



The not-only-but-alsomovie-camera

The LEICINA® SUPER RT1 is a fully electronic movie camera with which you can film not only simply by pressing a button but also with all the tricks of creative film production. Electronics open completely new dimensions to the cine amateur. Whether he shoots a family chronicle or a competition film. relies on automation only or has professional aspirations. Filming as a hobby has remained one of the few media that is evidence of individual creative thought and personal style. Even the technically less skilled are often people with good ideas and the right eve for a subject.

The LEICINA SUPER RT 1 is a movie camera with which you can fully exploit the entire range of the most interesting trick possibilities.

The LEICINA SUPER RT 1 is not a camera with programmed directions.

For in the realm of imagination and individual ideas not even the most advanced electronics can replace your brain. But they can do many other things. For instance keep your mind free to concentrate on the fun of filming.

With which you will buy today what you would surely miss tomorrow.

LEICINA

RT

Automatic dissolves and double exposure Fade-in, fade-out

8x zooming range (power-driven)

5 speeds - long-time exposure

Slow motion - time lapse

Remote release via cable or radio control

Lip-sync sound filming Single-frame flash Programme control



Shoot exactly what you see filming can be simple, filming can be fun.





The large, flicker-free viewfinder shows you your subject, picture area, and lens aperture. Even if you wear spectacles you will be able to survey the entire viewfinder image. You can focus critically with the central split-image rangefinder. Prominent symbols indicate "too little light" or "diaphragm completely closed". A greenyellow-red signal indicates how much film you have left. Incidentally, the camera knows by itself when the end of the film has been reached: it will switch off automatically. (This eliminates the nuisance of missed scenes). Nor do you have to worry about the exposure control. The electronic mechanism of the LEICINA SUPER RT 1 takes perfect care of it. All you have to do is insert the Super 8 cassette in the camera, which automatically programmes it for the correct film speed. But you can also override this mechanism whenever required. If you want to adjust the exposure individually for special effects, simply disengage the automatic mechanism. After all, you are the man in charge. The camera relieves you of the donkey work only as long as you want it to.



Automatic dissolves double exposures fade-outs fade-ins



Filming is fun with the LEICINA SUPER RT 1













You will be delighted with it

Give your films the professional touch – the LEICINA SUPER RT 1 makes it so simple. All you have to do during dissolves is press a button on the top of the camera – the LEICINA SUPER RT 1 automatically looks after the rest.



LEICINA SUPER RT 1 fully electronic



The possibilities of modern electronics are fully exhausted in the LEICINA SUPER RT 1. This means:

enlargement of the range of functions;

increased reliability of the camera. The following mechanisms are electronic:

1. The automatic exposure control; this makes measuring mechanisms, which are accident-prone, redundant.

2. The automatic dissolve mechanism, which ensures optimum transitions.

3. The speed control; it eliminates the conventional centrifugal contacts.

4. The release; it permits genuine remote control and long-time exposure. In addition, single frames can be switched via all releases.
5. The synchro generator; it is built into the control unit and permits lip-sync sound filming.

6. The interval timer in the control unit; it offers the possibility of automatic release of single frames and sequences of scenes in a wide range of variations.

The most important component groups are designed in integrated technique – the most progressive way of keeping electronic component groups small and reliable. The fully electronic design keeps current consumption low, so that the batteries have a long life.

Electronic automatic exposure control

The LEICINA SUPER RT 1 continuously regulates exposure during filming by means of a precise measurement through the lens of the intensity of illumination. The acceptance angle is slightly smaller than the angle of view; the automatic exposure control therefore pays more attention to the pictorially important portions in the centre of the picture than to the features along the margin.

As the diagram below shows, the rotary stop has been designed as a conical mirror. This deflects the full light flux from the beam during the dark phase and directs it towards the CdS measuring cell (photo resistor). The available light is therefore fully utilized both for filming and the control of the exposure regulator.

The CdS measuring cell is part of a Wheatstone bridge circuit. The measuring signal of the bridge controls a midget motor via an integrated amplifier, opening or closing the symmetrical diaphragm in the lens depending on the object brightness.

An advantage of this electric wheatstone bridge is that its measuring signal is independent of the battery potential (this also makes an additional Mallory battery unnecessary). Film speed 25 to 400 ASA (15–27 DIN).

Rapid selective measurement in extreme lighting conditions

The LEICINA SUPER RT 1 solves even difficult exposure problems with the greatest of ease. In special cases a pictorially important detail can be measured with the maximum focal length and the measured value fixed. It is thus very simple to manipulate exposure creatively.

This "selective measurement" of the detail of a picture makes – unless you happen to be filming with focal length 64 – a close-up reading of the object superfluous and represents, because of its convenient handling, an important advantage of the LEICINA.





- 1 objective
- 2 objective diaphragm
- 3 diaphragm adjusting motor
- 4 amplifier
- 5 speed selector
- 6 mirror diaphragm
- 7 filmgate
- 8 film
- 9 photo-resistor
- 10 exposure correction
- 11 wheatstone bridge
- 12 film speed

8

Plus-minus correction without additional exposure measurements

The LEICINA SUPER RT 1 permits the deliberate plus or minus correction of the automatic exposure control, for instance in the snow or on the beach, without the need for previous determination of the effective lens stop via a trial measurement. The setting on the rotating knob for the plusminus correction is sufficient. Sudden changes of the illumination (for instance clouds in front of the sun), too, no longer present an additional mental problem.



Constant frame frequency and exact exposure through electronic speed control

The sensitive spot in movie cameras is the constancy of the frame frequency. The LEICINA SUPER RT 1 solves this problem with the contactless electronic speed control with tacho-generator. In combination with the variablegain amplifier it ensures that the motor will always be supplied with the correct potential. This eliminates the centrifugal contacts, which are prone to breakdown. The result is long life and constancy within a wide range of potential, torque and temperature. A further advantage is the uniform exposure during the change of the 4 running speeds:

- 9fps = time-lapse frequency
- 18fps = normal frequency
- 25fps = television frequency and recommended for panning
- 54fps = slow-motion frequency of 3x expansion. The low moment of inertia of the drive motor with coreless armature also ensures uniform exposure of moving pictures and single frames.





Equipment

Со	de No.	Co	ode No.	Co	de No.
LEICINA SUPER RT 1* with 8–64 mm LEICINA-Vario f/1.9 lens (without midget batteries)	20513	Cable release, length 50 cm (20 in) with arresting screw	14 076	Electronic control unit for continuously- adjustable time-lapse shots, long-time exposure,	22 226
Soft leather ever-ready case for the basic outfit	22 444	Battery housing for 5 midget batteries (replacement)	22 224	remote release, lip-sync sound filming, external supply, and for elec- tronic flash synchronization	
Supplementary front lens attachment for close-ups up to 0.4 m (16 in) focusing distance, smallest object field 17 x 22 mm	22 003 1	Universal handgrip (at design stage, illustration see back) An important aid to hand- held filming with long focal lengths.	14 188	Connecting cable from 9-pin socket of the camera to the control unit	22 225
Angle viewfinder	14186	and the second sec			
Holder for angle viewfinder	22 221	Cable release for universal handgrip	22 2 19		

* The LEICINA SUPER RT 1 displays the interference suppression symbol.



The LEICINA control unit

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Further details see pp. 14, 18.

LEICINA SUPER

RT 1

Electronic release

The electronic release via a relay offers the following advantages: 1. Single frames can be released both on the camera and via the remote release.

2. The electronic release avoids the unpleasant rattling which occurs when the release is actuated slowly. 3. Even with remote control the camera is always exactly started and stopped. The remote release magnet is built into the camera. The appropriate connections are accessible via a socket on the top of the camera.

4. Any kind of interval timer can be connected, for instance the original LEICINA control unit. 5. The motor powering the singleframe mechanism is electrically switched off after each frame so that waste of current is avoided. (Evidence significant of the care devoted to the detail design) 6. For long-time exposures, the camera can be handled like a photographic camera with T-setting. A luminous diode signals that exposure is in progress. **Single-frame counter**

The single-frame counting mechanism of the LEICINA SUPER RT 1 eliminates a source of error during trick work: the tedious counting of the individual exposures. The number of the single frames can be read off a counting mechanism on the left side of the camera. This counting mechanism can also be used to determine the projection time of time-lapse sequences exactly.

Reliable battery tests

When a battery is tested a high camera load is simulated. This ensures reliable functional tests without loss of film. The practice of battery checks: Set the speed selector at 18 and depress the red index button. A pointer will appear in the control window on the right of the camera. When it is deflected into the white field, the current source is sound, otherwise the set of batteries must be replaced.

Close-ups from a distance

The LEICINA SUPER RT 1 at the 64 mm focal length setting covers an object field of 47 x 63 mm (almost the size of a matchbox) at a distance of 90 cm (32 in). When projected on a screen measuring about 1 m (40 in) across, the object will be reproduced at about 200 x magnification. The long camera distance of 90 cm (36 in), for instance, makes it possible with close-ups of insects to remain outside the flight distance of the animals. With a supplementary front lens attachment the camera distance can be redu6ced to 40 cm (16 in) and the object field to 17 x 22 mm.



Functional style Secure grip

The elongated shape of the LEICINA with the special low-level viewfinder arrangement, the hinged handgrip with the thumb-operated release and the forehead rest designed as a battery holder guarantee a very secure threepoint support during filming and simultaneous operation of the trick buttons, which are grouped on top of the camera so that the operating forces are absorbed by the handgrip and the second hand.

The elongated shape is essential for hand-held filming free from camera shake.

Conveniently grouped trick buttons

The trick devices of the LEICINA SUPER RT 1 are grouped conveniently on top of the camera.

- Rocker switch for power zoom.
- Switch for rapid zoom (with locking device).
- High-speed button (with locking device).
- Second release, which can be locked for continuous running, with cable release bush.
- Diaphragm locking button (with locking device).
- R button for automatic rewind of the film for dissolves or double exposures, fading-in and out.



Reliable operation even at low temperatures

The entire battery set for the drive motor, the zoom motor, and the automatic exposure control is built into the forehead rest of the LEICINA RT 1. It can be easily removed at any time and placed in the pocket for warming up. At very low temperatures the battery can be used in the control unit instead of in the forehead rest, and the control unit kept at body heat.

The daylight/artificiallight filter

With the setting button on the right of the camera a built-in conversion filter is inserted in or removed from the optical path of the camera lens. The rotating knob has 4 settings.

1. Exposure of artificial-light colour film in daylight (with conversion filter, e. g. KA II by Kodak or CK 17 by Agfa-Gevaert).

2. Exposure of artificial-light colour film in artificial light (without filter).

3. Exposure of black-and-white film in daylight or artificial light (without filter).

This setting also applies to daylight colour film in daylight.

4. Exposure of black-and-white film with the conversion filter in the optical path (for the above-mentioned effect).

Remote control with pre-set exposure

The LEICINA control unit has been designed as a complete remotecontrol unit. This also includes the function of the automatic exposure control.

Possibilities of remote control facilitate the shooting of timid or dangerous objects, settings with a hidden camera, and filmed self-portraits.

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Time-lapse opportunities Sound filming made easy as never before

The LEICINA SUPER RT 1 connected with the control unit offers superior time-lapse possibilities. Single frames or scenes at intervals from 0.3 sec to 5 min can be released automatically, with a variation in scene length from 0.5 to 8 sec.

This not only produces time-lapse effects but also solves all problems of monitoring or recording. The interval timer is suitable also for the release of long time exposures of up to 5 min. If necessary, the programming possibilities included in the control unit allow non-stop recording up to 12 days, since a Super 8 film accommodates 3600 single frames without change of cassette.

Flash during filming

The same LEICINA control unit permits synchronized single-frame shots with flash. The single-frame flash technique opens up completely new fields of subjects for filming whenever extremely powerful light, mains-independent light sources or supplementary light sources in daylight are essential. The LEICINA SUPER RT 1 places a timing impulse alternatively per picture and per every fourth picture via the control unit; this impulse determines the synchronous running of the projector (standard sound system). LEICINA SUPER and tape recorder start synchronously. Lip-sync sound filming is possible with a suitably equipped tape recorder connected via the control unit, without the need of first placing an impulse track on the magnetic tape. Since the synchro-generator is built into the control unit, shooting with a mains-independent tape recorder can also take place outdoors.

- **1 LEICINA SUPER RT 1**
- 2 connecting cable
- 3 control unit
- 4 connecting cable
- 5 tape recorder
- 6 microphone



Flawless filming with LEICINA SUPER ease.

Filming is fun with the LEIGINA SUPER RT 1

This means:

Forget everything that has made filming difficult in the past. You can afford to forget it – thanks to the fully electronic technology of the LEICINA SUPER RT 1.



Take up filming and double your enjoyment of life

During actual shooting and when you show your films.

By the way, you will fully appreciate the value of the film usually only after years when almost forgotten adventures stored on celluloid come back to life and you regret time and again that you had been far too stingy with your film.





8x zoom range through LEICINA power zoom

You are cameraman (or woman) and director rolled into one. Without taking the eye from the viewfinder you zoom through the long focal length range from 8 to 64 mm – quickly or slowly, as you wish. Forwards or backwards, close-up or long distance.

Press a button and the zoom lens automatically changes the picture area.

Our comparison pictures demonstrate better than any words the effect of this focal length range. Without change of the camera position the LEICINA zoom lens pulls in the subject 8x closer for an imposing close-up. The brilliant, bright viewfinder image always shows the precise picture area.

8-64 mm

Today without frills tomorrow with all the tricks. Film as you like. The LEICINA SUPER RT 1 offers you the choice.

Some cannot wait to see a flower unfold the LEICINA SUPER can - and film for 12 days.





You can set the control unit for the desired time-lapse programme and walk away. The LEICINA will now film automatically according to programme: progress too slow for the eye to perceive will be filmed in single frames or short bursts with intervals. The progress of a movement occupying several days and nights or the slow change of a scene, for instance the approach of a thunderstorm, can thus be condensed into a few minutes' projection time and rendered visible. The control unit enables you to assume the role of a magician. Persons disappear. bottles become empty, glasses are

filled, the holiday luggage jumps into the car as if by magic, birthday or breakfast tables lay themselves, your film title writes itself in the sand, etc. In professional use this permits, for instance, monitoring of traffic density, frequency of cash register, frequency of escalator use, assembly control (pre-fabricated buildings), protection against raiders, etc.

A collection of work sheets No. 210–27 contains hints of these and similar applications of the LEICINA SUPER RT 1 including the instrument combinations required for a given purpose.



Film with all tricks or without frills The LEICINA SUPER the choice offers you

LEICINA SUPER

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