

INSTRUCTIONS

LEICINA SUPER RT-1



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Instructions

LEICINA SUPER RT-1

The LEICINA® SUPER RT-1 is a fully electronic, automatic movie camera for Super 8 film cassettes. It functions equally for the beginner as well as the sophisticated movie maker.

All important camera functions can be controlled and observed in the viewfinder while filming.

For the advanced film maker, the LEICINA SUPER RT-1 offers increased versatility

for special effects. All controls may easily be operated by one hand.

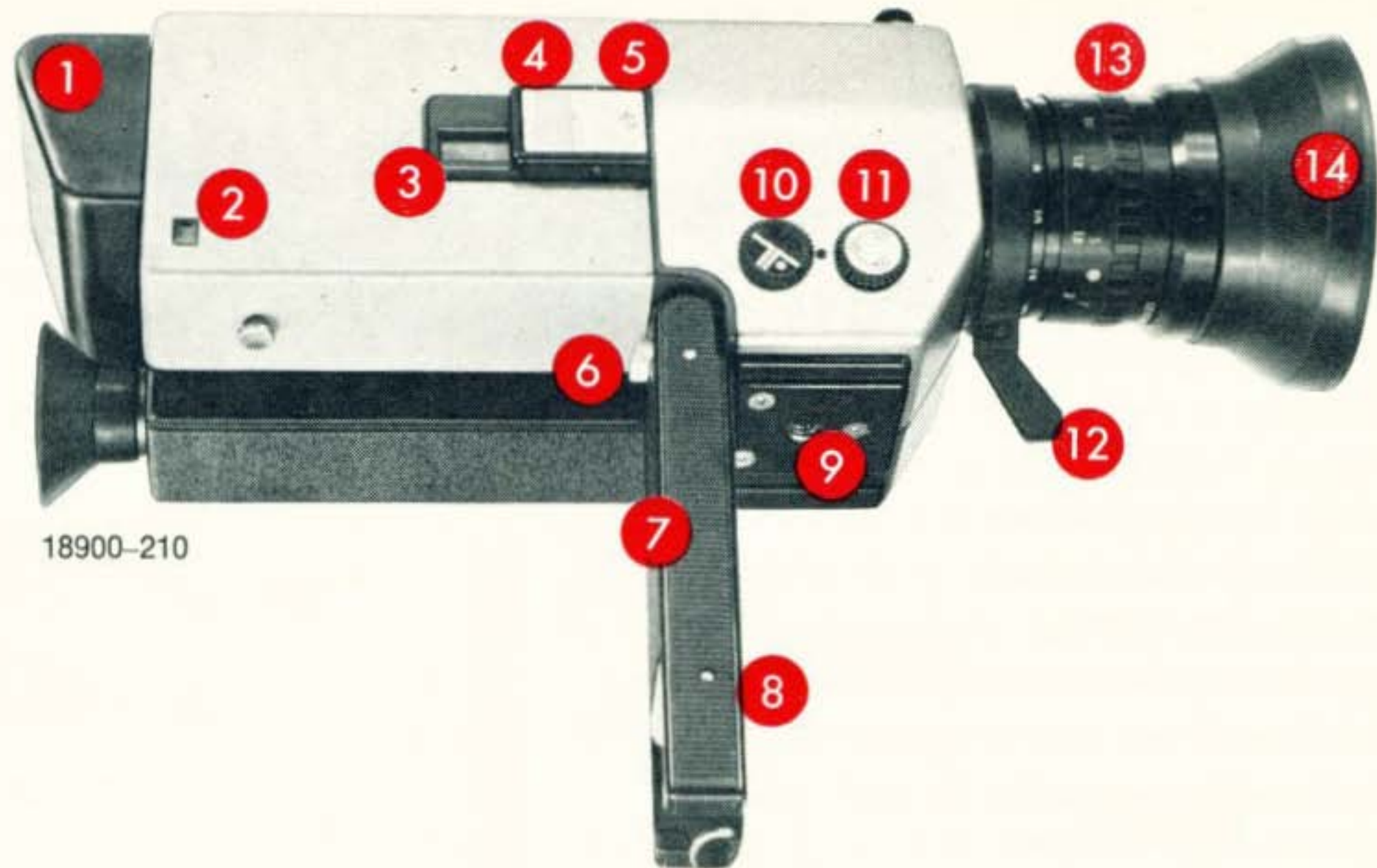
Although the LEICINA SUPER RT-1 requires no special skills, we recommend that you follow the operating instructions carefully. Correct handling will increase the pleasure of film making.

Before filming, please review the check list of instructions at the end of this booklet.

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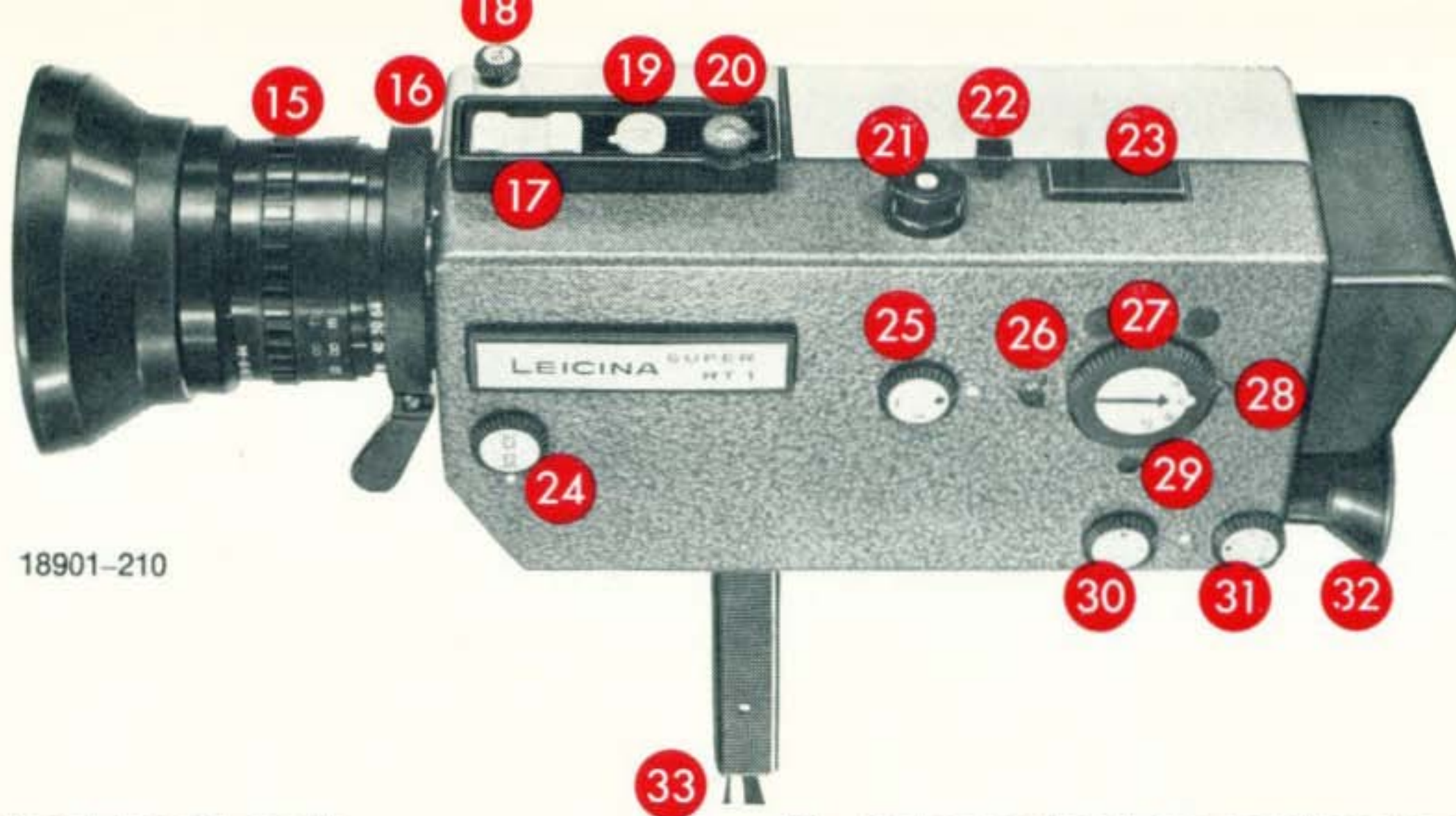
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Identification of controls



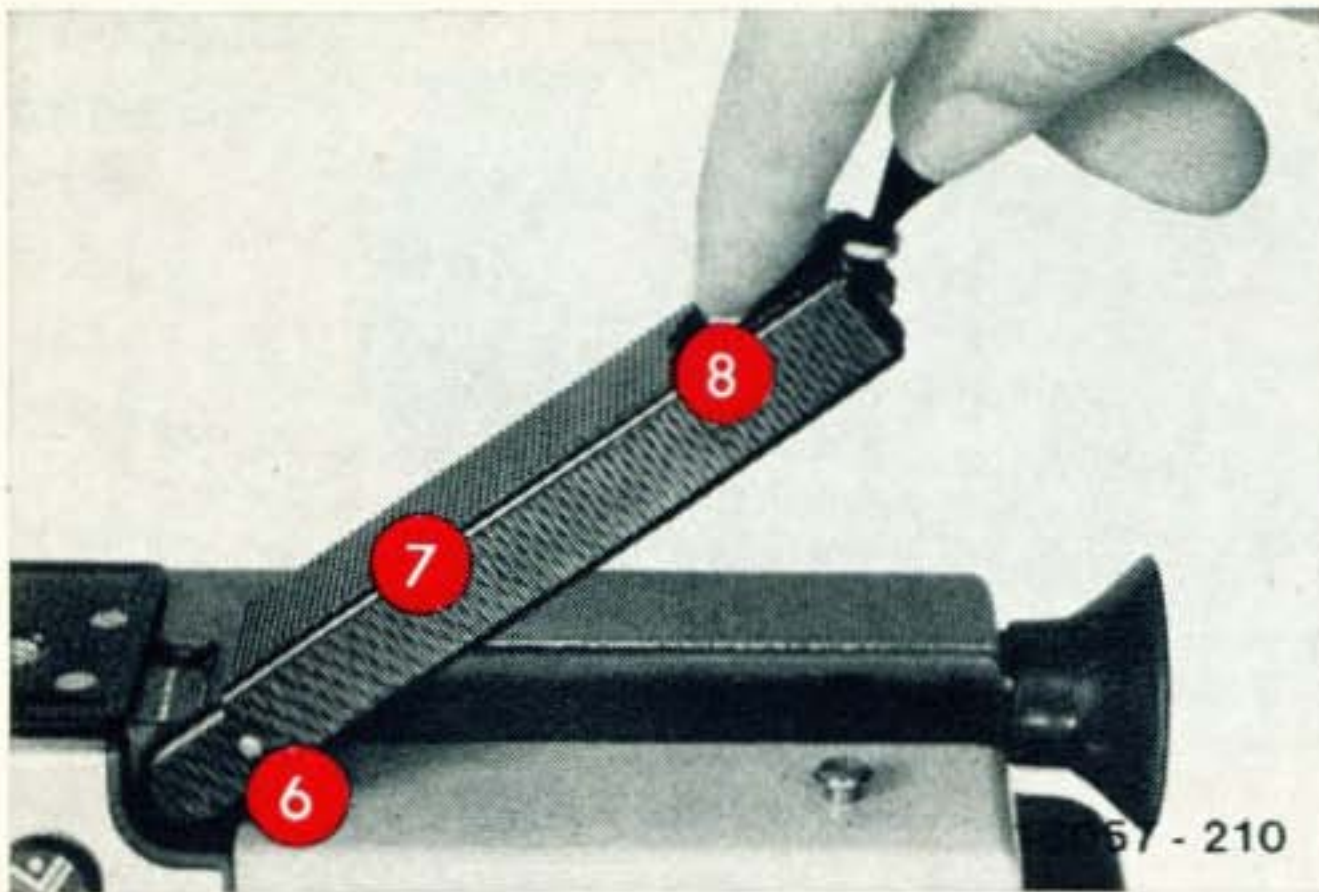
1. Removable forehead rest and battery housing
2. Battery test indicator
3. Film-type indicator window
4. Cassette chamber lock
5. Film plane index
6. Release
7. Hinged handgrip
8. Handgrip lock

9. Tripod bushing
10. Knob for type of film and illumination
11. Knob for exposure correction
12. Lever for manual control of zoom
13. 8mm to 64mm LEICINA VARIO f/1.9 zoom lens
14. Divisible lenshood. Accepts filters and supplementary front lenses
15. Focusing ring



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- | | |
|---|---|
| 16. Zoom focal length scale | 25. Selector knob for continuous running; single-frame or time exposure |
| 17. Rocker switch for power zooming | 26. Frame counter |
| 18. Button for 54 f.p.s. (slow motion effect) | 27. Frame speed selector |
| 19. Button for rapid power zoom (can be locked down) | 28. Speed selector locking button and battery test |
| 20. Diaphragm arresting button (can be locked down) | 29. Light indicating open shutter and/or operation of camera |
| 21. Second release with cable-release bushing | 30. Knob for blacking out viewfinder |
| 22. Button for power film rewind | 31. Eyepiece diopter adjusting knob |
| 23. Nine-pin receptacle | 32. Viewfinder eyepiece |
| 24. Selector knob for synchronizing impulses; 1 pulse per frame or 1 pulse every fourth frame | 33. Carrying strap |



Operation

Handgrip and release button

Depress lock (8) and swing out handgrip (7). This exposes release button (6).

Holding the camera correctly

The LEICINA SUPER RT-1 is designed so that the handgrip may be held in either the right or left hand. The thumb is positioned on release button (6). The other hand grasps the camera body. Index and middle fingers are free to operate buttons (19) and (20), zoom rocker switch (17), or button (22) for film rewind. The forehead rest (1) is pressed against the forehead for a solid three-point support.

The operating buttons are positioned direct above the handgrip assuring maximum steadiness.



Batteries for LEICINA SUPER RT-1

Five double "AA" penlight batteries supply power for all camera functions. The batteries are contained in the removable forehead rest.

All batteries of size R6 (in U.S.A.: AA) can be used in the LEICINA SUPER RT-1. These are readily available in every country.

Here is a list of batteries we have tested and can recommend:

Eveready 1015

Eveready E 91

Mallory Mn 1500

Ever Ready HP 7

Berec HP 7

Varta Pertrix 244

Daimon 298

Piles Wonder "Orest"

Hellesens 738

Made in:

U.S.A.

U.S.A.

U.S.A.

U.K.

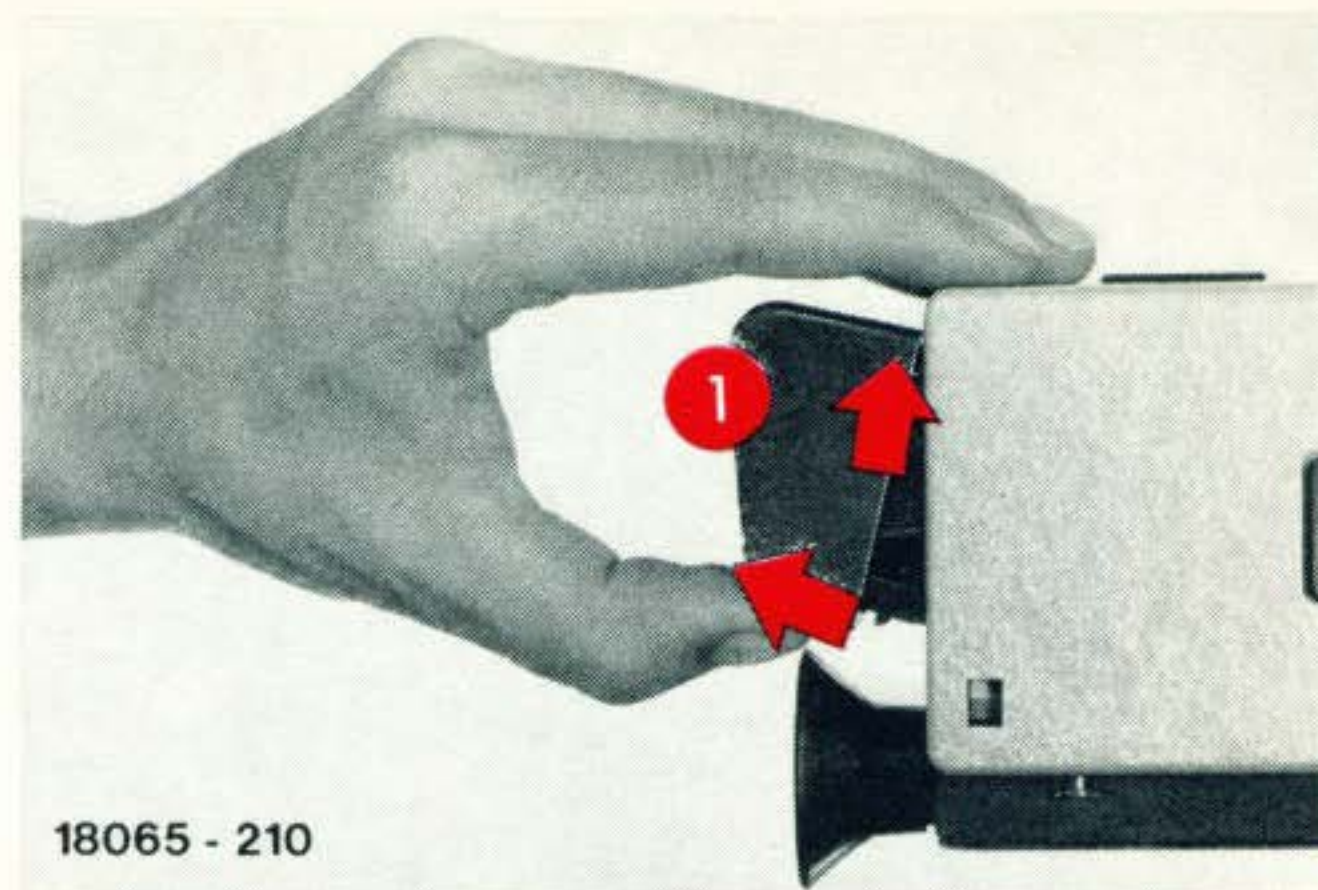
U.K.

West Germany

West Germany

France

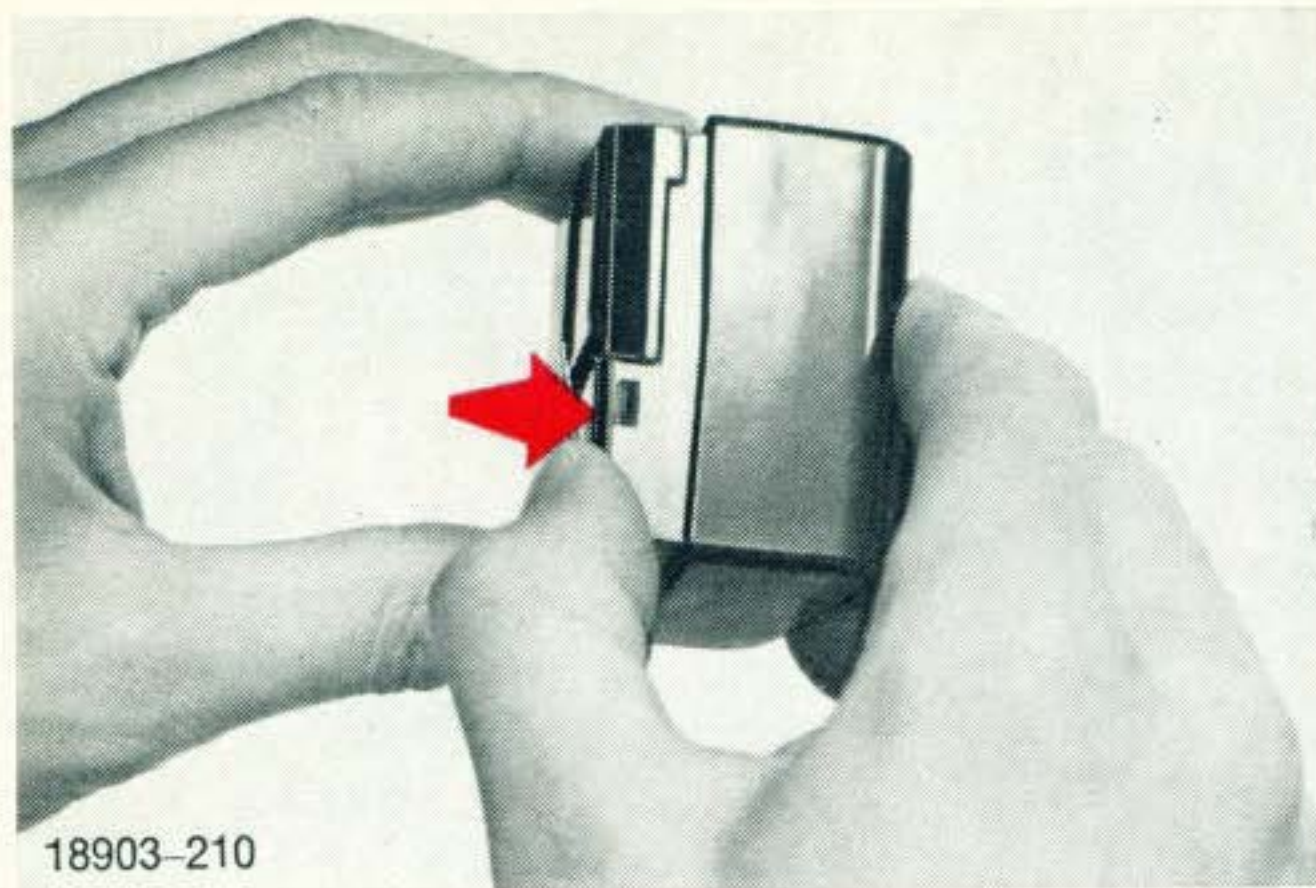
Denmark



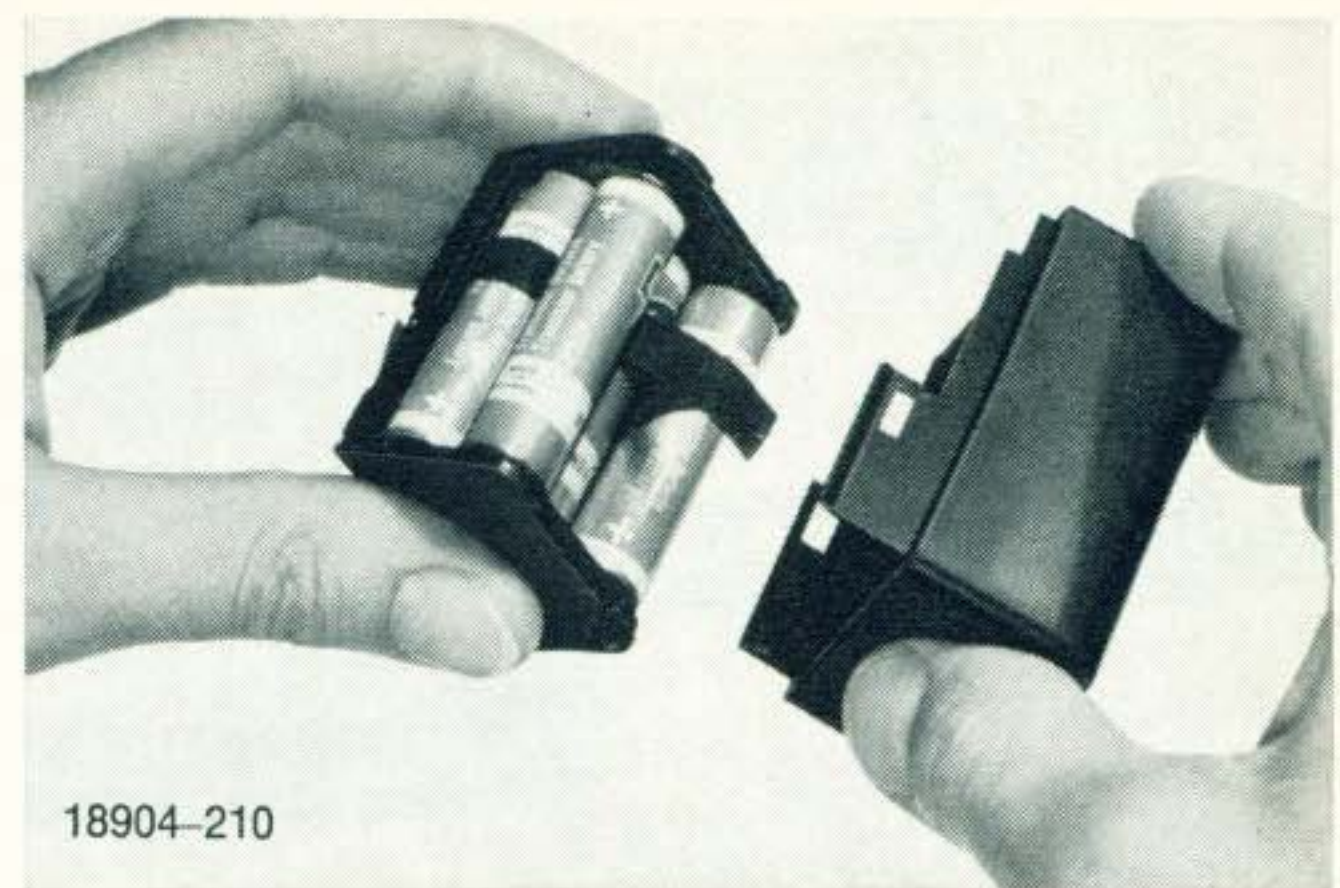
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Installing batteries and testing

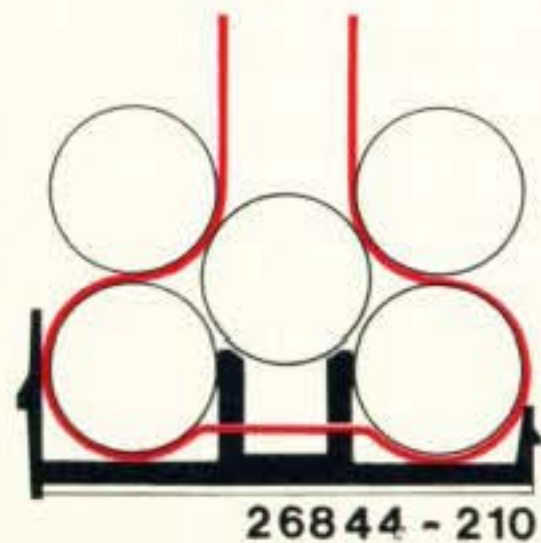
Push up on the forehead rest and seing it to the rear. Open the battery housing by

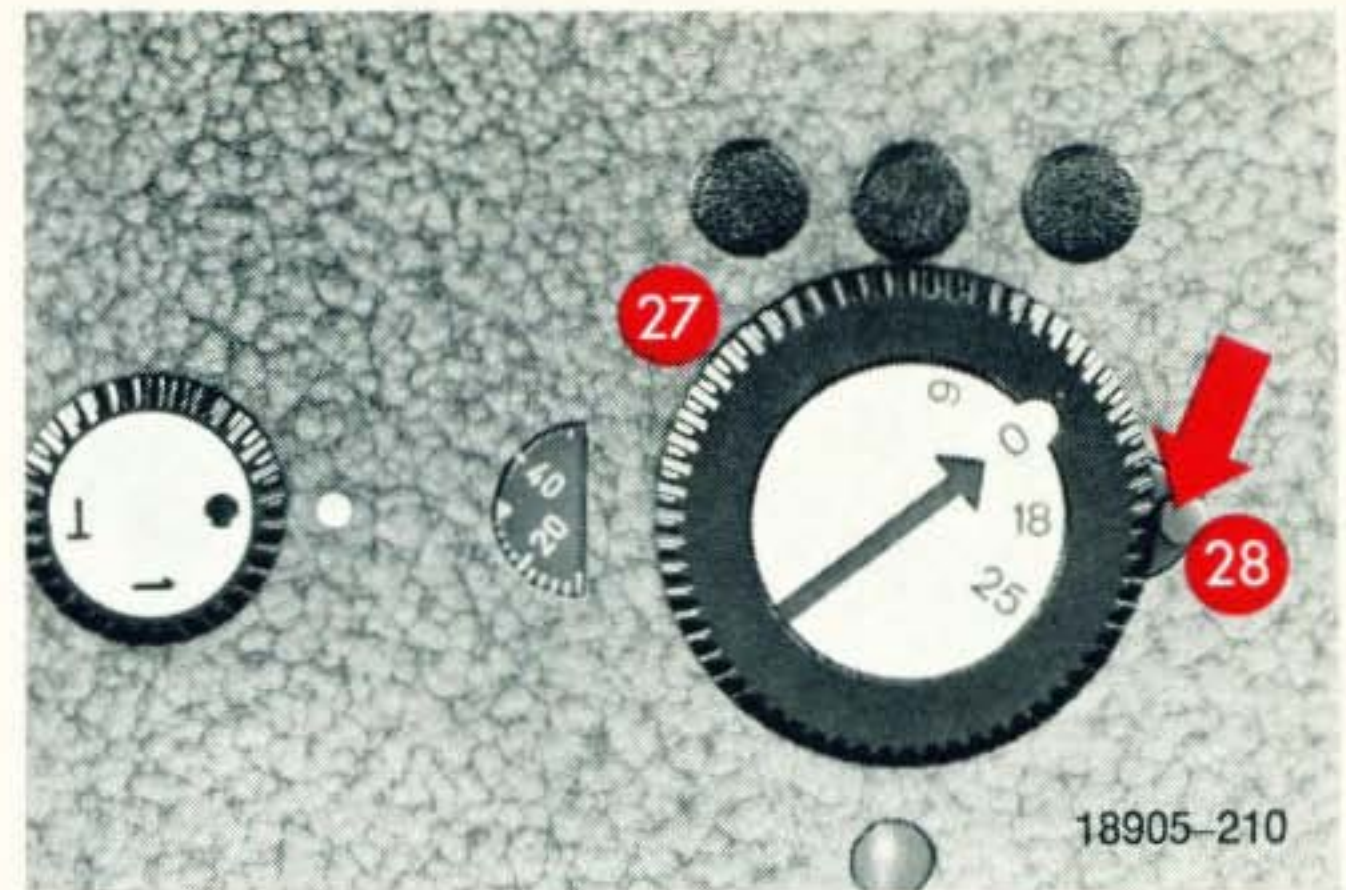
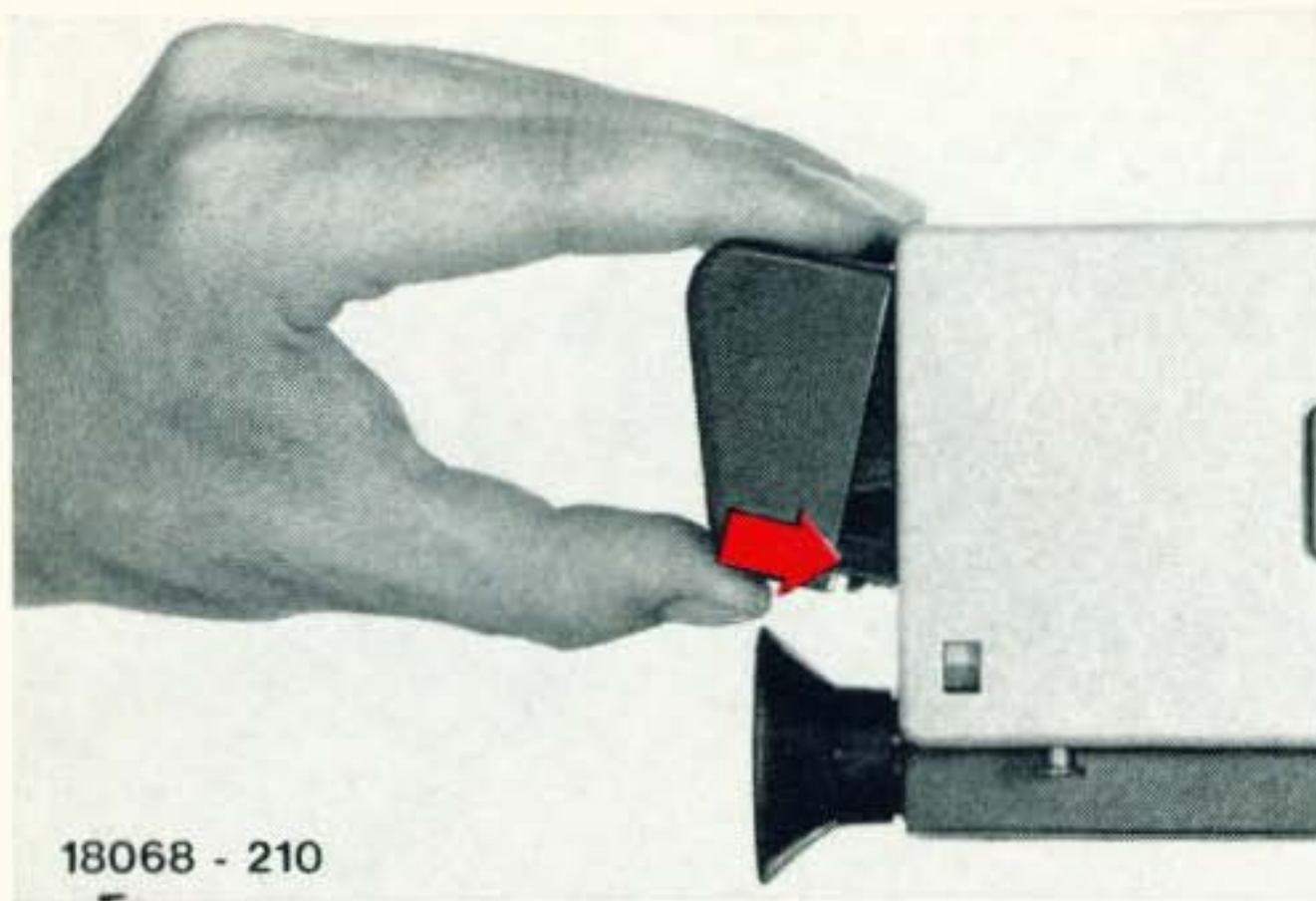


lifting the upper (slightly bent) edge of the metal lid from its catch and separate both



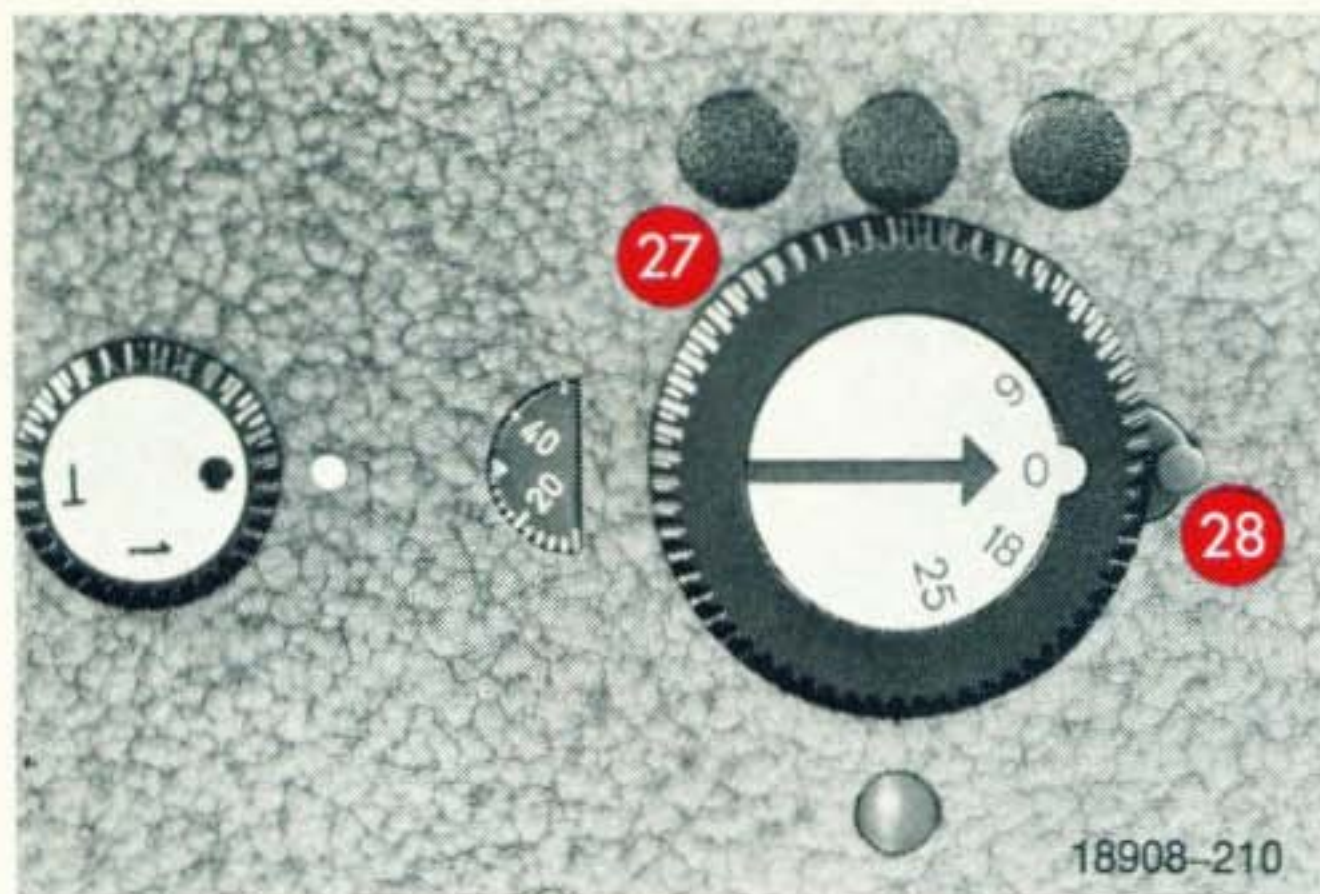
parts. Insert each cell in its retaining clip observing + and — polarity. Place the end of the cell against the spring contact and push it into the clip. The fabric bands are placed beneath the lower cells to facilitate their removal. Close the battery housing.





Insert battery housing (1) into the camera by engaging its upper portion with the spring clip in the camera body. Tilt the housing downward until it is secured. Test the battery by setting frame speed selector (27) to any speed and then depressing locking button (28). The needle of battery test indicator (2) should be in the white sector. If the needle remains in the red sector, the batteries are exhausted and should be replaced.

During freezing weather the battery housing should be removed from the camera and carried in an inside coat pocket. (A spare battery housing is available under catalog number 22,224.)



Frame speed selector

The frame speed selector (27) has the following settings:

- 9 = Nine frames-per-second (accelerated motion 1/20 second exposure)
- 0 = Power is switched off
- 18 = Normal speed for silent movies (1/40 second exposure)
- 25 = Normal speed for sound movies (1/55 second exposure). Also re-

commended for fast-moving objects and when using long focal length lens settings.

To set frame speed selector (27), depress red speed selector locking button (28) and rotate selector to desired speed.

Note:

When camera is not in use, set frame speed selector to "0" to conserve the battery.



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Viewfinder information center

All important functions can be seen and controlled while looking through the viewfinder

1. Pictorial composition: Can be altered by zooming with controls (12) or (17).
2. Focusing: Accurate focus is assured by the diagonally arranged split-image rangefinder.
3. Automatic diaphragm setting: The exposure setting may be changed plus or minus one f/stop by knob (11) or the diaphragm may be arrested by button (20).

If there is insufficient light for correct exposure, a four-bar symbol appears in the lower portion of the viewfinder.

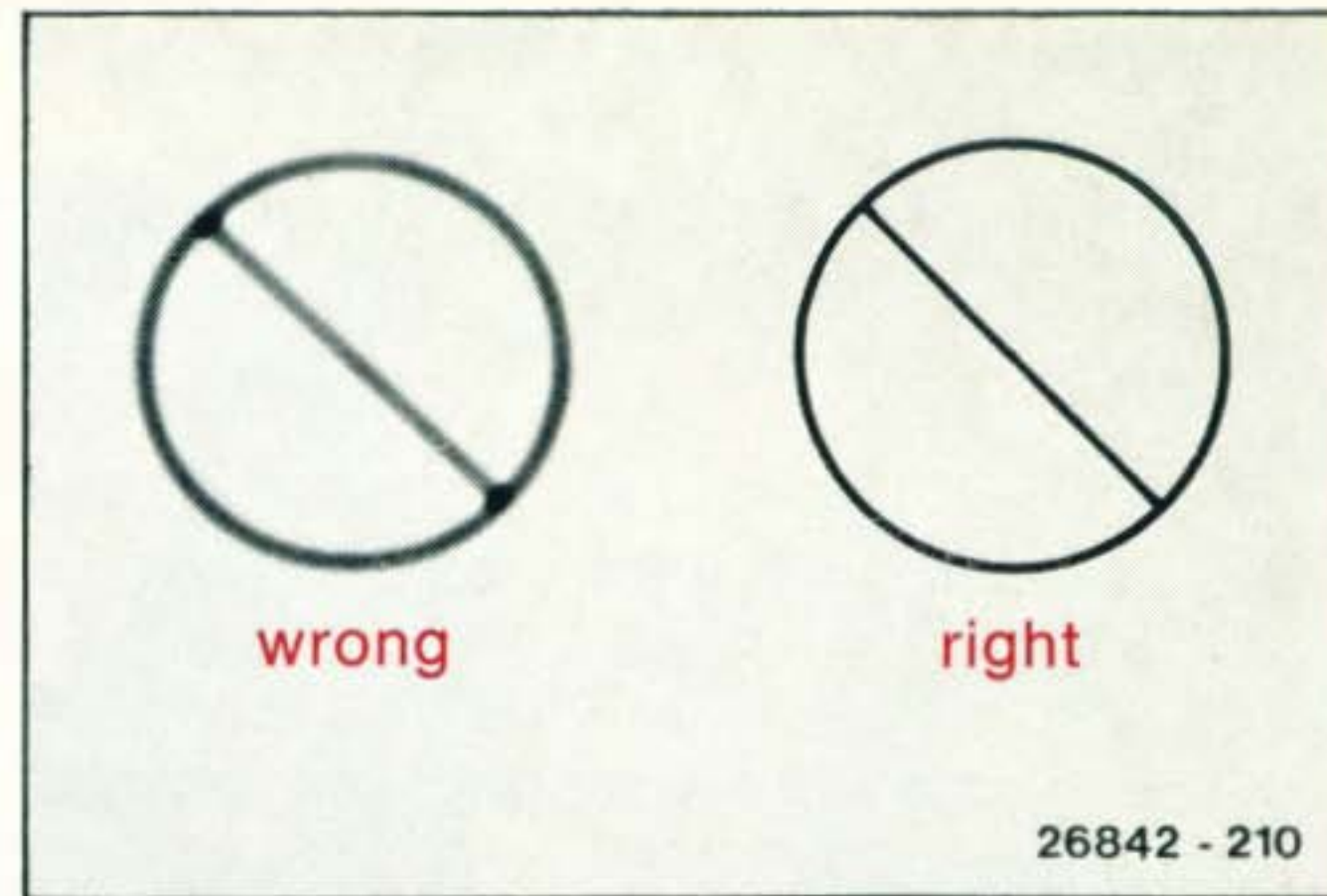
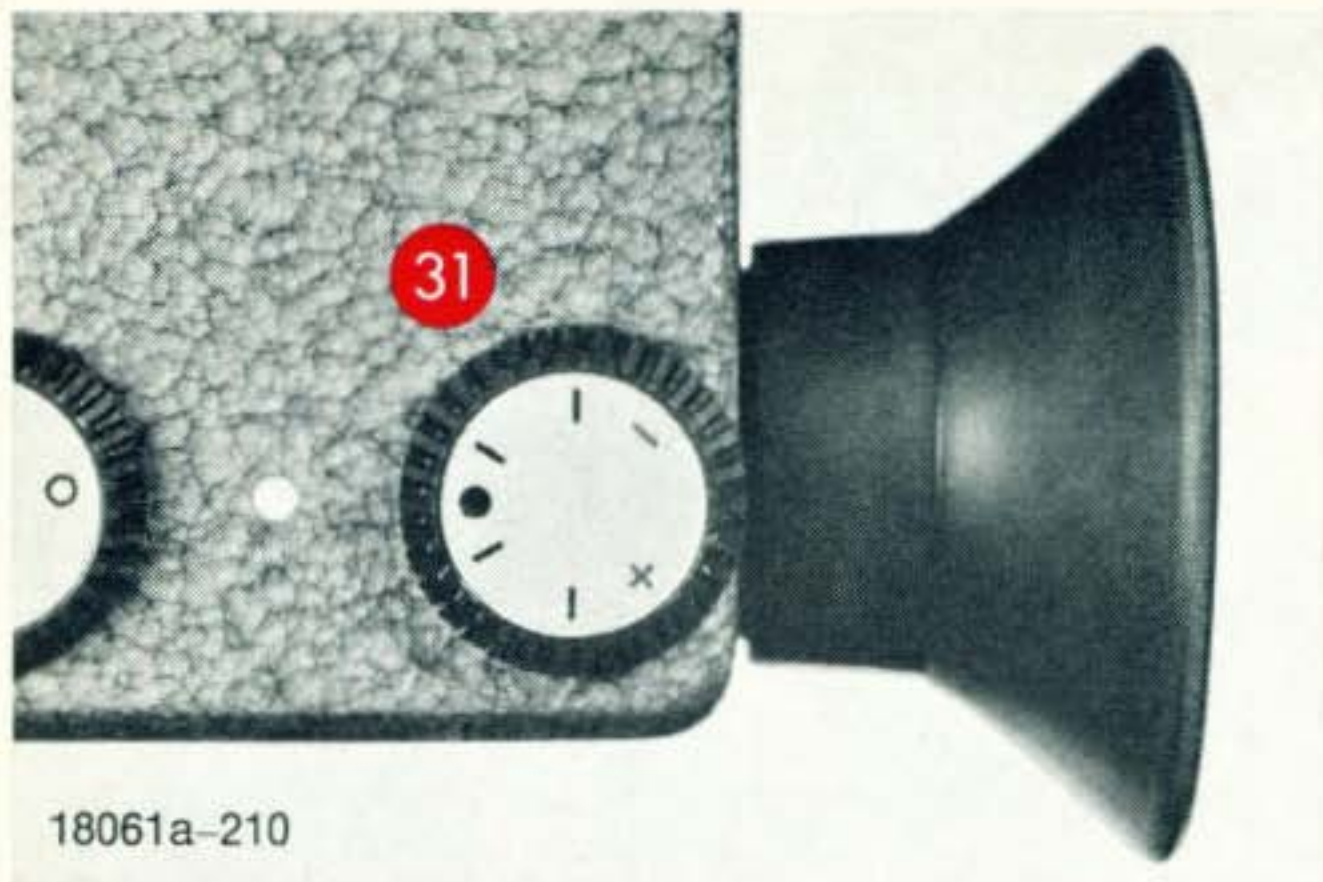
When making fades or lap-dissolves, a long, thick, black bar will appear when the diaphragm is closed.

4. Film reserve: The color-coded indicator in the left side of the viewfinder indicates as follows:

Green	= start of film
Half green, half yellow	= ohne-fourth of film exposed
Yellow	= half of film exposed
Half yellow, half red	= three-fourths of film exposed
Red	= end of unexposed film.

The camera film transport will automatically stop when the end of the film is reached.

5. Zoom: A white triangle in the upper portion of the viewfinder appears when the lens has been zoomed to a focal length of 22mm or longer. This indicates that a tripod or other support should be employed.

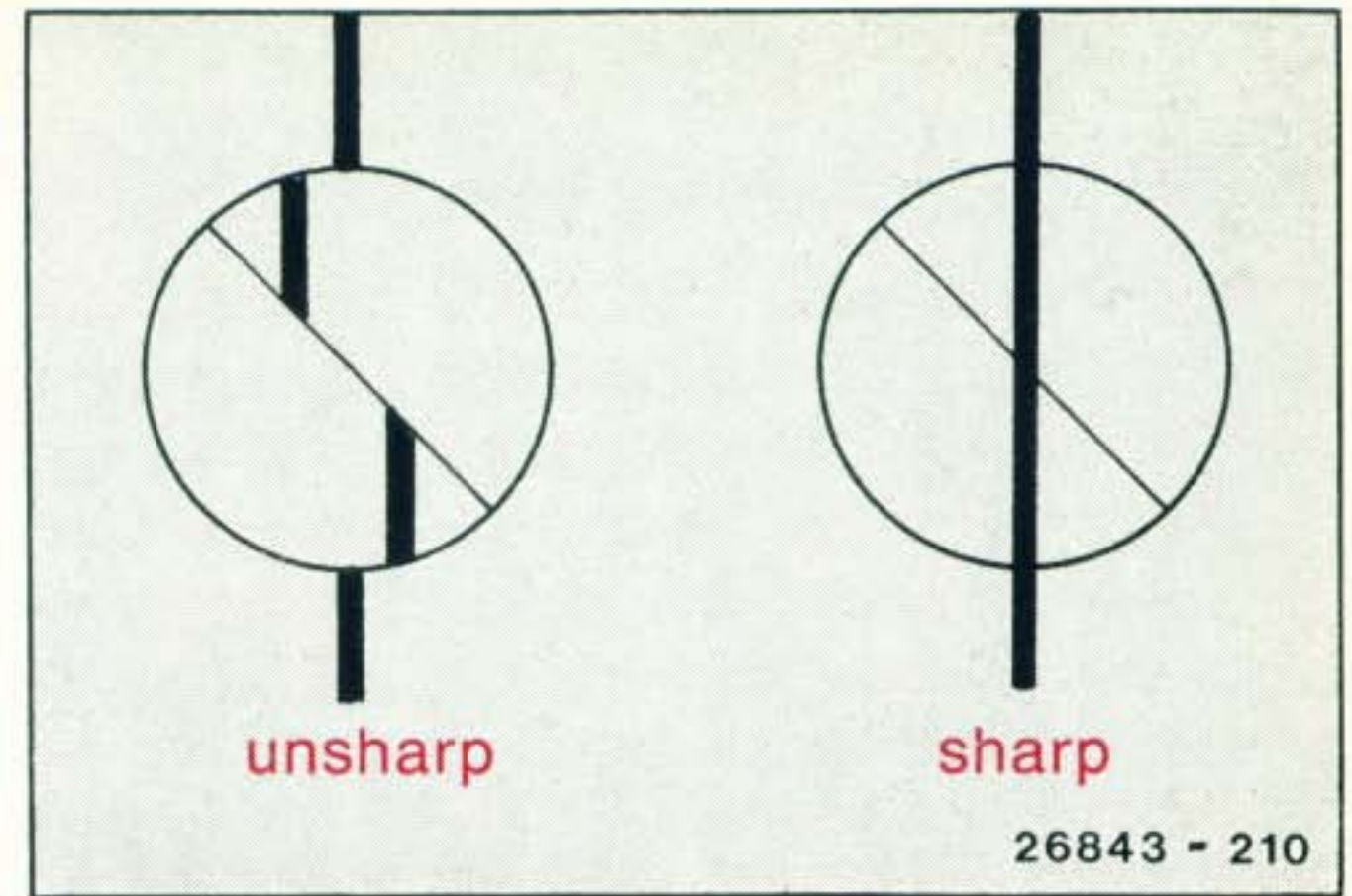


Eyepiece adjustment

Correct adjustment of the eyepiece is essential in order to obtain critical focus. Accurate focusing requires optimum adjustment of the eyepiece for each individual's eyesight.

The eyepiece is focused as follows: Set the lens at 64mm focal length and infinity focus. Select an area of uniform illumination (preferably light gray) and, starting at $+2$, rotate the eyepiece diopter adjust-

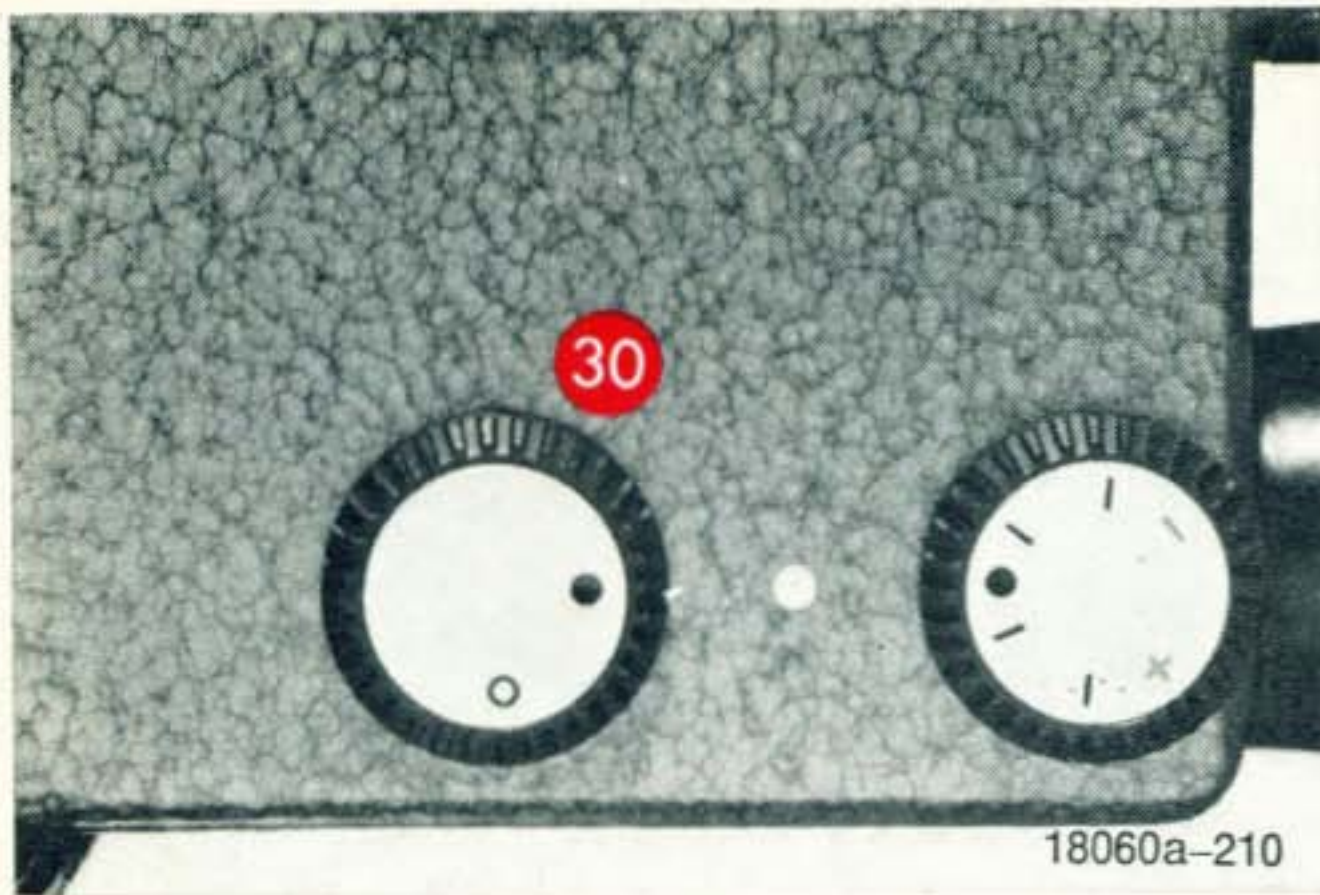
ing knob (31) until the diagonal measuring edge of the split-image rangefinder has attained optimum contrast and sharpness.



Focusing

Where possible, set the lens to its maximum focal length of 64mm. Rotate focusing ring (15) until the split images are aligned and maximum sharpness achieved.

If preferred, zoom control lever (12) may be mounted on focusing ring (15) to facilitate rapid focusing.

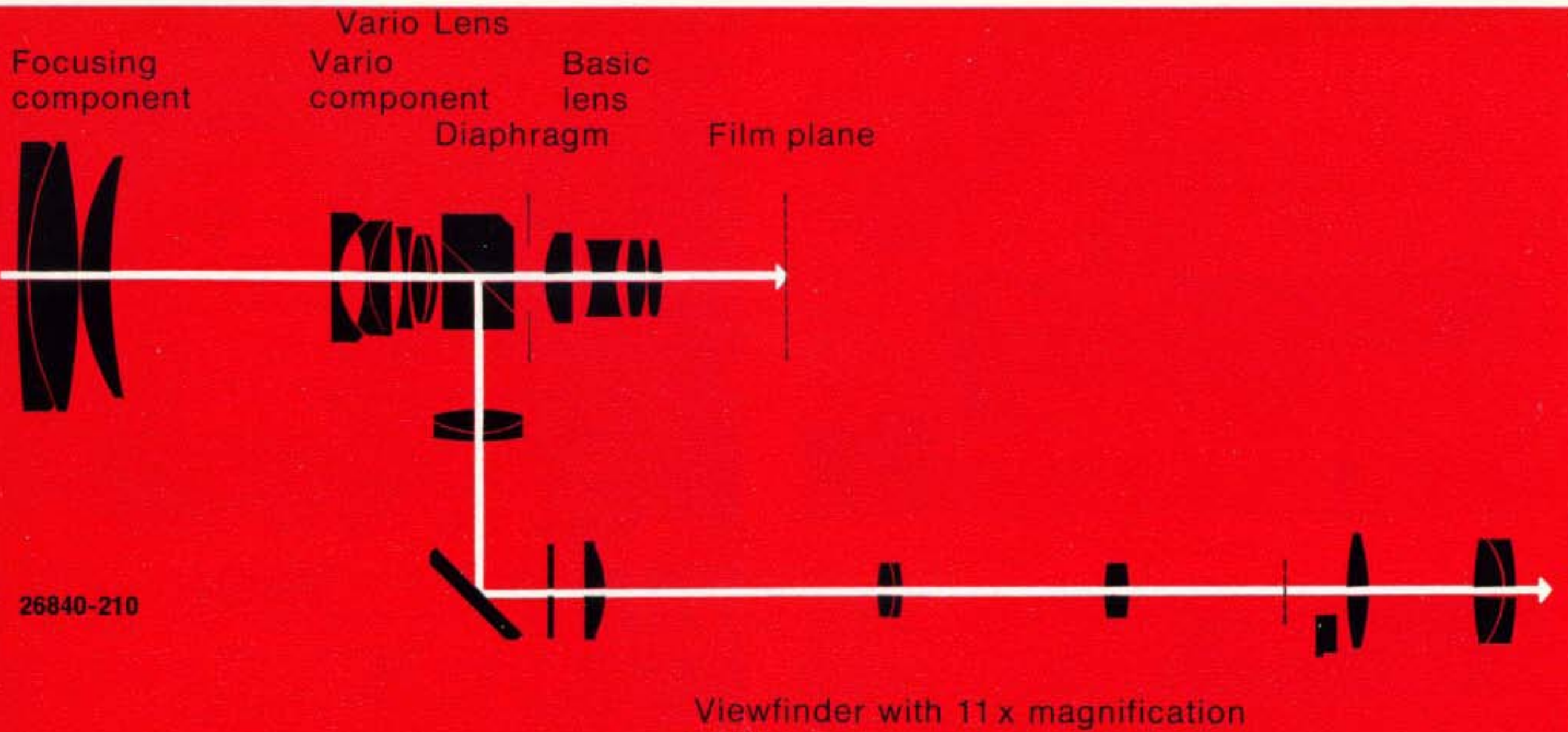


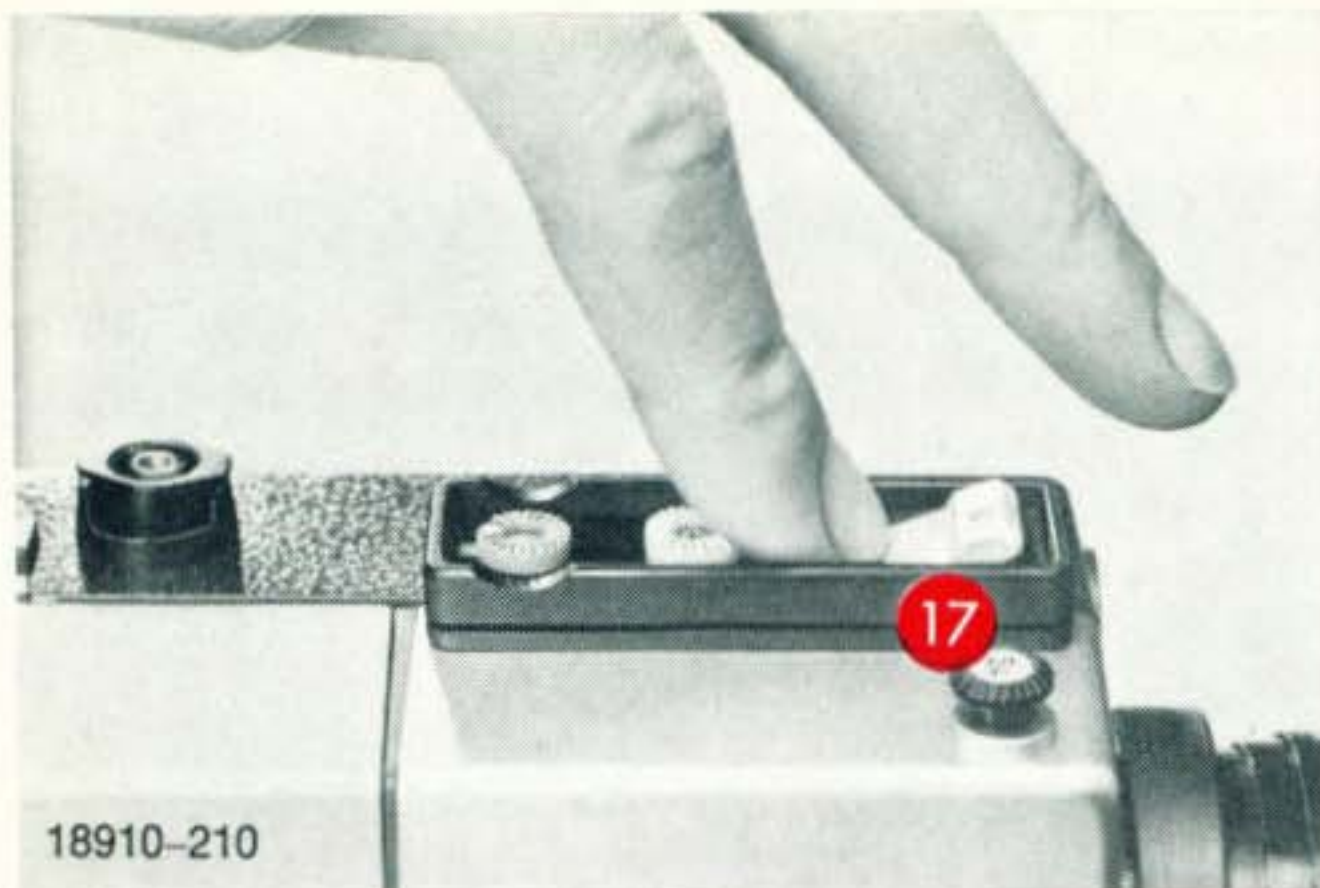
Viewfinder black-out control

To prevent stray light from entering the viewfinder when the camera is on a tripod, rotate knob (30) to align its black dot with the white index on the camera.

Optical system of LEICINA SUPER RT-1

The fourteen-element LEICINA VARIO lens (13) is permanently attached to the camera. Its' zoom ratio is 8 to 1 (8mm to 64mm) and its' aperture range is from f/1.9 to f/22. Closest focusing distance is 90cm (36 inches). A beam-splitting prism, built into the lens, diverts a portion of the light to the viewfinder. The viewfinder field is the same as covered by the lens.



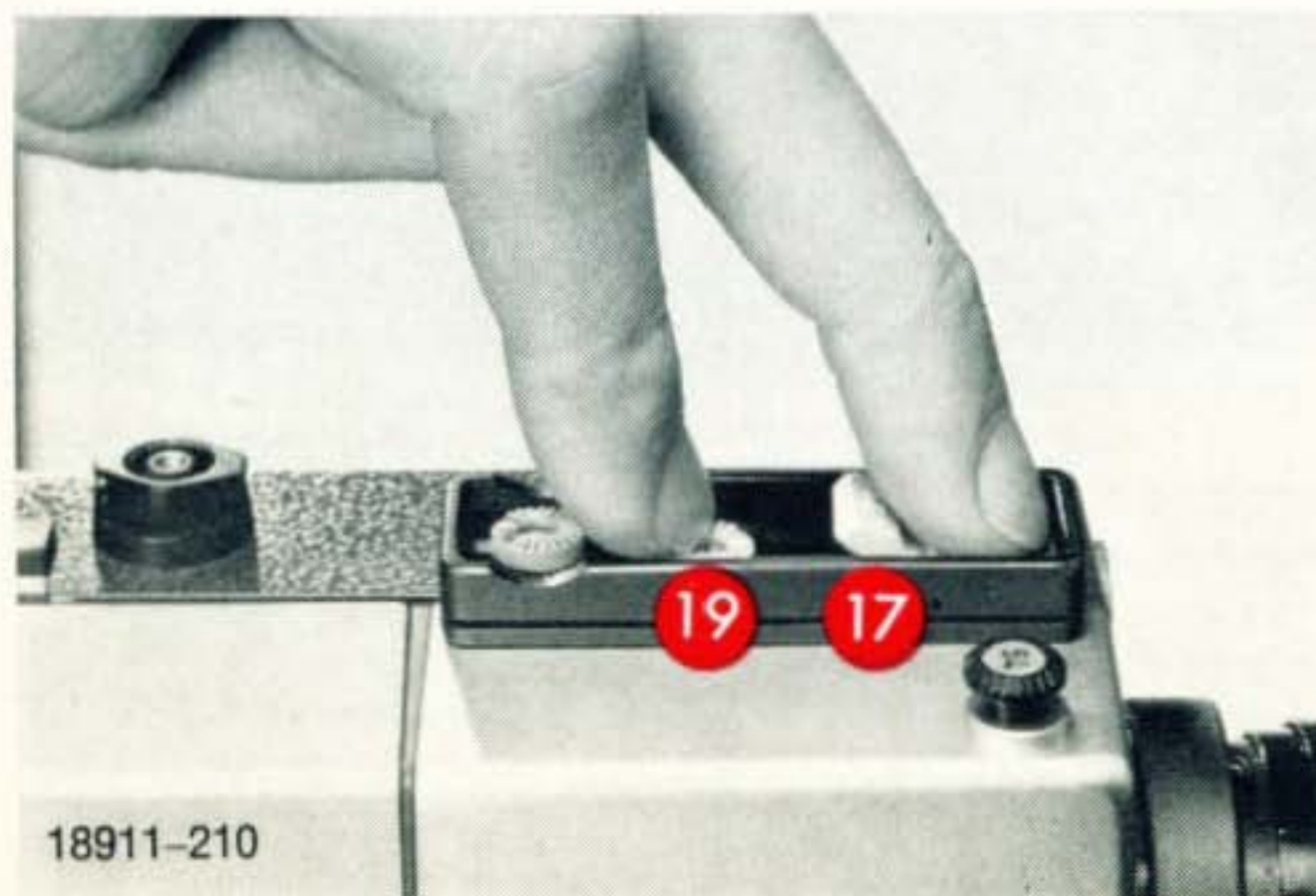


Power zooming

The power zoom is actuated by depressing rocker switch (17). Depressing the forward portion of the rocker switch zooms the lens to its shortest focal length. Depressing the rear portion of the switch zooms the lens to its longest focal length. Two mechanical zoom speeds are available; six seconds (slow) for the complete zoom range, and three seconds (fast) by depressing both switch (17) and button (19). Button (19) may be locked in the down position by depressing and rotating it clockwise. This assures fast zooming whenever rocker switch (17) is operated.

Note: When projecting the exposed film at 18 frames-per-second, zoom durations on the screen will be:

Filming Speed	Projected Time	
	Fast	Slow
9 fps	3	1 ¹ / ₂ seconds
18 fps	6	3 seconds
25 fps	8	4 seconds
54 fps	18	9 seconds



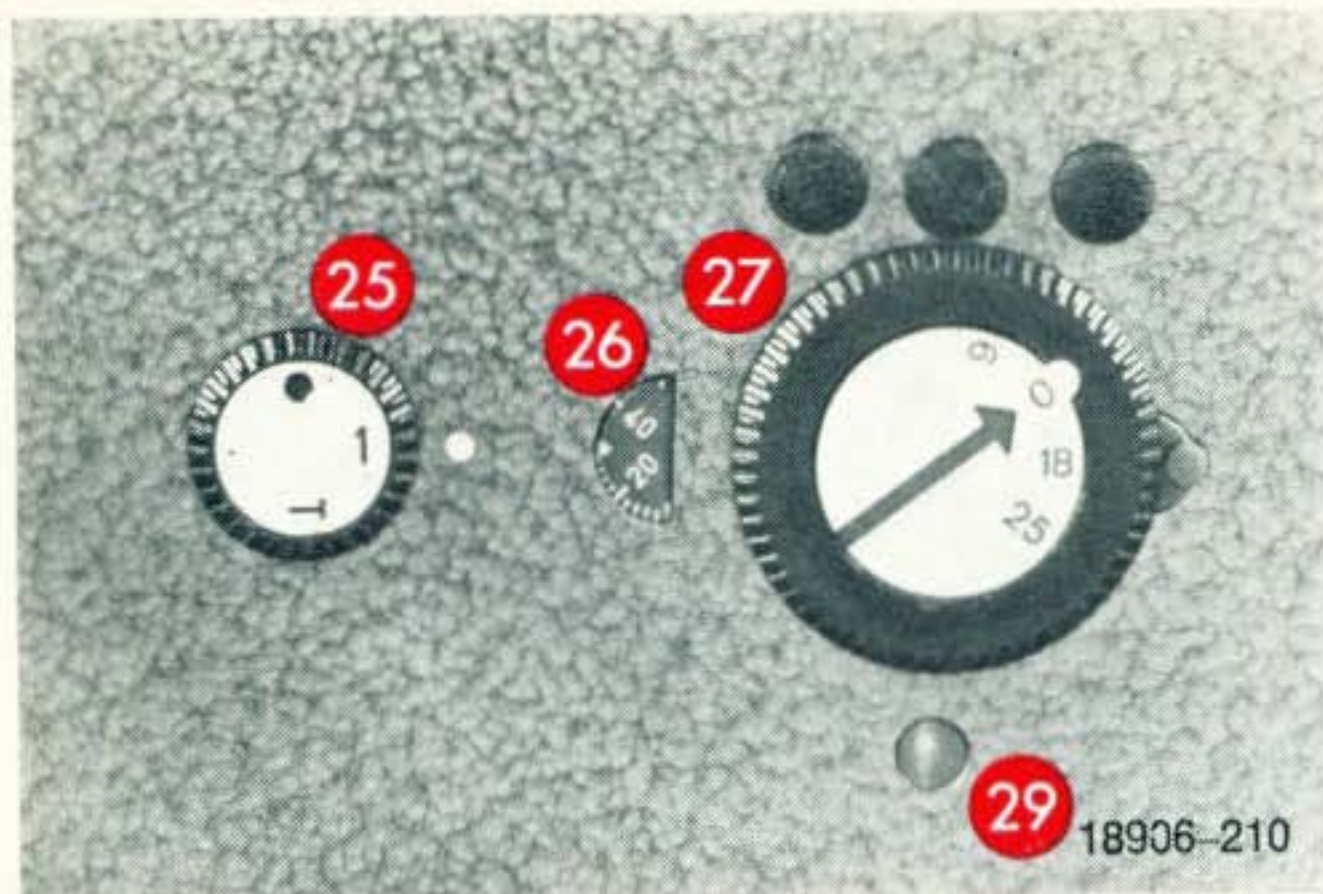


Slow motion filming

While the camera is filming at any speed set on the frame speed selector (27), it may be instantaneously switched to 54 frames-per-second (1/120th second exposure) by depressing button (18) in addition to release (6) or (21). The effect when filming at the faster speed, and projecting at normal speed, slows the motion on the screen. Button (18) may be locked in its down position by depressing and

rotating it 90° in either direction. The camera will then film at 54 frames-per-second when actuating either release.

Note: The frame speed selector (27) must be set for either 9, 18 or 25 frames-per-second.



Single-frame instantaneous exposures

To make single frame exposures for time lapse, animation and special effects, rotate selector knob (25) to align number 1 with the white index on the camera. Set frame speed selector (27) to 18 frames-per-second. A single frame will be exposed each time release (6) or (21) is depressed.

Note: Keeping release (6) depressed, the rate at which single-frame exposures may be taken is doubled. One exposure is

made when depressing release (21) and another exposure is made when it is returned to its upper position.

Single-frame time exposures

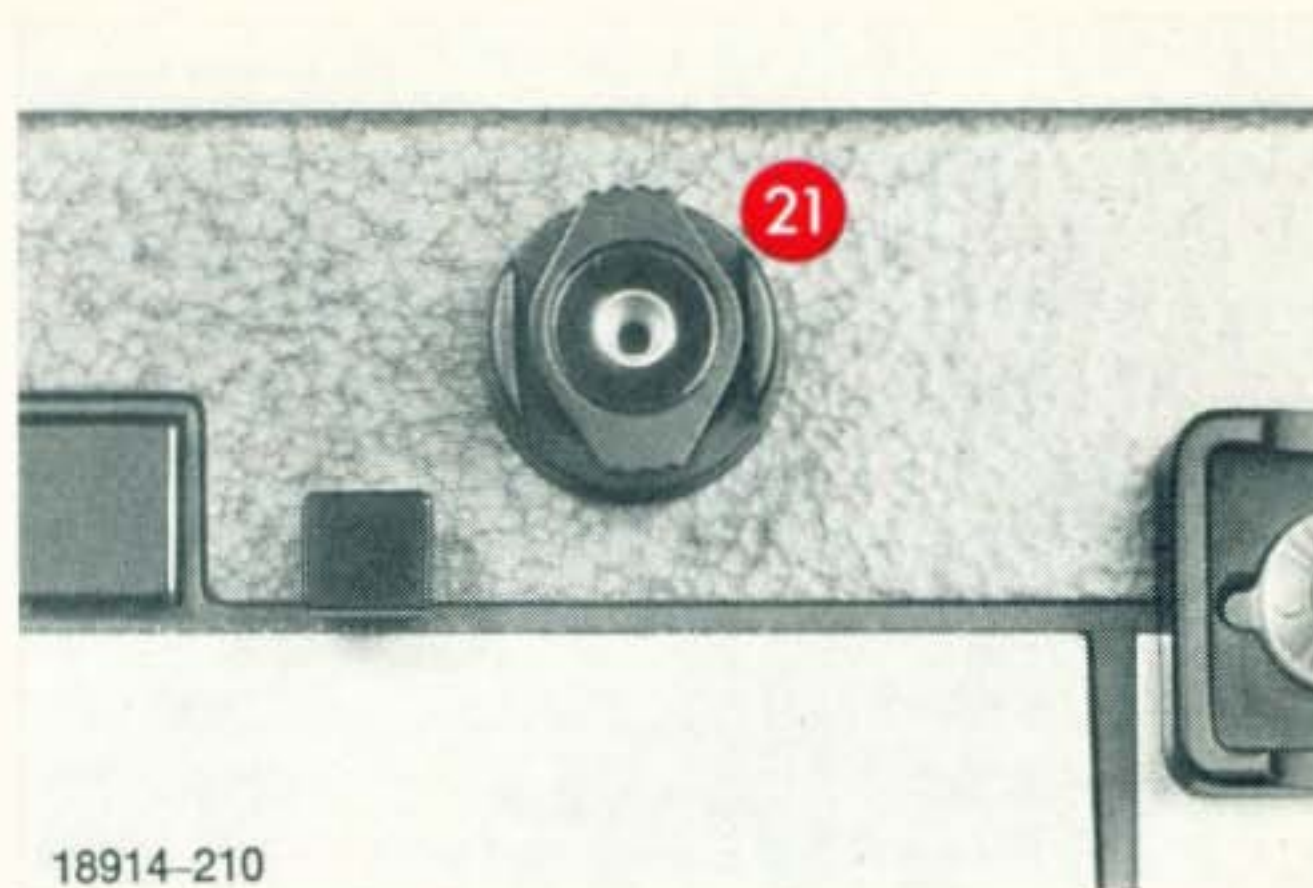
Set the letter "T" on selector knob (25) to align with the white index on the camera body. Arrest the diaphragm at the desired aperture by depressing button (20) and turn clockwise to lock it. When depressing release (6) or (21) the first time, the camera shutter will open. When depressing either release the second time, the shutter will close. Indicating light (29) will be illuminated as long as the shutter is open, and will extinguish when the shutter is closed.

Time exposures may be precisely controlled by using the LEICINA SUPER Control Unit.

Frame counter

Frame counter (26) rotates while film is being transported. It is numbered from 1 to 80 to facilitate single-frame counting. One rotation of the dial (80 frames) is equivalent to 4.4 seconds when projecting at 18 fps.

When reversing the direction of film transport (for lap-dissolve or double exposure), the frame counter rotates in the opposite direction.



Filming at 9 frames-per-second

Set frame speed selector (27) for nine frames-per-second and depress release (6) or (21). This slower rate of filming speeds up the projected action. Slow moving objects move faster giving an "oldtime movie" effect. Also, the longer exposure time (1/20th second) permits filming under light conditions not possible at faster running speeds.

Continuous filming

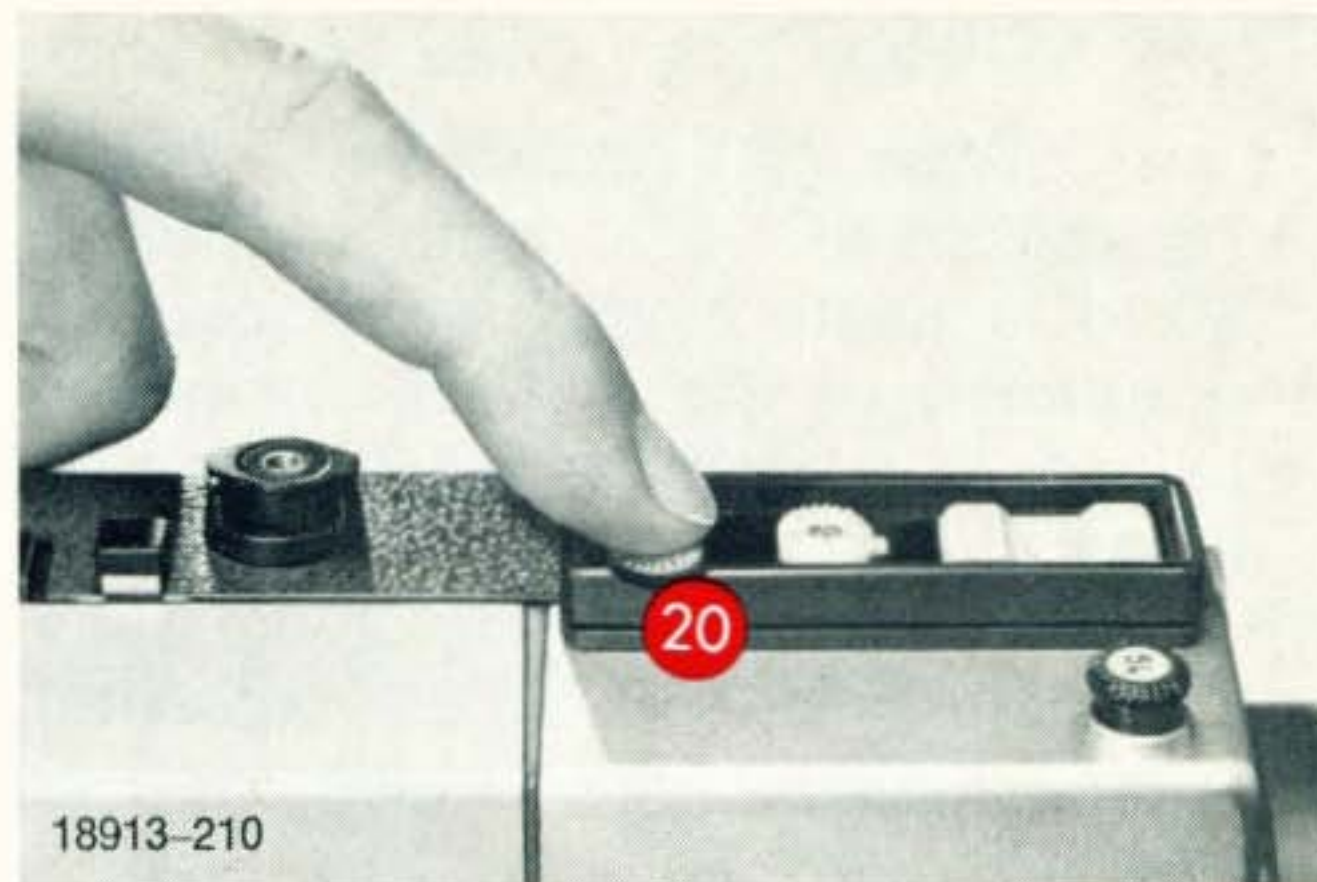
Release (21) may be locked in the depressed position by rotating clockwise. The release may be held in its upper position, preventing accidental exposure, by aligning it parallel with the camera body. Release (21) is also used when the camera is mounted on a tripod.

Automatic exposure control

The lens diaphragm automatically adjusts for correct exposure when frame speed selector (27) is in any position other than "0". As long as aperture openings as indicated in the viewfinder are between $f/2$ and $f/22$, films will be correctly exposed. The diaphragm closes to a smaller opening as the level of illumination increases, and opens to a larger opening as the illumination becomes less.

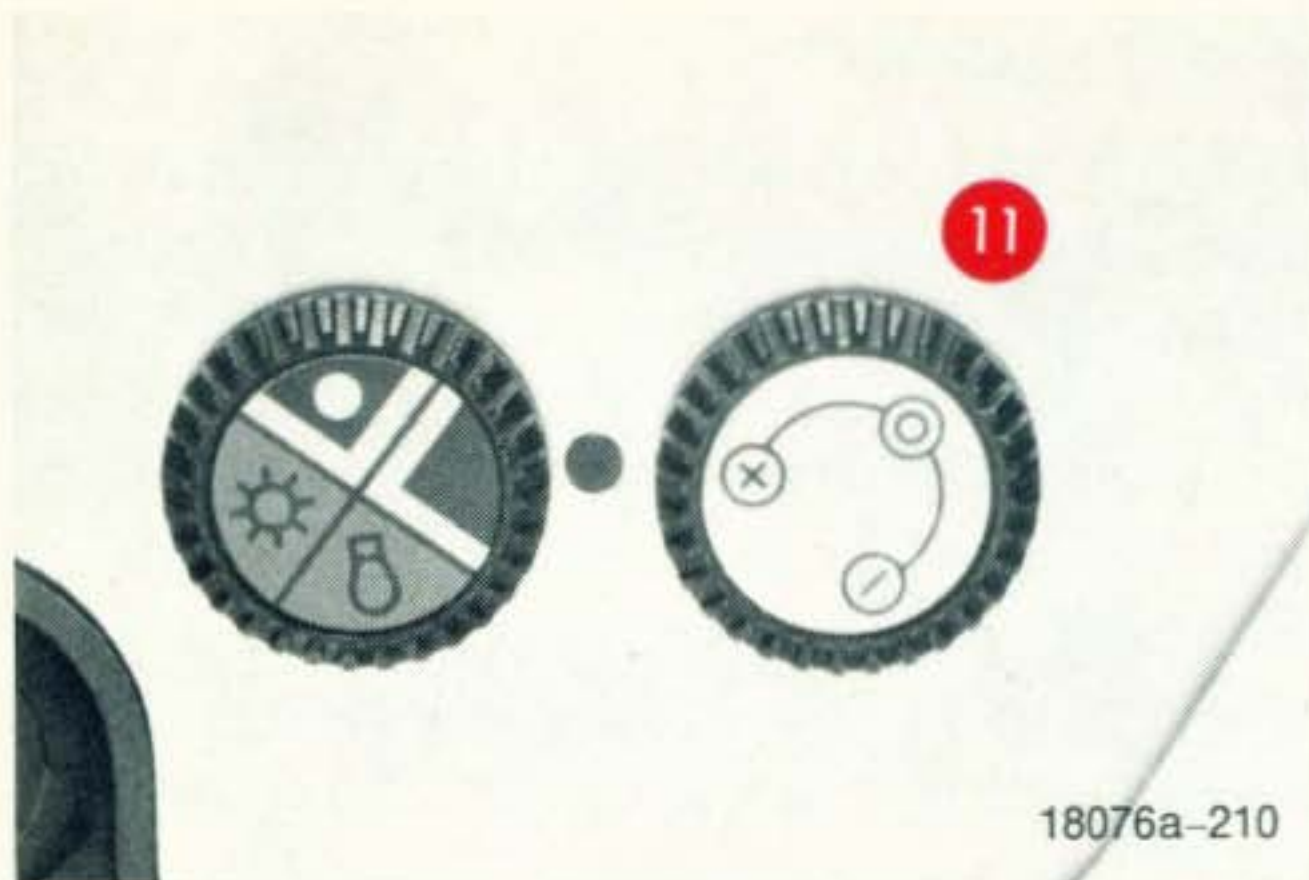
Viewfinder symbol of four bars indicates insufficient light.

Viewfinder symbol of one bar indicates a closed diaphragm.



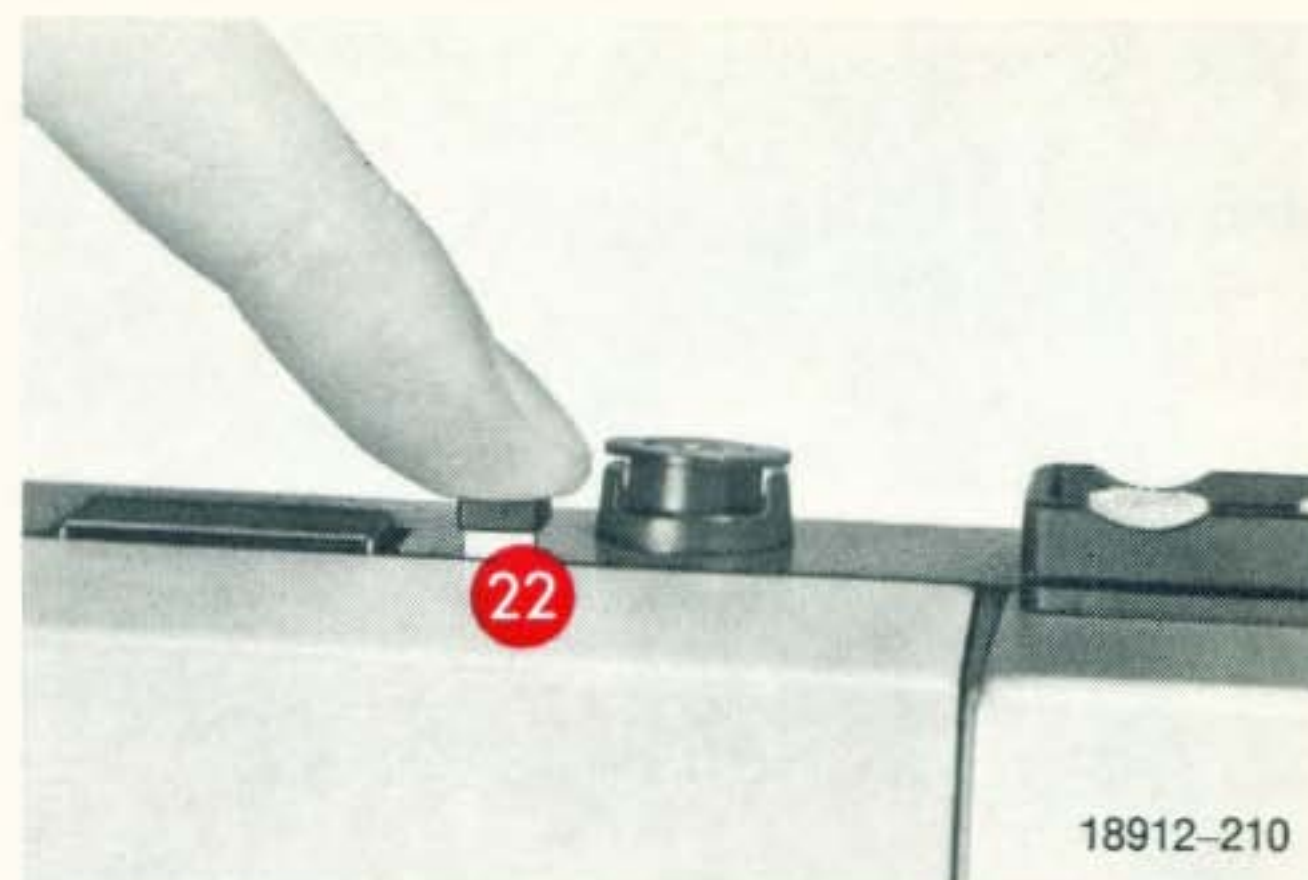
Filming at predetermined aperture

The diaphragm may be arrested at a predetermined setting by depressing diaphragm arresting button (20). It may be locked in the down position by rotating clockwise.



Overriding automatic exposure control

By rotating knob (11) exposure can be manually adjusted by plus or minus one stop. The knob also engages at half-stops.



Lap-dissolves

At the end of the scene where a lap-dissolve is desired, depress button (22) while still depressing release (6) or (21). Hold both buttons in their depressed position until the camera stops running, then simultaneously release both buttons. Before starting the next scene, depress button (22) until the diaphragm is fully closed as indicated by the long bar symbol in the viewfinder. Next depress re-

lease (6) or (21) and immediately remove your finger from button (22). Continue filming for the desired length of the scene.

Fades

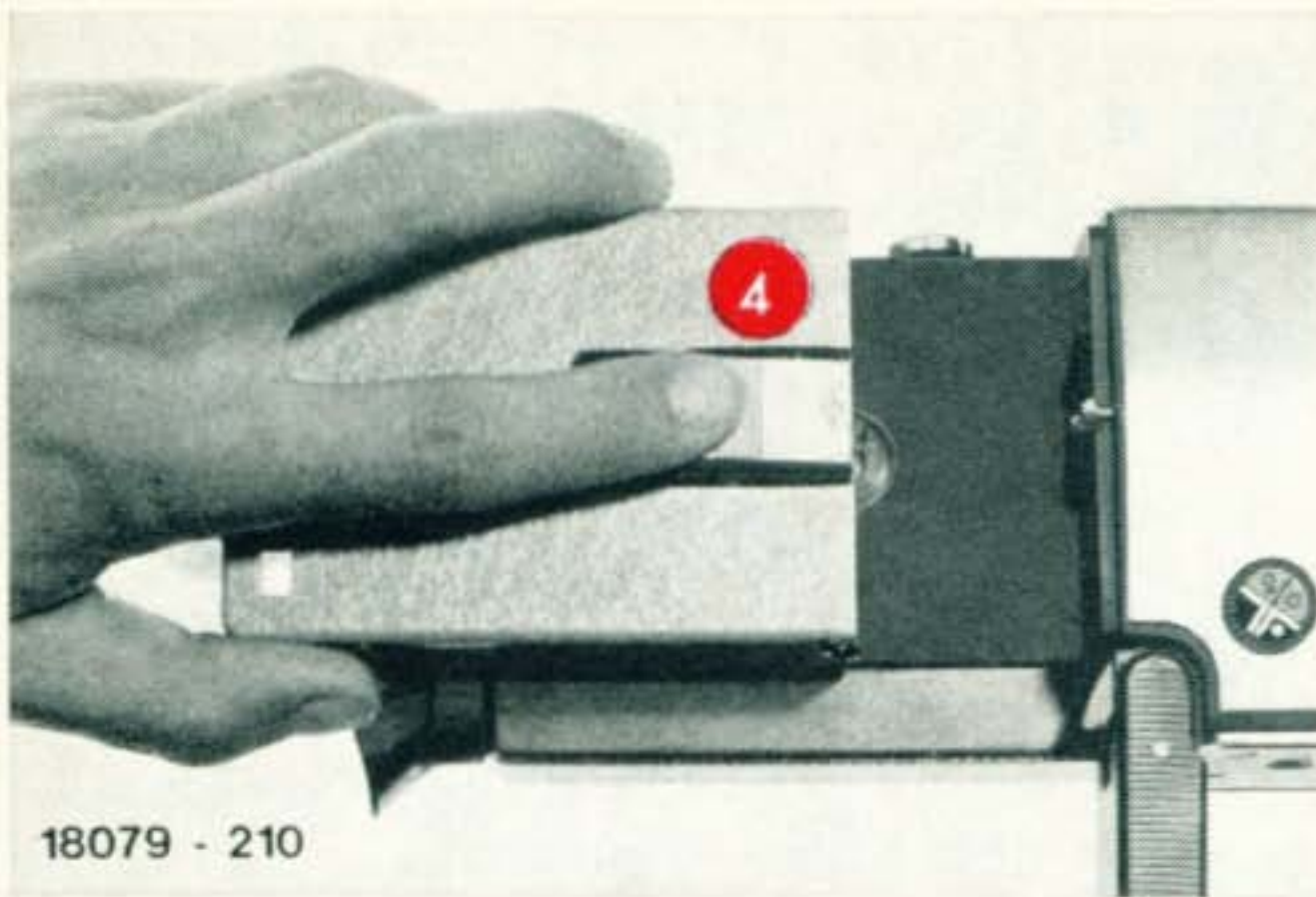
To fade out a scene, depress button (22) while still filming with release (6) or (21). Observe the closing of the diaphragm in the viewfinder and immediately remove your finger from release (6) or (21) the instant the long black bar appears in the right edge of the viewfinder.

To fade in a scene, depress button (22) until the diaphragm is completely closed. Then release button (22) and immediately depress release (6) or (21). Continue filming for the desired length of the scene.

Double exposure

Without the camera running, frame the scene to be photographed and arrest the diaphragm by locking diaphragm arresting button (20) in the down position. Simultaneously depress release (6) or (21) and button (22) for four seconds. Unlock button (20). Next depress button (22) until diaphragm is fully closed. While holding button (22) in the depressed position, run the camera with release (6) or (21) until it automatically stops. Film the second exposure in the normal manner.

Note: Double exposures should be made at 18 frames-per-second. It may be desirable to adjust exposure by setting exposure correction knob (11) to the minus position.



Loading

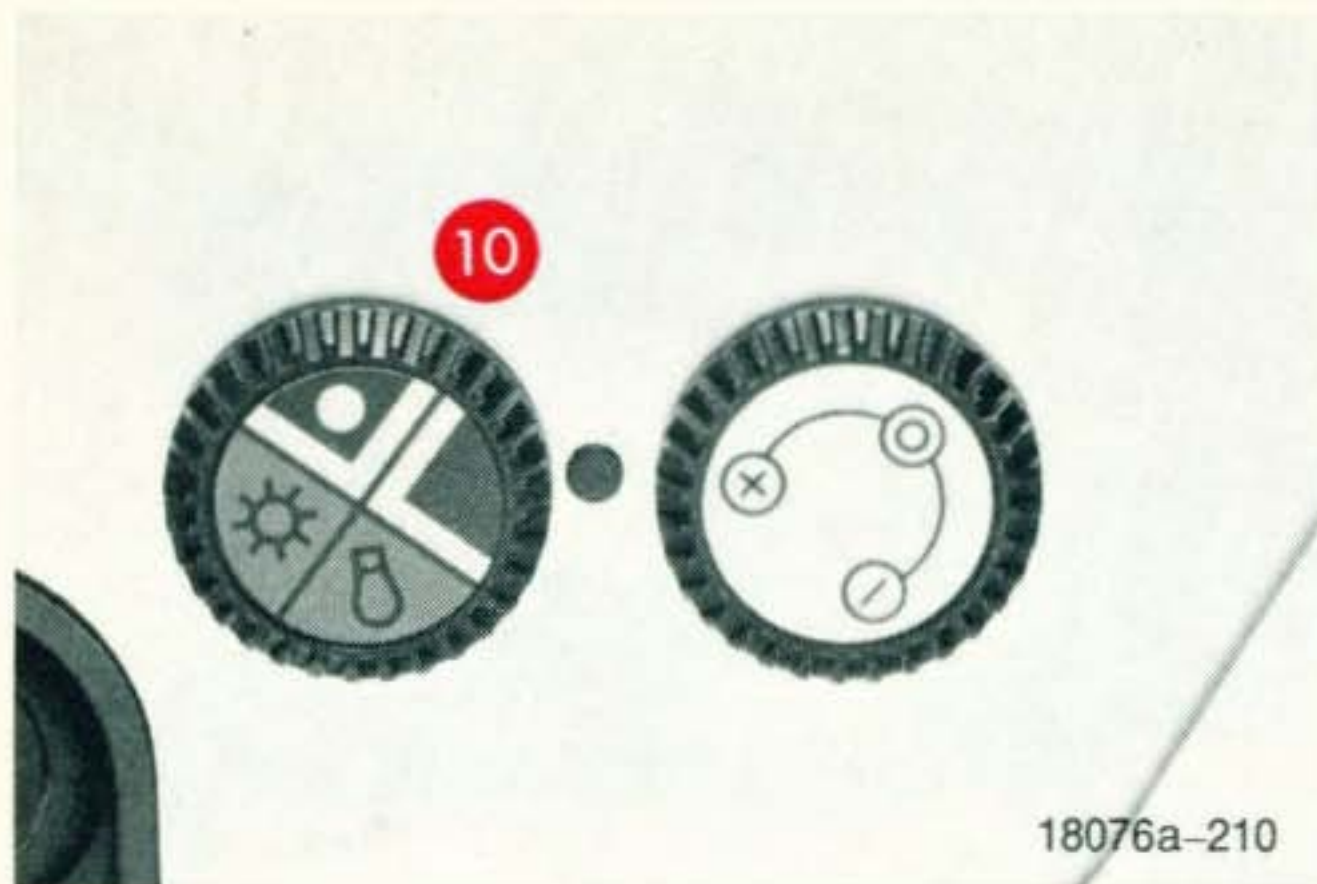
Depress cassette chamber lock (4) and pull the lid of the cassette chamber back to its stop. Insert the Super-8 cassette with its lettering face up.

During insertion, the guide notch of the cassette (on the right side in front of the letters) must engage under the guide pin in the chamber of the camera.

Insertion of the cassette automatically establishes the correct film speed setting



(within the range 15–27 DIN, 25–420 ASA) for the automatic exposure control of the camera. The film-type indicator window (3) indicates the type of film in the camera.



Daylight/artificial-light filter

The built-in conversion filter is switched into the light path of the lens by rotating knob (10). The filter factor is automatically compensated. The knob has four click-stops:



● Exposure of artificial-light color film in daylight (**with** conversion filter).



● Exposure of artificial-light color film in artificial light (**without** filter).



● Exposure of black-and-white film in daylight or artificial light (without filter). This position must also be used when employing daylight color film in daylight.



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● Exposure of black-and-white film with the conversion filter. (Produces the effect of a light-orange filter).

Using additional filters

Series 7 filters may be used by placing them in the divisible lens hood (14).

Accessories

A 1:12 reproduction ratio, covering a 47 x 63mm field, is obtained with a focal-length setting of 64mm and the camera focused at its closest distance (90cm).

Close-up Lens

A supplementary close-up lens permits filming at even closer distances (catalog No. 22,003).

The supplementary close-up lens is threaded into the front of the zoom lens, after removing the divisible lens hood (14). The front portion of the lens hood is then threaded into the supplementary lens.



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Note: The location of the film plane is indicated by the film plane index (5) located on the cassette chamber lock (4).

Cable Release: A 20 inch cable release, with lock (catalog No. 14,076), screws into release (21).

Focal length set	Distance Scale in m	Camera distance object-film-plane in cm	Object field size in mm
8	0.9	40	122 x 162
64	0.9	40	17 x 22



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Carrying Case

To protect the camera, a soft, leather eveready case (catalog No. 22,444) is available. The case holds the camera and control unit, or camera and three film cassettes.

Right-angle Finder

To facilitate framing and focusing, when using the camera on a copying stand, a rotating right-angle finder and adapter is available.



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The rubber cup is removed from the viewfinder eyepiece (32) and the adapter (cat. No. 22,221) is attached to the eyepiece. The right-angle finder (cat. No. 14,186) is then fitted to the adapter.

Universal Handgrip

To steady the hand-held camera when filming with longer focal lengths, a universal handgrip (catalog No. 14,188) and cable release (catalog No. 16,494) are available. This combination may also be used with the LEICAFLEX® SL MOT.

Control Unit

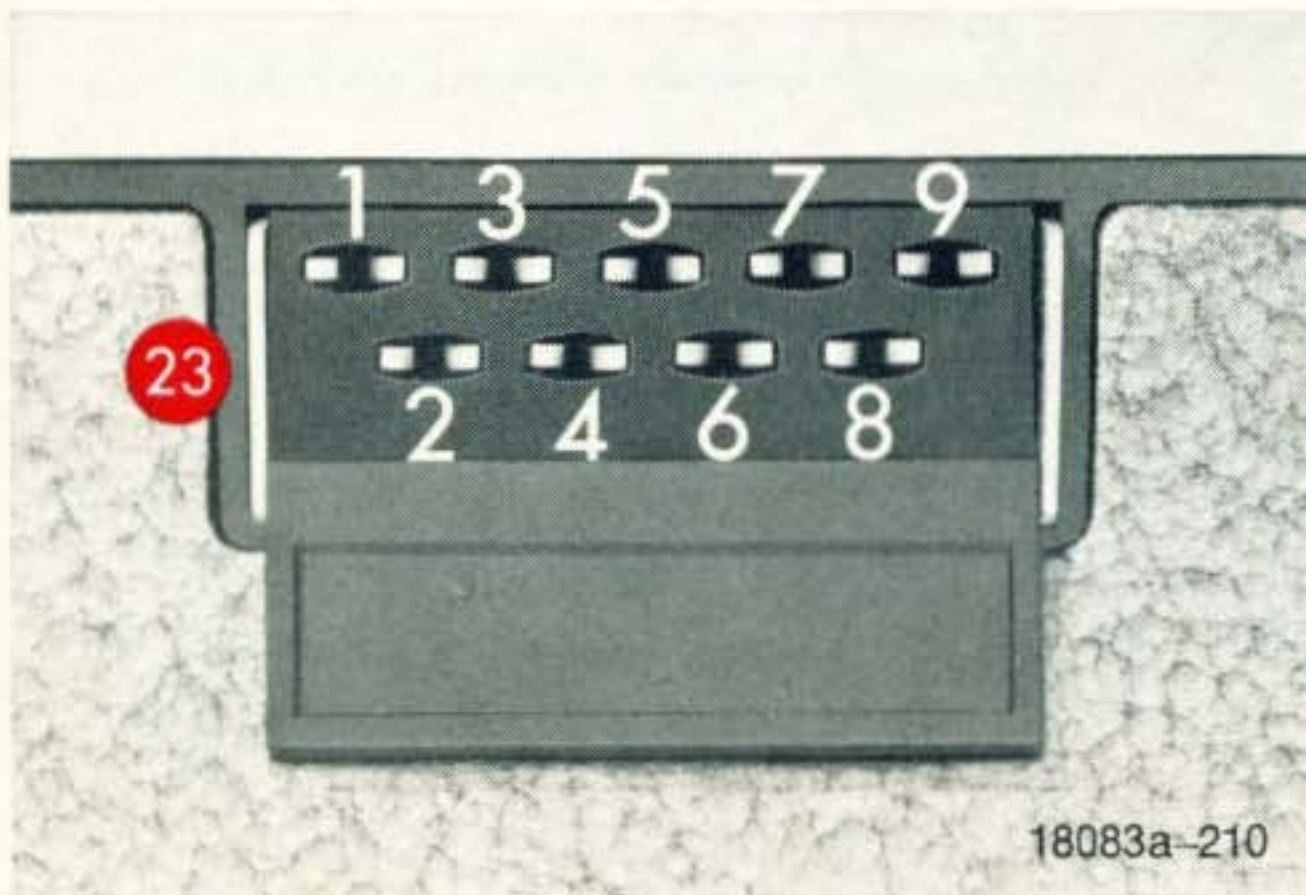
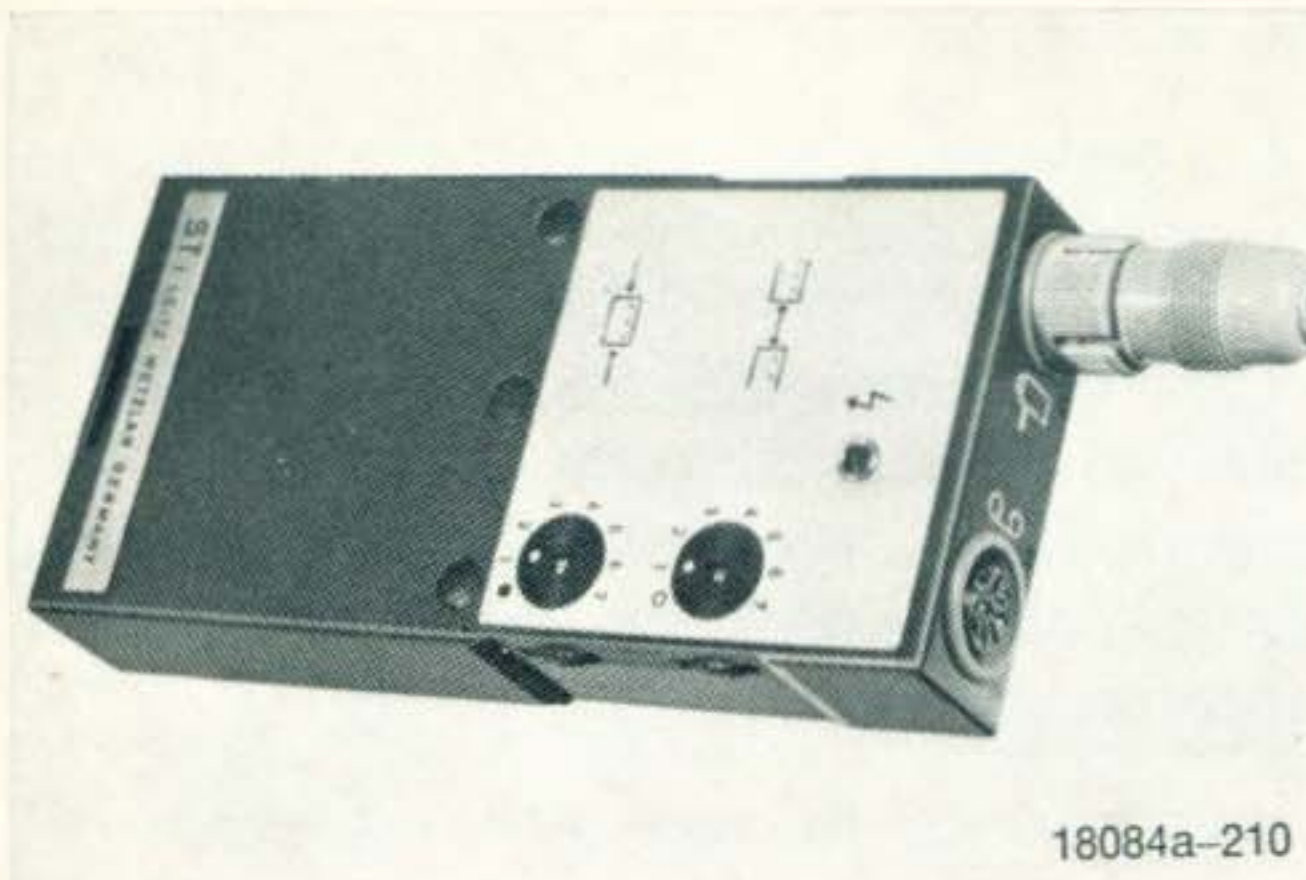
A control unit (catalog No. 22,226) may be connected to the LEICINA SUPER RT-1 with a 9-pin connecting cable (catalog No. 22,225).

The 9-pin receptacle (23) on the camera has the following arrangement:

- Pins 6, 7 & 8 = External power supply
- Pins 1 & 8 = Remote release
- Pins 2 & 8 = Flash synchronization
- Pins 3 & 8 = Impulse for tape recorder sound synchronization
- Pins 4 & 8 = Tape recorder start/stop control
- Pins 9 & 8 = Remote control of diaphragm when diaphragm arresting button (20) is in locked position.

The control unit when used with the LEICINA SUPER RT-1 provides the following:

1. **Time lapse:** The following time combinations are possible; 3 frames-per-se-



cond up to 1 frame every six minutes. In addition, scene lengths can be adjusted from 0.2 to 10 secs.

2. **Single-frame electronic flash synchronization:** An electronic flash unit can be connected by a standard "P-C" connecting cord. The pre-selected aperture is set by locking diaphragm arresting button (20).
3. **Lip-synchronized sound:** With suitable accessories connected to the control unit, the LEICINA SUPER RT-1 can be used for lip synchronization by employing a stereo tape recorder.
4. **Remote control:** The control unit serves as a complete remote control center, and may also be used as an external power supply for the camera.

A detailed instruction book is supplied with the control unit.

Additional information regarding special applications of the LEICINA SUPER RT-1 will be found in the publication number 210-27.

Maintenance

The film track of the camera should be cleaned occasionally with a soft brush. The LEICINA VARIO lens and the viewfinder eyelens should be cleaned with a camel's hairbrush and lens tissue. Impregnated tissues, intended for cleaning eyeglasses, should not be used on photographic lenses.

International LEITZ Warranty

Our products are manufactured to stringent quality standards and are inspected by highly trained specialists at the many stages of manufacture. They are covered by the international LEITZ warranty for flawless quality and expert processing of the raw materials used, for accurate assembly of all parts, and for the functional reliability of the design.

Warranty is extended over two years for all optical and mechanical components, and over one year for all electrical components beginning with the date of purchase from your dealer.

A warranty card showing the serial no. of the LEICINA SUPER RT-1 is enclosed with every camera.

Service

Should your LEICINA SUPER RT-1 ever be in need of repair, please contact either your photo-dealer, the LEITZ agents in your country, or the nearest LEITZ-authorized service center. A list containing the names of all LEITZ agencies as well as the authorized service centers is enclosed with every LEICINA SUPER RT-1.

Checklist

Before filming, check the following:

1. Make certain knob (10) is set for the correct type of film and illumination.
2. Make certain that exposure correction knob (11) is correctly set.
3. Make certain the eyepiece diopter adjusting knob (31) is correctly set for your individual eyesight.
4. Make certain batteries are not exhausted by testing with battery test button (28).

Fixed-focus filming

To capture the unexpected when time for focusing is not available, keep the LEICINA VARIO lens set at infinity focus and at a focal length of 8 or 10mm. Keep the camera speed at 18 fps.



Symbol of optical precision

* = Registered Trademark

Design subject to alteration without notice.

ERNST LEITZ GMBH D 6330 WETZLAR GERMANY

Subsidiary: Ernst Leitz (Canada) Ltd., Midland, Ontario

List **210 - 26 / Engl.** Printed in Germany IX/71/LX/B