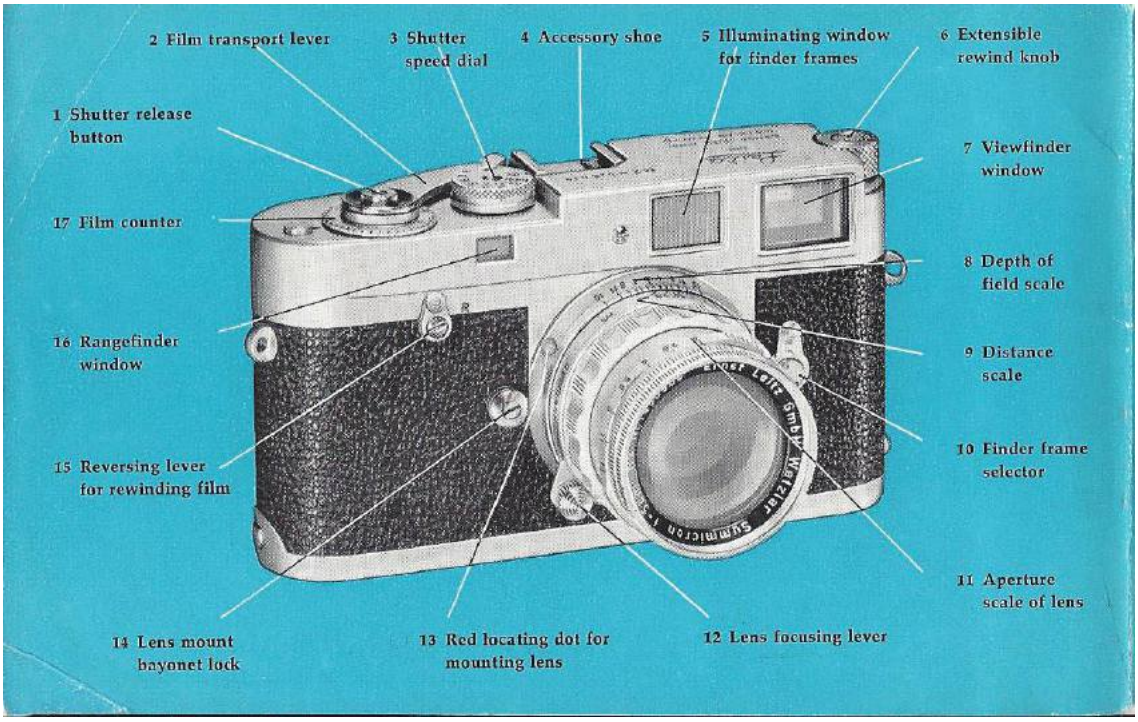
Leica M 2

INSTRUCTIONS IN BRIEF

11 – 36 a/Engl.



INSTRUCTIONS IN BRIEF

A. Taking the Picture

1. Set aperture (11) and shutter speed (3).
2. View subject through finder eyepiece (18). Focus lens (12) by superimposing double subject outlines in rangefinder field.
3. Release shutter (1).
4. Work transport lever (2) as far it will go: the LEICA is now ready for the next exposure.

Note: Always remember to remove the lens cap. Pull out and lock the lens barrel if lens has collapsible mount.
For best results use recommended Leitz lens-hood.

B. Changing the Lens

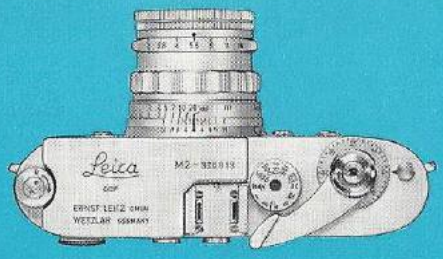
1. Depress bayonet catch (14), turn lens to the left, and lift out.
Important: Open lens mount should face user's body.
2. Insert new lens: align red locating dots on camera and lens mount, place lens in position, and turn to the right (clockwise) until lock engages with a click.

C. Inserting the Film

1. Unlock base-plate (25) and lift off, swing open camera back, and withdraw take-up spool.
2. Push film leader under spring of take-up spool.
3. Insert cassette and take-up spool into camera as shown on diagram on camera. The film must lie parallel to the bright guide-line. Gently work transport lever to engage sprocket teeth correctly in perforation holes of film. Then close back, replace base-plate, and lock.
4. Advance film, release shutter, advance film again, and release shutter a second time. Set film counter (17) to No. 0. The counter now counts every frame.
5. Set film type indicator (22).

D. Unloading the Exposed Film

1. Set reversing lever (15) to "R." Pull out extensible rewind knob (6) and turn in direction of arrow until film is completely rewound in cassette. Wind past a slight resistance as the film leaves the take-up spool.
2. Open base-plate and remove film cassette.



You are now a Leica owner

and have joined an immense international family of satisfied Leica photographers. We hope that you will enjoy using your Leica for many years – – – when you relax in your spare time, or when you need it for serious work. In constructing this Leica our scientists and engineers have successfully combined their great experience and long tradition of quality with the latest advances in optical and mechanical design. Their aim was to reduce technical matters to the basic essentials. This is why picture taking with the Leica is so simple and fascinating. Handling the Leica requires only a few operations that soon become second nature. But, before attempting to use your Leica, please read this instruction manual. Whatever its literary merits, it is well worth the very short time you'll need to study it thoroughly.

ERNST LEITZ GMBH WETZLAR GERMANY
Subsidiary: Ernst Leitz (Canada) Ltd., Midland, Ontario

FULL INSTRUCTIONS

Leica M 2

This Instruction Book

contains everything you should know about the LEICA M 2. At first practice handling the camera without a film. Carry on until you know all the steps by heart without needing to refer to this manual. You will get the hang of it quicker than you thought possible – handling the LEICA is much simpler than reading about it.

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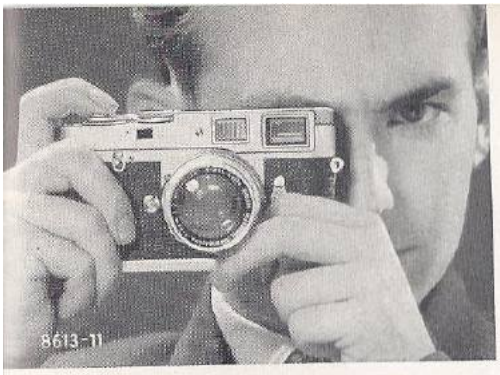
11 – 36 a/Engl.



Hold the

First of all get used to holding the Leica correctly. This is most important for quick and reliable shooting, and for high quality, pin-sharp pictures.

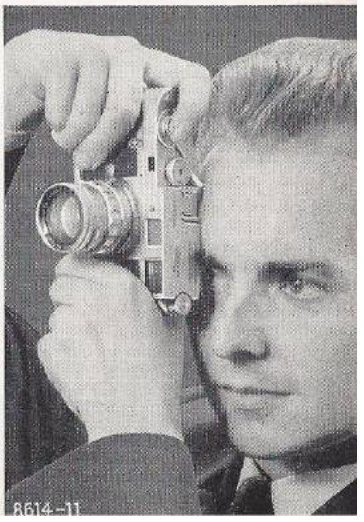
Grip the camera so that it rests in the palms of both hands. The right thumb rests lightly against the transport lever (2), while the right index finger just touches the release button (1). Use the left hand to focus the lens (9). Keep the right eye as close as you can to the finder eyepiece (18). Support the camera firmly against the forehead: the camera, your head, and your hands should form a rigid unit. The purpose of all this is to give the LEICA a solid support during exposure. This will avoid camera shake and yield negatives with that ultra-sharp definition characteristic of LEICA pictures.

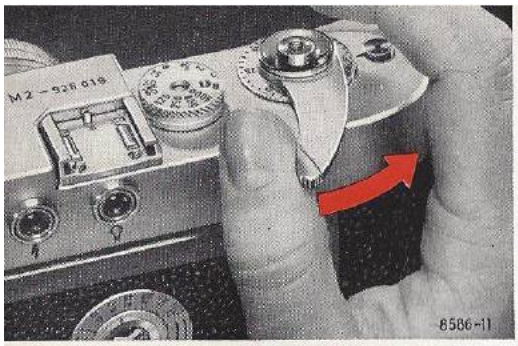
Camera Correctly

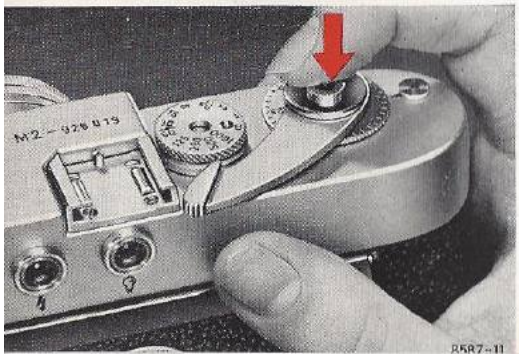
Try exposing at first with a shutter speed of 1/60 second or faster. After some practice you'll find yourself able to use even slower speeds without shaking the camera during exposure. If you find it more convenient you can, of course, equally well use your left eye for viewing and focusing.

To switch from horizontal to vertical pictures, turn the LEICA upright. The grip of the hands does not change appreciably: hold the camera in much the same way as for horizontal shots. Alternatively, you can bring the right hand down for vertical shots, and release the shutter with the thumb. In this case hold the camera so that the tip of the thumb lies against the release button, and the fingers can press against the camera from the bottom. Use the left hand to focus the lens. Rest the upper part of the camera against your forehead. With this hold you can release really smoothly.

Whether you take vertical or horizontal shots, you do not have to take the eye from the finder — a useful point with picture sequences, for the LEICA controls are all ideally located for ease of operation.







The Film Transport Lever (2)

Push the transport lever fully to the right with your right thumb. Alternatively, work it with a number of short strokes until it locks. Either way, this movement tensions the focal plane shutter of the LEICA and advances the film by one frame.

You cannot accidentally advance more than one frame at a time or make an exposure before the film has been properly advanced.

The Release Button (3)

Gently press down the release button with the right index finger. Never jerk it! You will hear the click as the shutter runs down. This exposes the film in the camera.

After each exposure lift your finger off the release button. This frees the mechanism so that you can operate the transport lever.

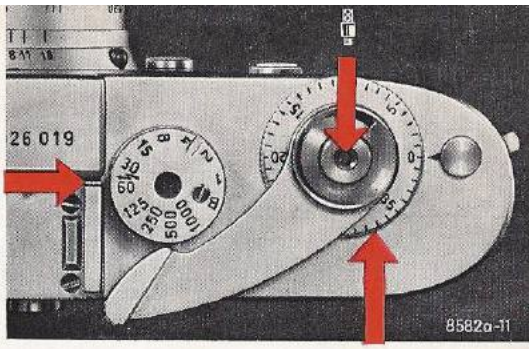
Setting the Shutter Speed (3)

The numbers on the shutter speed dial indicate fractions of a second. For example, 1000 is $^1/_{1000}$ second, 125 is $^1/_{125}$ second, 4 is $^1/_4$ second, and 1 is $^1/_1$, or one full second. The dial engages at each speed; you read the setting next to the small index line on the accessory shoe. When set to B, the shutter remains open as long as the release button is depressed. The red symbol of a lightning flash indicates a shutter speed of $^1/_{50}$ second for synchronizing electronic flash.

Intermediate shutter speeds can also be set within the range of 1 to $^1/_8$ second, between $^1/_{15}$ and $^1/_{30}$ second, and between $^1/_{60}$ and $^1/_{1000}$ sec.

The shutter release button will take a standard screw-in cable release for time exposures. Use a tripod for these.

The shutter speed dial can be coupled with the LEICAMETER MC exposure meter (see page 20).



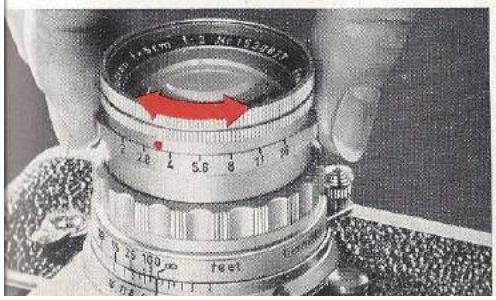
The Film Counter (17)

automatically indicates the number of frames exposed. When loading a new film set the counter disc to No. 0 (see also page 27.)

The Lens Aperture (11)

Turning the lens aperture ring opens or closes the iris diaphragm. This may easily be observed by looking into the front of the lens. Like the iris of your eye which opens or closes to adapt itself to weaker or stronger light, the lens diaphragm is used to regulate the amount of light reaching the film. To cut down very bright light we "stop down" to a small lens aperture. In very dim light, on the other hand, we "open up" to a larger lens aperture which transmits more light to the film.

The aperture f/numbers (stops 2 — 2.8 — 4 — 5.6 — 8 — 11 — 16 — 22 — 32*) follow an internationally recognized scale. This scale has been designed in such a way that by closing down the aperture one stop you cut down the light passing through the lens to one half. Conversely, opening up one stop doubles the amount of light that will reach the film. One aperture interval on the lens corresponds to one shutter speed interval on the shutter speed selector dial.



Remember: The larger the f/number, the smaller the aperture.

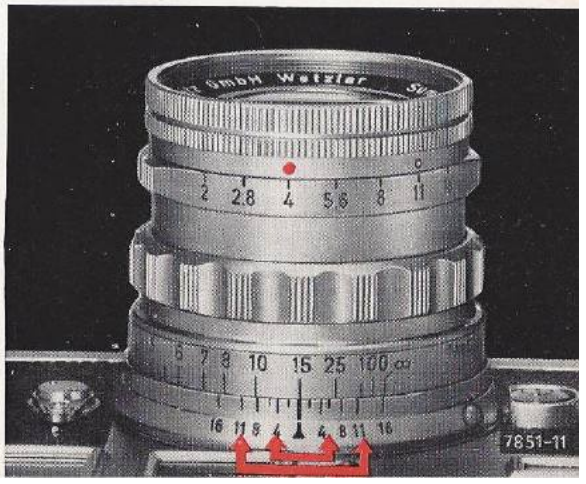
* The length of this scale of numbers depends on the type of lens.

The Depth of Field Scale (8)

The sharpest parts of the image correspond to objects at the exact distance (in a plane parallel to the film) on which the lens is focused. This maximum sharpness gradually falls off in front of, and behind, the focused distance. There is, however, a certain zone of acceptable sharpness, known as the "depth of field." Its extent depends on the subject distance, the focal length of the lens, and the lens stop used. Stopping down increases the zone of sharpness, while the full aperture of high-speed lenses yields only a limited depth of field.

The depth-of-field scale of every Leica lens shows what depth you have available. At any aperture two index lines of the same aperture number indicate the limits of the sharp zone. If for instance (see illustration) you have set the 50 mm. Summicron f/2 lens to 15 feet, the available depth of field with an aperture of f/4 extends from about 12½ to 20 feet. If, however, you stop to f/11, the depth ranges from about 9 to 40 feet.

The depth of field can also be estimated with the rangefinder (see page 13).

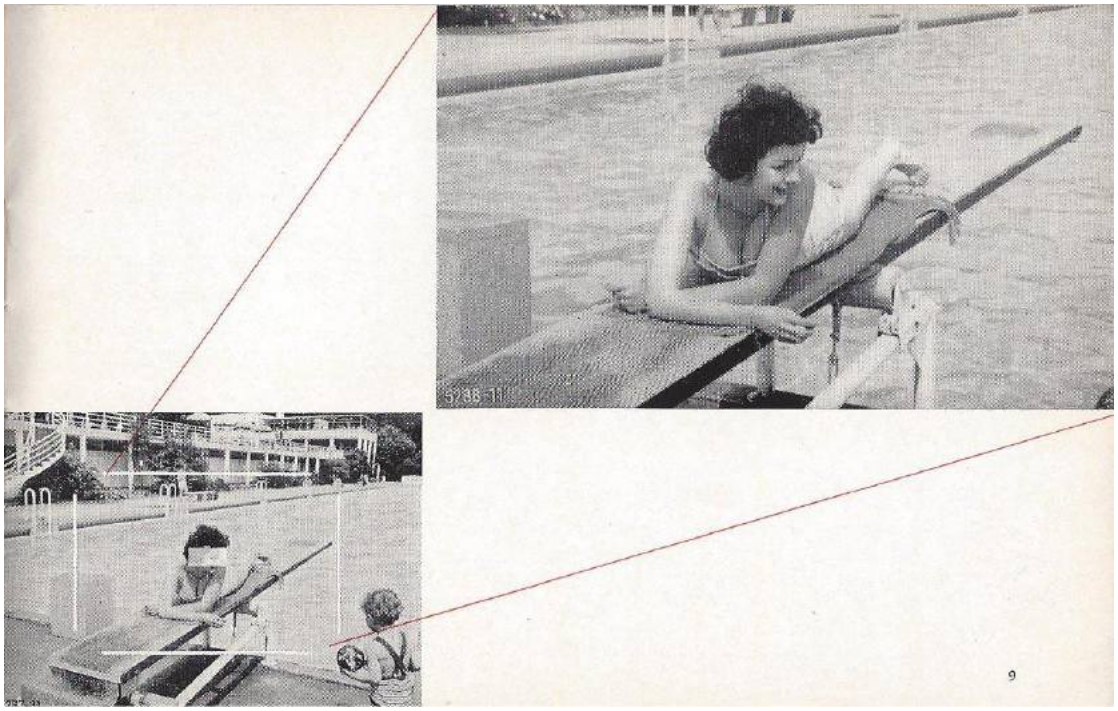


The brilliant viewfinder field frames

of the LEICA M 2 automatically frame the subjects covered by the lens in use. The frames correspond to focal lengths of 35 mm, 50 mm, and 90 mm. As the LEICA has an optical direct-vision finder, you see the subject all the time — even at the instant of exposure. The film records everything within the bright line-frame — even if you look obliquely through the finder.

The brilliant frame is coupled to the focusing movement, and automatically shifts to compensate for parallax errors over the entire focusing range. Shots with "cut-off" heads or feet are therefore a thing of the past!

This is what you see through the Leica M 2's combined range-viewfinder when a 50 mm lens is used.



The Automatic Finder Adjustment for 35-, 50-, and 90 mm lenses.

Whenever any 35-, 50- or 90 mm Leica lens is inserted into the M 2 camera's bayonet mount the correct focal frame automatically appears in the viewfinder. The area outlined by these frame-lines shows exactly what will be on the negative, and the surrounding image field serves to keep the photographer aware of what's going on so that he is prepared for instant action with fast-moving subjects. As you focus note that the highly illuminated field-frames shift to afford continously automatic parallax compensation at all focusing distances.

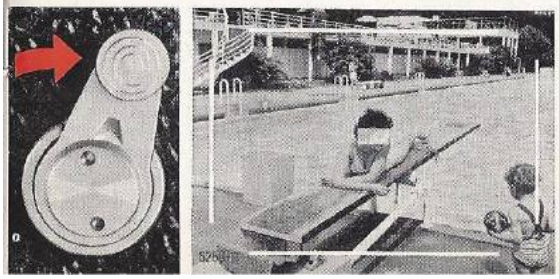
Vertical lever position:
Field of view for 50 mm. lenses.

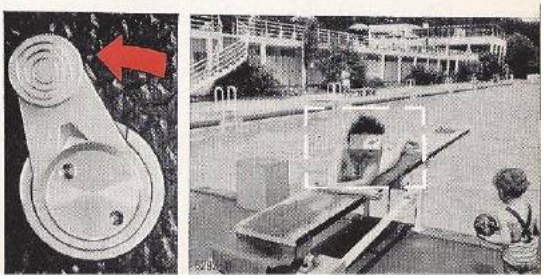
The Finder Frame Selector (10)

With this small lever you can at any time switch from the finder frame of the lens in the camera to either of the two other frames. You can therefore judge in advance which lens will produce the best result, without having to change the lens itself. Then, when you have made up your mind, it takes only a few seconds to fit the required lens.

Lever pointing outwards:
Field of view for 35 mm. lens

Lever pointing inwards:
Field of view for 90 mm. lens





The Distance

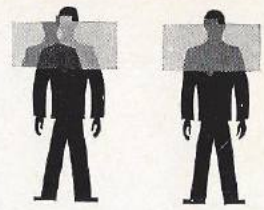
can be set directly on the distance scale of the lens, or with the aid of the rangefinder.

Some lenses lock in the infinity position. Depress the infinity catch to release this lock for focusing at closer distances. Remember also to extend and lock the barrel of collapsible lenses (see page 15). The old way of focusing by scale is, however, less important with the LEICA, as you set the distance much more rapidly and accurately with the built-in rangefinder.

The Leica's coupled rangefinder is the fastest, easiest and most efficient focusing method. It requires a small amount of practice to master, but this is easily aquired and a great deal of fun.

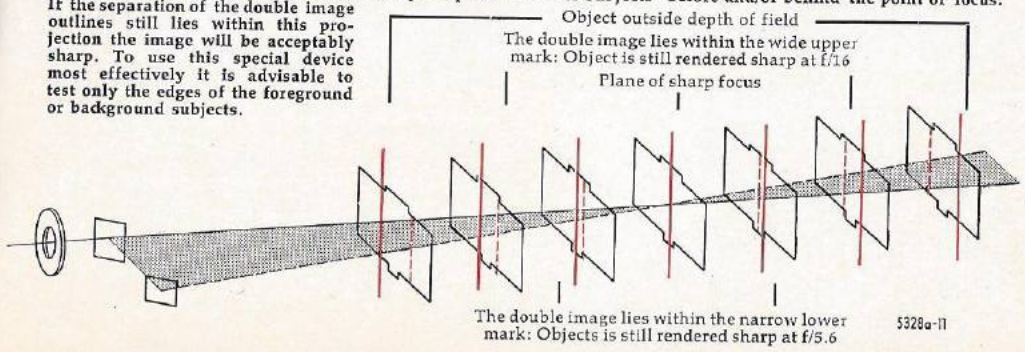
First set the lens to infinity. Now observe, say, a window a few yards away through the rangefinder. Watch the bright sharp rectangle in the centre of the finder area: this is the rangefinder field. Hold the LEICA so that the vertical window bar cuts through the rangefinder field. Inside that field you will see a double image, in other words a second image of the window bar or edge which appears to the left of the main one. This indicates that the lens is not correctly focused on the window. Now adjust the focus while still looking through the finder: the second image in the rangefinder field moves to the right, until it coincides with the stationary outline. You have now accurately set the distance by what is known as the **coincidence method.**

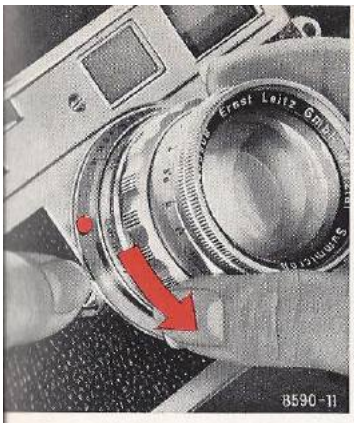
With vertical lines it is often easier to set the distance by the **split-image method.** Here you watch the displaced section of the vertical line in the rangefinder field. That section moves along the horizontal boundaries of the field as you adjust the lens, until the image becomes continuous down the whole finder area. At this point the lens is again set exactly to the correct distance.

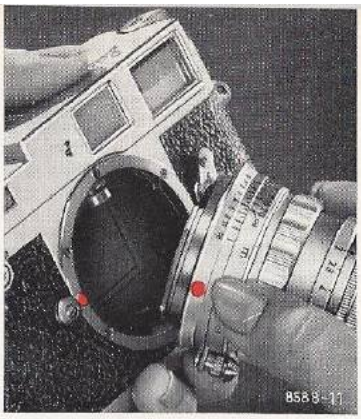


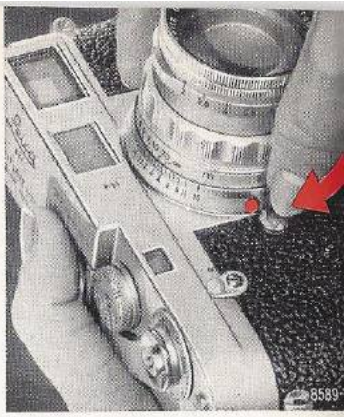
The Optical Depth-of-Field Indicator in the Rangefinder

The rangefinder of your Leica M 2 also enables you to check whether a subject in front of, or behind, the point of sharpest focus will be acceptably sharp or not. For this you use the special projections at the top and bottom edges of the rangefinder field rectangle. These projections show the depth-of-field for a standard 50 mm lens, the lower for the all-around aperture of f/5.6, the upper for f/16. After focusing on the subject of major importance the appropriate projection is superimposed on other subjects before and/or behind the point of focus. If the separation of the double image outlines still lies within this projection the image will be acceptably sharp. To use this special device most effectively it is advisable to test only the edges of the foreground or background subjects.









Changing Lenses

To remove the lens, press the catch (14), turn the lens to the left (counter-clockwise), and lift it out of the bayonet mount. Grasp the lens at its base, close to the camera body.

To insert the lens align the red dot on the lens mount opposite the red dot on the camera body. Turn the lens to the right (clockwise) until the bayonet lock engages with an audible click.

The Interchangeable Lenses of the LEICA M 2

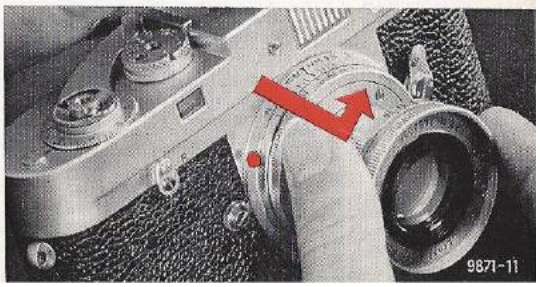
Your choice of focal lengths ranges from 21- to 400 mm., with apertures as fast as f/1.4. With this wide variety of logically selected focal lengths, from super wide-angle to extreme long-focus, you can select any viewpoint and have complete control over subject field and perspective.

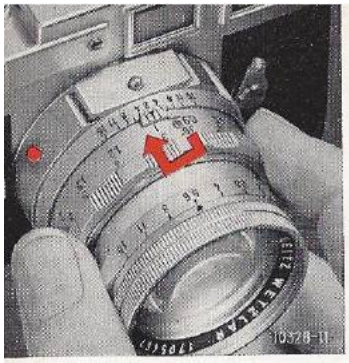
In an nutshell, the LEICA M 2 with its large family of interchangeable lenses is limited in application only by the photographer's own imagination.

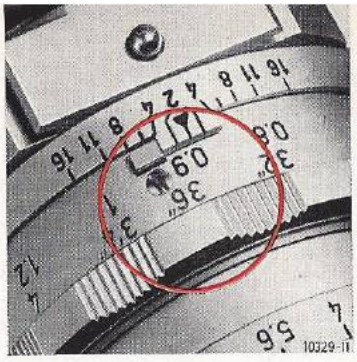
A few words of caution: Avoid changing lenses in strong direct light. When necessary, turn your back to the sun and use your body to shield the lens-opening.

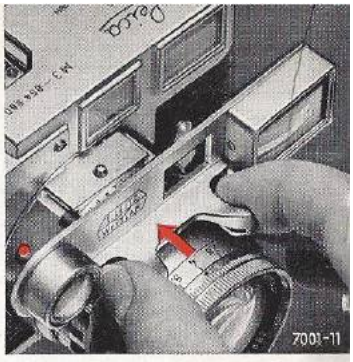
The Collapsible Lenses

Some of the LEICA lenses (e. g., the 50 mm. Elmar and the collapsible 90 mm Elmar) can be collapsed when not in use by turning to the left (counter-clockwise) and pushing the barrel into the camera body. For picture-taking fully extend the lens barrel and lock by turning to the right (clockwise) as far as it will go. The 90 mm collapsible Elmar lens can only be focused when properly extended and locked.









The 50 mm. Double-range Summicron

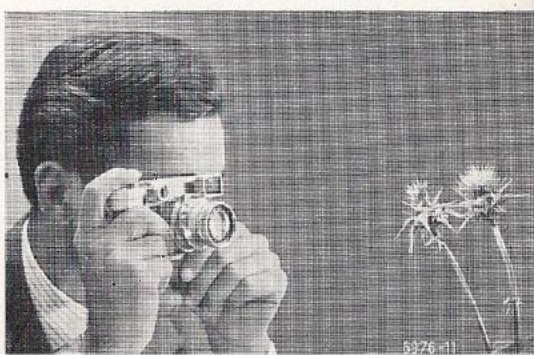
This version of the 50 mm. Summicron has two focusing ranges:

1. The normal range from infinity to 3′ 4″ (1 metre);
2. The close-up range from about 35 to 19 inches (89 to 48 cm). This is measured from the film plane to the subject.

Focusing in the Near Range

Set the lens to 3½ feet (1 metre) as shown in illustration 1. Pull the focusing mount forward, and turn it past the end stop into the 35 inch (89 cm.) position (illustration 2). The lens remains locked in this position until the optical finder attachment is pushed home into its special fitting. This releases the focusing movement for the close-up range (illustration 3). You can shoot with the camera held in the hand or mounted on the tripod. You focus the lens automatically with the coupled rangefinder. The finder image frame is still coupled with the focusing movement in the near range for parallax-compensated viewing.

As the depth of field decreases rapidly at close subject distances, it is advisable to work with a small stop, say f/8 or f/11. See page 13 for depth-of-field marks in the rangefinder.



Coated Lenses

The modern coated LEICA lenses exhibit a purple sheen on their glass surfaces. This coating acts to reduce internal reflections, thereby enhancing the optical quality of the lens as well as increasing its light transmission. The outer lens surfaces are specially hard-coated, and will therefore stand up to normal cleaning.
In addition to its name, every LEICA lens also carries its own serial number engraved on the front mount. Make a note of this number, as well as of the serial number of your LEICA; it may prove to be of great help in case of loss.

Take Care of your Lenses

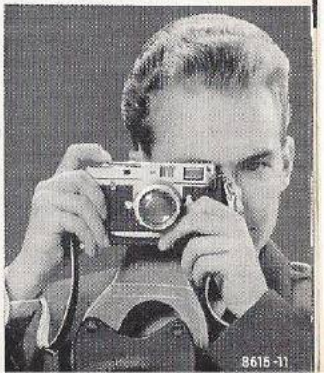
Always protect the front surface of the lenses against dirt of any kind. A light yellow filter (with black-and-white film) or a colorless ultraviolet filter (for color shots), left permanently on the lens, will protect the surface against outside influences (e. g., against sand or salt-water spray at the seaside). The lens hood, too, guards the lens against accidental contact with your fingers and against rain, in addition to its main purpose of preventing unwanted light-rays from entering the lens. Remove dust from the lens surface with a soft camel's hair brush; if nothing else is available, use a clean, dry, and soft linen rag.

Lens Hoods

protect the lens against stray light (which might cause flare), and also against rain and snow.
Hold the lens hood so as to press in the two spring clips, place it over the lens, and let it engage.

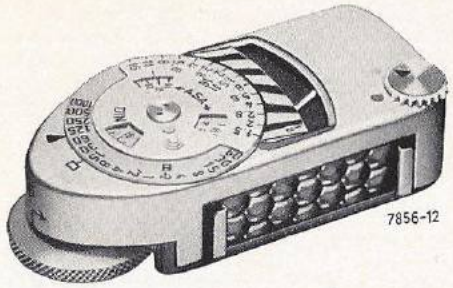
Filters

screw over the front of the lens. In special cases two filters can be mounted on top of each other. Please ask for our detailed filter leaflet.



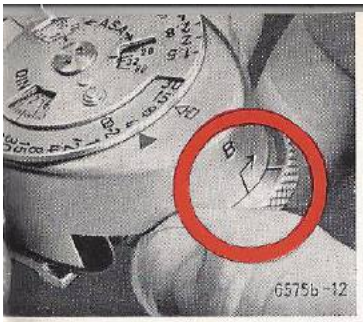
The Ever-ready Case

protects the LEICA M 2 yet keeps it ready to shoot all the time. The lid of the ever-ready case is pivoted so that it hangs down and out of the way, even for vertical shots.



The LEICAMETER MC

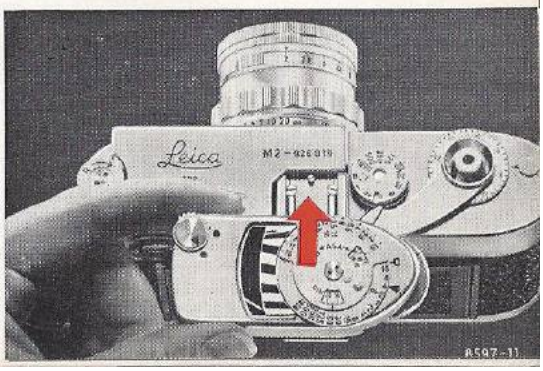
helps you avoid wrong exposures, especially with color films which require very accurate exposure. The meter ensures consistently exposed pictures under the most varied lighting conditions.

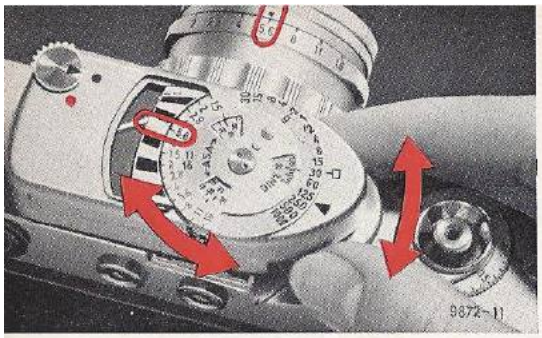


Before fitting the LEICAMETER MC set the shutter speed dial of the LEICA M 2 to B. Then rotate the milled setting ring of the exposure meter in the direction of the arrow as far as it will go. The index line on the ring should coincide with the index line on the meter housing, as shown in the illustration opposite. Now lift up the ring and continue turning in the direction of the arrow. The triangular index mark on the meter body will then be opposite one of the figures between 4 and 120 on the setting ring.

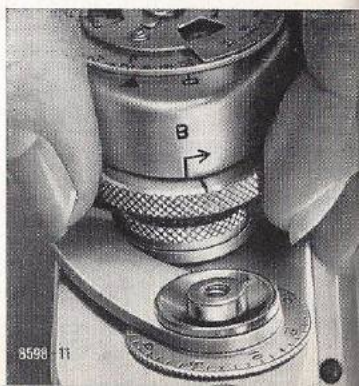
Next push the LEICAMETER MC fully home into the accessory shoe of the camera. Turn the milled setting ring of the exposure meter backwards again **against the direction of the arrow** until you hear it engage with a click in the shutter speed dial of the camera. The camera is now coupled with the exposure meter.

To remove the LEICAMETER MC, uncouple the milled setting ring from the shutter speed dial by setting it to B, lifting up, and turning in the direction of the arrow until the triangular index mark is opposite one of the figures between 4 and 120.





Remember to set the ®LEICAMETER MC to the speed rating of the film in use. Your LEICAMETER MC has two measuring ranges — red and black — which are set directly on the instrument. A third range — for extremely dim light conditions — requires the use of a booster cell. With normal subjects take a reading by pointing the camera and exposure meter at the subject. Turn the milled setting ring to bring one of the black aperture numbers from 1.4 to 16 opposite the black or white sector indicated by the pointer. As you bring your chosen aperture into line with the pointer reading, you automatically set the corresponding correct shutter speed on the camera. You can read off the speed in use opposite the black triangular mark on the meter. Before exposing you only have to set the selected aperture on the lens. If the pointer does not give a reading with dark subjects, set the meter for the second range by turning the range switch to the red dot. Take the reading in the same way as before, but use the red aperture numbers for aligning with the pointer.



To keep the ®LEICA instantly ready for action it is a good

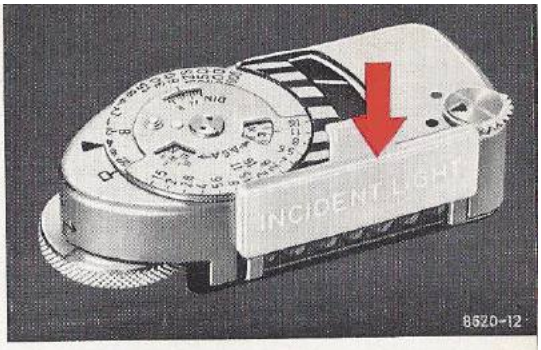
®= LEICA and LEICAMETER are registered trade marks.

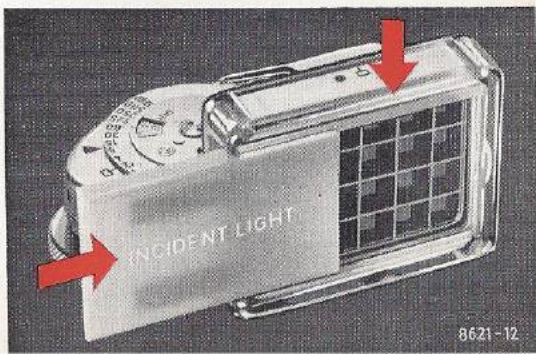
idea to set the lens aperture to f/5.6 — a sort of ever-ready stop. Then you only have to set the black aperture figure 5.6 to the pointer position of the LEICAMETER MC. (See also page 6.)

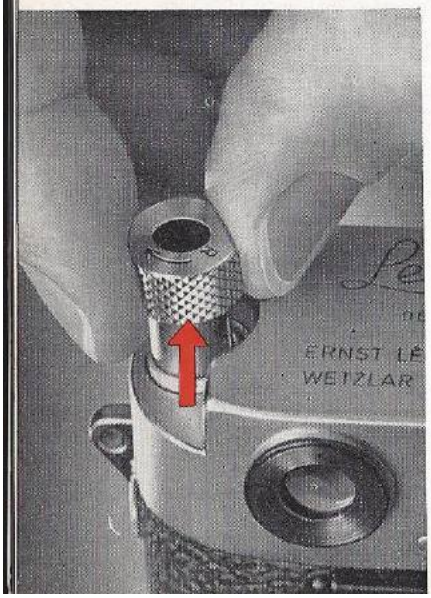
For exposure times between 2 and 120 seconds set the milled ring of the exposure meter to B. Lift it to **uncouple**, and turn in the direction of the arrow. Complete taking the reading as described above. The exposure time is read off opposite the small triangular index on the meter. Expose for the appropriate time, using a tripod, preferably with a cable release.

When taking readings with the supplementary booster cell, read off the exposure time against the small square symbol. Then re-set these exposure times opposite the black triangle. These exposures are four times as long as obtained with the red scale of aperture numbers.

The diffusing screen for incident light readings fits in front of the meter cell. From behind the camera you see a protruding tongue when the screen is there. (See special instruction booklet for the LEICAMETER MC).

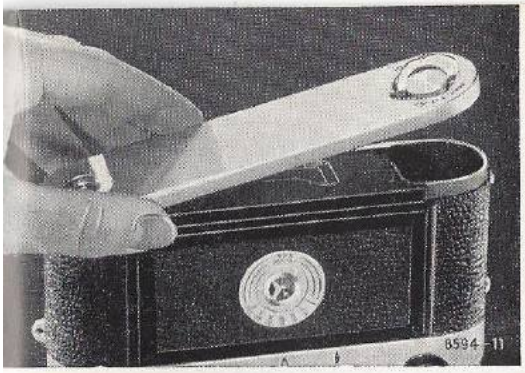


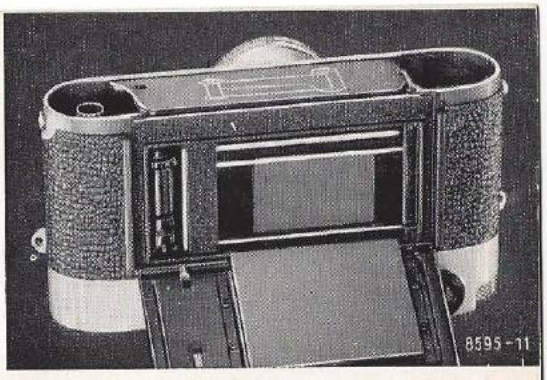




Loading the Camera

Although daylight cassettes are light-tight, avoid loading or unloading the camera in brilliant light. Out of doors the shade of your own body will provide reasonable protection. Also, do not leave exposed or unexposed cassettes of film lying about. Keep them safely in a cassette tin, or wrapped in black paper, until you are ready to develop them.





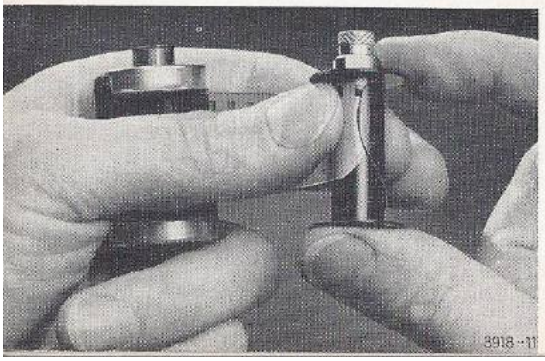
Before opening the camera, make sure that it does not already contain a film. To do this, pull up the rewind knob (15) and turn it in the direction of the arrow. If you feel a resistance there is a film in the camera. Fully rewind that film and unload as described on page 28. Turn the key in the base plate in the direction marked "auf—open", and lift off the base plate. The film cassette and the take-up spool are now easily withdrawn. Open the hinged camera back, and place the camera in front of you on the table with the open base upwards, and the lens facing you.

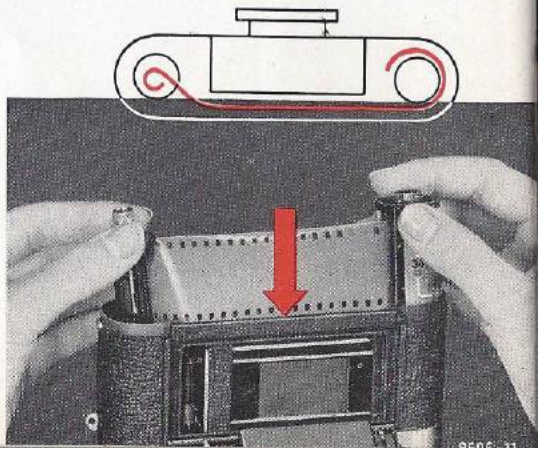
(For illustrative reasons the camera is shown here with the lens facing away from you.)

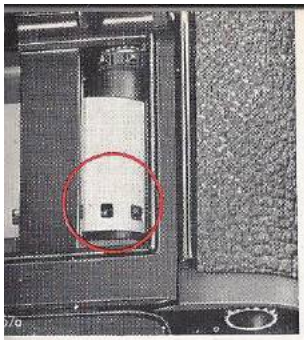
Hold the take-up spool in the right hand, and the cassette in the left, both with the spool knobs pointing up. Now push the beginning of the film under the clamping spring of the take-up spool as far as it will go. The perforated film edge must lie close against the spool flange, as shown in the illustration.

Next, draw out just enough of the film leader from the cassette so that you can insert the two parts — the cassette and the take-up spool — into the camera. The milled spool knobs should still point upwards and remain visible while the film slides into the film slot in front of the open camera back.

The film cassette and the take-up spool must be fully pushed home to ensure that the film lies properly between the guides.



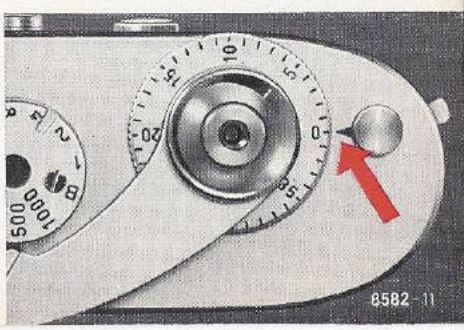




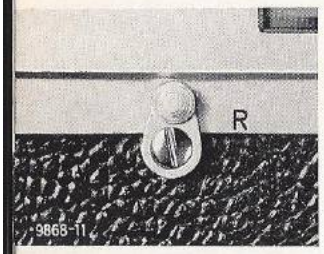
Check that the position of the film corresponds to that shown in the diagram. The matt emulsion side must face the lens and the focal plane shutter; the take-up spool winds the film with the emulsion side outwards. The edge of the film must be parallel to the bright metal guide-line of the film channel. Gently pull the transport lever to engage the teeth of the transport sprocket in the perforations of the film. Now close the camera back, replace the base plate, and lock it.

The length of film between the cassette and the take-up spool is of course already fogged and useless for taking pictures. It must therefore be wound on once the camera is closed to bring a fresh unexposed portion of the film into position in the film aperture. Work the film transport lever, and release the shutter. Repeat this. Then set the film counter to No. 0. Pull the film transport lever once more as far as it will go: the film counter now indicates No. 1, and the LEICA is ready for the first exposure.

Check that the film advances properly. The red dots on the shaft of the rewind knob must rotate while the film is being wound on.



Unloading the Camera



When you have exposed the whole film, the transport lever can no longer be moved. This indicates that the film must be rewound into its cassette. Set the reversing lever to "R" (15) and leave it there while you pull up the rewind knob (6) as shown on the illustration on page 24. Turn the rewind knob in the direction of the arrow until you feel a definite resistance. Wind past this resistance, and give the rewind knob a few more turns. Then you can open the camera and remove the exposed film cassette.

You can also expose only a part of the film, say the first ten frames, rewind it, and change to another film (e. g. color). If you intend to do this be careful when rewinding. Give the rewind knob only one more turn after winding past the resistance as the film comes off the take-up spool. This leaves a short piece of film protruding from the cassette, which permits reloading later on. When you insert the partly exposed film again, proceed as with an unexposed film (page 24). **Cover the lens with the lens cap,** and then keep releasing the shutter and advancing the film until the film counter indicates one frame more than the number of pictures you had previously exposed.

35 mm. Films

Film manufacturers all over the world pack 35 mm miniature films in cassettes ready for loading into the Leica. There is a wide variety of films on the market for many different purposes. We will mention here only the speed of the film, since this is important for correct exposure.

Medium Speed Films
of about 32 to 100 ASA or 16 to 21 DIN are standard all-round emulsions. Their good gradation, fine grain, high resolving power, and wide exposure latitude yield negatives suitable for first class enlargements.

High Speed Films
of about 160 to 400 ASA or 23 to 27 DIN are special emulsions for exposure in poor light without the use of flash (interiors, theatre and night shots), or where fastest shutter speeds are essential (e. g. sports subjects). Their grain is coarser and resolving power limited.

Slow Films
of about 8 to 20 ASA or 10 to 14 DIN are also special materials, but offer the finest grain and maximum resolving power for reproducing accurate detail. They are suitable for copying, architectural shots, and technical subjects.

To Set the Film Type Indicator (24)

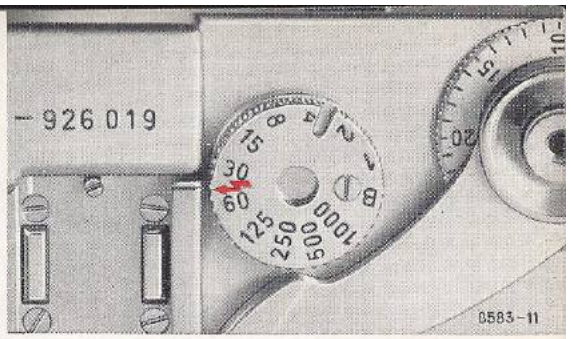
in the camera back, press one finger lightly against the centre, and turn the disc to mark the type and speed of the film loaded in the camera. Symbols indicate black-and white film, daylight color film (sun on a red background) or artificial light color film (lamp on a red background). One of the three pointers, next to the appropriate symbol, should point to the film speed in ASA or DIN.

Using Flash

All electronic flash units and most types of flash bulbs can by synchronized with the LEICA M 2. "Synchronization" means that the flash lights up at the exact instant when the shutter opens. A flash gun bracket can be attached to the base plate of the LEICA.

Two flash outlets at the back of the LEICA take the flash plug of the cable from the flash unit.

The left hand outlet, marked by a symbol of a **lightning flash** is intended for electronic flash and type F (focal-plane) flash bulbs. With electronic flash you set any shutter speed between 1 second and the red arrow which stands for 1/50 second. The effective exposure time is, of course, governed by the flash duration of the electronic flash tube and the film exposure is controlled by adjustment of the lens aperture.



The right hand outlet, marked by a symbol of a **flash bulb,** is used for synchronizing type M flash bulbs. With suitable type M bulbs you can use very fast shutter speeds.

Both electronic flash units and flash bulbs can be connected at the same time.

Protective plugs are available to cover the two flash outlets. To keep out dirt, as well as to avoid using the wrong outlet, uncover only the outlet you need at any time.

Exact details about flash bulbs, guide numbers, and suitable shutter speeds are given in the flash table for the LEICA M 2.