



**MOVEXOOM 10 sound**  
**mos electronic**





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# MOVEXOOM 10 sound mos electronic

You have chosen the AGFA MOVE-XOOM 10 sound, one of the world's top notch products. This camera will never set a limit to your creativity, whether you produce lip-sync sound motion pictures using the Super-8-Sound cassette or a motion picture full of tricks using the standard Super-8 cassette.

Modern electronics enabled us to provide for you a large number of automatic aids and refinements in a minimum of space. You can thus concentrate on the scene and forget technicalities. On the other hand, you may switch off the electronics and assume control at any time. MOVEXOOM 10 sound offers all the prerequisites to achieve outstanding results, but in the end it will be you who will be in charge

of all its features. On the pages to follow, we would like to familiarize you with the MOVEXOOM 10 sound.

A special design feature of this camera is the MOS circuit (MOS = metal oxide semiconductor), not much greater than one square inch, but comprising 1,800 transistors. It may be called the brains of the camera. A fractional horsepower stepping motor obeys its instructions and opens the aperture in digital increments. A slight change in illumination — and the motor will correct the aperture without delay. You can perceive the operation of this motor by its typical sound. Another advantage for you: this photometric system is absolutely shockproof and insensitive to vibration.

To operate the camera, equip it with six Mignon cells 1.5 V and a battery of 9 V as explained on p. 20/21. You will find more tips on batteries on p. 23.

With the MOVEXOOM 10 sound you may use Super-8 silent film or Super-8 Sound cassettes, for instance, Agfachrome Super-8 and Agfachrome Super-8 Sound, respectively. The film for sound motion picture has a sound track (see p. 24).

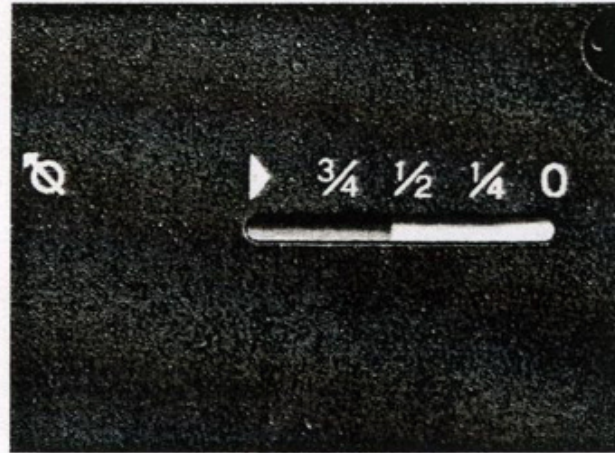




### 1. Loading the Film Cassette

Press down the locking key (1) and the cassette compartment cover will swing open. Insert the AGFACHROME film cassette so that the lettering remains visible and press it down.

When you close the cover the sound channel is automatically closed. Press down the compartment cover until it snaps in.



### 2. Film Supply Indicator

The film supply indicator shows how many meters of white strip is still in the cassette (in the illustration about half of the film cassette is still unexposed).

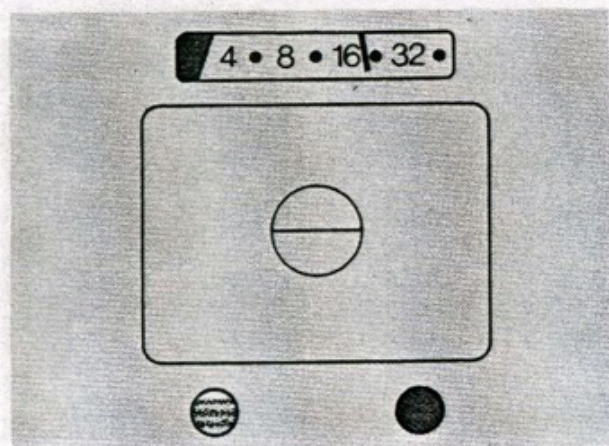
When the cassette is removed the indicator returns automatically to starting position ►. When removing a partly exposed cassette it is advisable to note the film supply indicator reading on the cassette.



### 3. Film Window

Looking through this small window you can check the type of film loaded (sound or silent) at any time.





#### 4. Viewfinder

The large image reflex viewfinder provides information on the most important camera functions:

##### — Picture area

See page 10: the parallax-free viewfinder shows the exact picture area recorded by the film. The picture area can be varied by turning the manual zooming wheel (12).

##### — Rangefinder

See page 9: in the center of the viewfinder image there is a split image rangefinder.

##### — Aperture indicator scale (9)

The light is measured continuously when the camera is switched on. This is indicated by the characteristic noise of the stepping motor which starts up each time lighting conditions change.

A pointer on the aperture scale (above the viewfinder image) indicates the aperture set. When the pointer is at the limit between the red area and the indicator scale it is still possible to continue filming (marginal illumination), if, however, it is actually in the red area you should not continue filming (risk of underexposure).

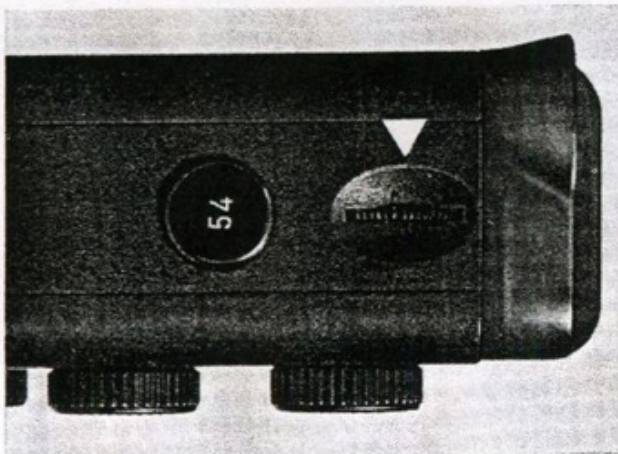
##### — Film running indicator (15)

Proper film advance is indicated by a circular intermittent light indicator at the bottom left-hand edge of the image. It stops at the end of the film (see p. 22), lap dissolve (see p. 15), and in the event of a cassette fault (see page 20).

##### — Filter signal (20)

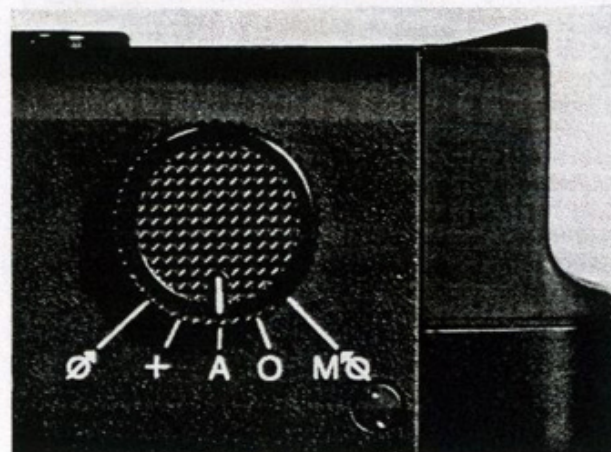
At the bottom right of the viewfinder a red LED lights up when you have changed over to artificial light (see page 17).





## 5. Adjusting Viewfinder Eyepiece

The viewfinder eyepiece can be adjusted to suit your eye within a range of +2 to -4 diopters. First of all turn the focusing wheel to "infinity" and the manual zooming wheel (12) to maximum tele, that is to say, to 60 mm focal length. Now point through the viewfinder at a distant object with a pronounced vertical. Then turn knurled knob (5) until the outlines of the split image rangefinder appear sharp and the vertical passes through sections of the split image rangefinder forming a straight line without misalignment.



## 6. Main Switch

The markings on the knob are as follows:

- O = Camera switched off
- A = Camera switched on (automatic operation)
- +
- M<sup>Q</sup> = check battery for automatic exposure control and film feed  
M<sup>Q</sup> = motor
- Ø = check battery for sound amplifier.

For these checks, rotate the main switch in either direction so that the white marking line points to the symbol. A red glow from the light-emitting diode (25) indicates that the batteries are serviceable (see p. 20/21).

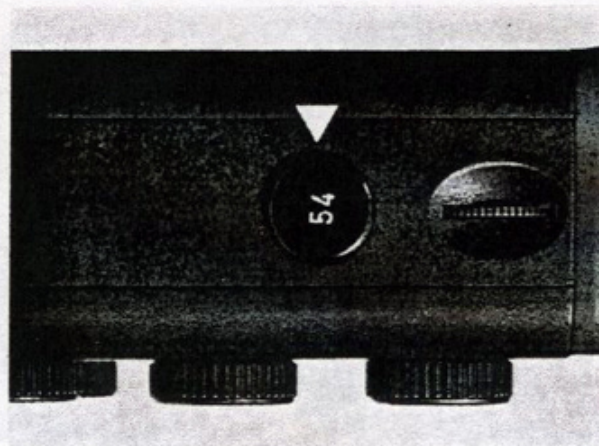


## 7. Filming speed

a) with sound film cassette

Rotate marking line on knob to  
 18 = standard speed of 18 frames per second  
 24 = 24 frames per second for enhanced picture and sound quality. Ambitious amateurs also use this speed for synchronization at a later time employing a sound film projector (e.g. Agfa Sonector LS). Of course, just as with a tape recorder, enhanced quality means increased consumption of recording material.





9 = time-lapse motion with 9 frames per second.

This speed is disabled when you insert a sound film cassette because the sound recorded at this speed would be distorted in playback with 18 or 24 frames/sec. and become unintelligible.

b) with silent film cassette

Rotate marking line on knob to

18 = standard speed of 18 frames per second

9 = time-lapse motion of 9 frames per second

24 = moderate slow-motion picture of 24 frames per second

## 8. Slow Motion

54 = Extreme slow motion (54 frames per second), set 18 f. p. s. speed (or 9–24 f. p. s. speed), press release button (16), then additionally press slow motion key (8) marked "54".

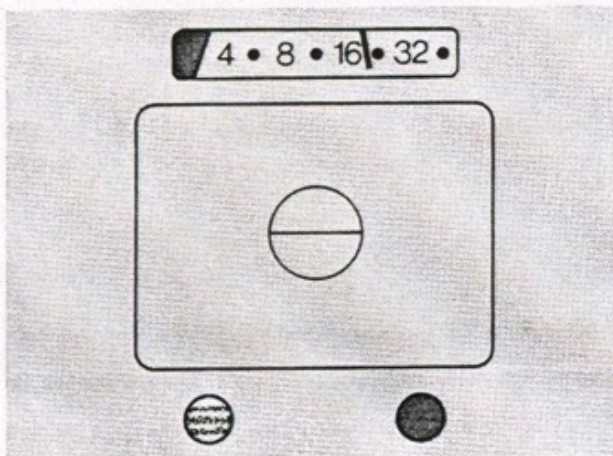
When a scene has been completed, first let go of slow motion key and then the release button (16).

It is possible to check whether illumination is sufficient for slow-motion filming if the slow-motion key (8) only is depressed before starting the film scene.

The running speed of 54 frames per second is disabled by insertion of a sound

film cassette for the same reason as with 9 frames per second, namely because of differing recording and playback speeds. Do not press the 54 key during a sound picture shot because the aperture would be opened by two additional values, thus overexposing the film.





## 9. Automatic Aperture Control and Manual Aperture Setting Switch

When the camera is switched on (main switch on A or +) the aperture is continuously and accurately controlled digitally by the stepping motor in extremely small steps.

For automatic aperture control the white mark (on the aperture setting switch) must be vertical. The light is measured through the lens. Filming speed and film setting are automatically taken into account. On the aperture indicator scale a moving pointer indicates the aperture set in each case. If illumination is insufficient for filming, the pointer moves to the left into the red area of this scale.

### — Fade-in/out

Change of scene (change of subject, location or time) can be rendered more impressive if the scene is slowly faded out and the next one slowly faded in (see sketch, page 15). The sound fade-in and fade-out is available through operation of the release button (see pages 14/15 and 31) provided, of course, that a sound film cassette has been loaded.

### — Fade-out (film)

Shortly before the end of the scene: Pull aperture lever back (towards "out". In the viewfinder fade-out is indicated by deflection of the pointer to the right. This fade-out operation takes about 3 seconds. First let go of the release button and then the aperture lever.

### — Fade-in (film)

Before the beginning of the next scene pull aperture lever towards "out" for about 3 seconds. If the pointer on the indicator scale is not visible or if the increased noise of the stepping motor is audible, press release button (16), let go of aperture lever and continue filming.



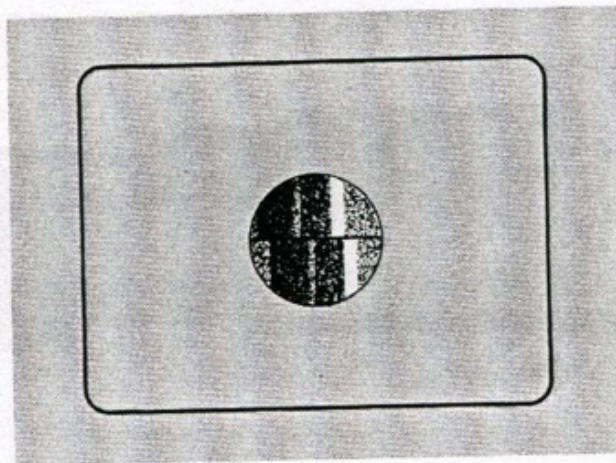
#### — Fixed Aperture

A fixed aperture setting is advisable if, for example, you want to film a regatta or moving traffic in the city and want to prevent the aperture setting from changing constantly as a result of objects passing in front of the camera. In such cases point the camera for example at the object (or the persons) to be filmed. When the pointer on the aperture scale indicates the aperture measured in this way, the aperture setting switch can be turned to "Fix" and the aperture thus determined is fixed.

#### — Manual

The automatic aperture control can be switched off. It is then possible to set a certain aperture manually. For this purpose the white mark of the aperture setting switch should be set to "Fix + Manu". Watching the indicator scale in the viewfinder, move the aperture lever backward and forward. As soon as the pointer indicates the required aperture, release aperture lever and the aperture is fixed.

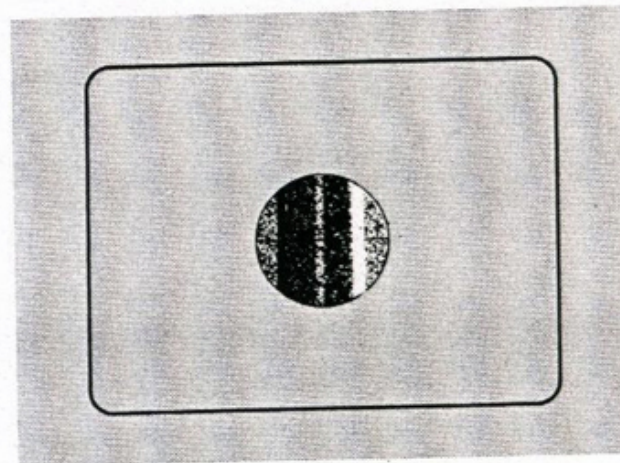
Manual aperture setting is necessary for example for titling, for stills using an electronic flash unit or when intentional over- or under-exposure should produce a special effect.



#### 10. Split Image Rangefinder

The split image rangefinder is in the center of the viewfinder. The rangefinder circle is divided into two by a horizontal line. Set the lens to full tele with the manual zooming wheel (12). Point to an object. Turn focusing wheel (see figure 10, arrow all black) until the object sighted (if possible a distinct line) passes continuously from the top half of the circle to the bottom half of the circle without misalignment.

White figures  
on the focusing wheel = metres  
Green figures = feet



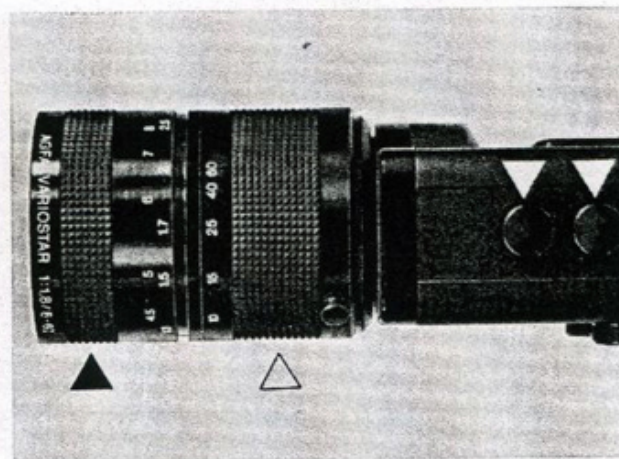


## 11. Zoom Lens

Change of focal length—called zooming—can be carried out by power control or manually.

Altering the focal length makes it possible for you to select the most suitable picture area without having to change your shooting position. The range setting may not be altered.

For power zooming one of the two buttons (white arrows as shown above) on the top of the camera should be pressed. Pressing the front button zooms the lens to wide angle, pressing the rear button zooms it to telephoto range. The MOVEXOOM 10 sound is equipped with two power zoom speeds. Pressing down to the first resistance



point— = slow zooming, pressing right down— = rapid zooming.

If power zooming is used while filming is taking place, a “travelling” effect is obtained.

## 12. Manual Zoom Setting

The picture area can be varied manually by turning the manual zooming wheel (12) (linear arrow in figure).

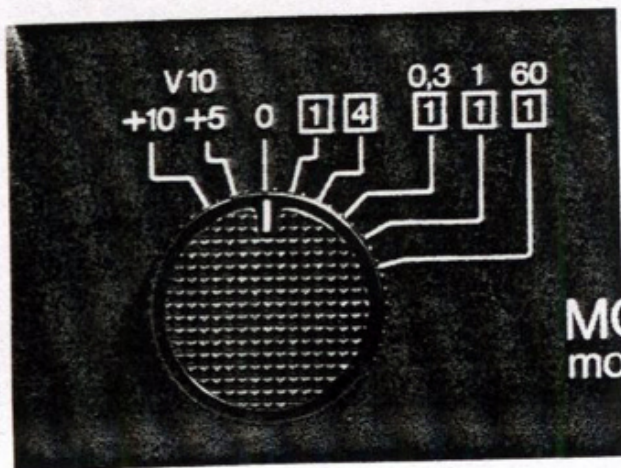


## 13. Macro Range

By pressing the locking button (13), the zooming wheel (12) can be moved into the macro range.

Filming can then take place at ranges up to the front element of the lens. Focusing is now possible by turning the macro wheel (= zooming wheel) with the aid of the split image range finder. Within this macro range the setting of the focusing wheel (10) is of no consequence. Differential focus is very effective in filming; it is obtained by turning the macro wheel. In the same way, it is possible to shift from the complete blurr of the macro range continuously into a preselected focus range.





#### 14. Special Effects Program

The MOS circuitry permits a wide range of special effects.\*

1. Electronic delayed release action with fixed delay period and two different scene duration times.
2. Manual single frame action with automatic titling.
3. Timer with 3 timing intervals of 0.3 sec., 1 sec. and 60 sec.

The entire special effects program can be used at a filming speed of 9, 18 or 24 f.p.s. (silent film cassette) and 18 or 24 f.p.s. (sound film).

Please note: Always select the special effects program required first and then switch the camera on. The special effects program is switched off by the main switch (6).

#### Important

\* For sound motion pictures, only the running speeds of 18 and 24 frames/sec are operative. With the sound film cassette loaded, the film is not advanced at 9 frames/sec although the LED at the camera front indicates the film feed.

— Delayed Release Action  
(self-timer)

Settings of the mark on the selector knob are as follows:

V 10 = The delayed action mechanism is started by pressing the release button. After 10 seconds of inaudible electrical delayed action the camera automatically films a scene whose length is in accordance with the following settings:

+ 10 = 10 seconds and then switches off automatically,

+ 5 = 5 seconds and then switches off automatically.

O = Special effects program switched off.

Sometimes extended self-timing periods are required for sound motion pictures.

In this case, use a commercially available remote-control with continuous-running switch, e.g. Rowi Fst.K. 10 m No. 26, or simply a cable release with lock screw. The advantage of the cable is that an actor may start and stop the camera, a feature handy in an interview, for instance.



Set the special effects program switch to 0 for selftiming exposures with the aid of the remote-control or cable release.

You can stop motion and take single shots even when a sound film cassette is loaded. This silent section of the film can be synchronized after film development in a simple way using a sound film projector as the Agfa Sonector LS.

— Single Frame Setting  
with Automatic Titling

**1** = Manual Single Frame Action

Each time the release button\* is depressed (or cable release or remote control) a frame is exposed. This is illustrated by two examples. Running title: a word is to be made up automatically letter by letter. Or: cases are to move to the car "on their own". To obtain these effects each letter or each position of the cases to be advanced step-by-step should be filmed using one or more single frames (see also special effects setting **4**).

**4** = On pressing the release button\* (or cable release or remote control) once, four single frames are taken consecutively at intervals of approximately 0.4 seconds. An example will illustrate this. Running title: marking a route on the map, dolls moving on their own, objects taking shape. The eye can appreciate these special effects better if each phase is taken with four single frames, that is to say, over a longer period. For difficult subjects it is advisable to take 2 x 4 frames.

\* = Exposure time  
at 9 f.p.s. = 1/18 sec.  
at 18 f.p.s. = 1/36 sec.  
at 24 f.p.s. = 1/48 sec.



— Timer

**0,3** = By pressing the release button\*  
**1** once, single frames are taken at intervals of approximately 0.3 seconds until the camera is switched off at the main switch. An example: clouds moving rapidly, people moving very rapidly (for example in a market scene).

**1** = By pressing the release button\*  
**1** once, single frames are taken at intervals of approximately 1 second. Example: speeding up a sunset on the film, showing work sequences accelerated, e. g. nailing on a fence.

**60** = By pressing the release button\*  
**1** once, frames are taken at intervals of approximately 60 seconds. Example: studies of growth. Opening of flowers filmed in time lapse.

The time required for taking a film with one cassette (about 15 m) set to

**0,3**  
**1** = about 20 min.

**1**  
**1** = about 1 hour

**60**  
**1** = about 60 hours

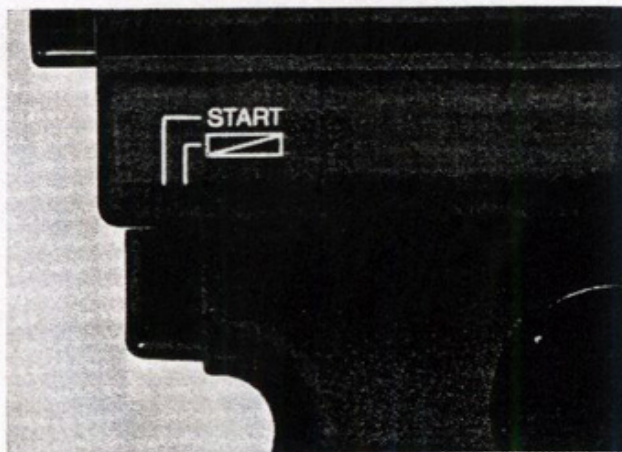
For an average length of a scene of 5 sec. at 18 f. p. s. projection time 90 single frames are required.



## 15. Light-emitting Diode

As soon as the camera starts running a red LED lights up on the front. This device provides a check. It is possible to determine whether filming is taking place which is particularly important, for example, in the case of shots using the delayed action mechanism, and especially sound film motion pictures.





## 16. Release Button with Integrated Automatic Lap Dissolve

The release button has three functions:

1. with silent and sound film cassette: press release button to pressure point for normal films as well as film plus recording;
2. with silent film cassette: for a fade-over, press the release button beyond the pressure point to its stop;
3. with sound film cassette: to fade out the sound, press the release button beyond its pressure point to the final stop (silent film).

To fade in, let go of the release button as far as its pressure-point position.

No fade-over of film scenes is available if a sound film cassette has been loaded.

Optimum lap dissolves are obtained at 18 frames/sec. When the release button is depressed to its fullest extent, the end of the scene is faded out, the pointer on the aperture scale in the viewfinder moves to the right, possibly right off the viewfinder, depending on the brightness of the object. Then the film is wound back to the beginning of the fade-out. The camera stops automatically, fade-out is thus completed even if the running noise of the stepping motor is still audible. Let go of release button.

At the next scene the release button is only depressed until the camera starts running (i.e. not all the way to the stop). The pointer of the aperture scale in the viewfinder renders fade-in visible. As soon as it stops the lap dissolve is completed and filming can continue uninterruptedly.

The changeover from one scene to another can be made particularly interesting by using lap dissolves. The end of one scene accurately fades into the beginning of the next scene. This operation corresponds to a projection time of approximately 2 seconds.




Important note: Lighting is inadequate for further filming if, before the second phase of the lap dissolve (fade-in), the pointer on the indicator scale in the viewfinder is to the left of f/22 (marked by the dot between f/16 and f/32). The new scene would be underexposed after fade-in.

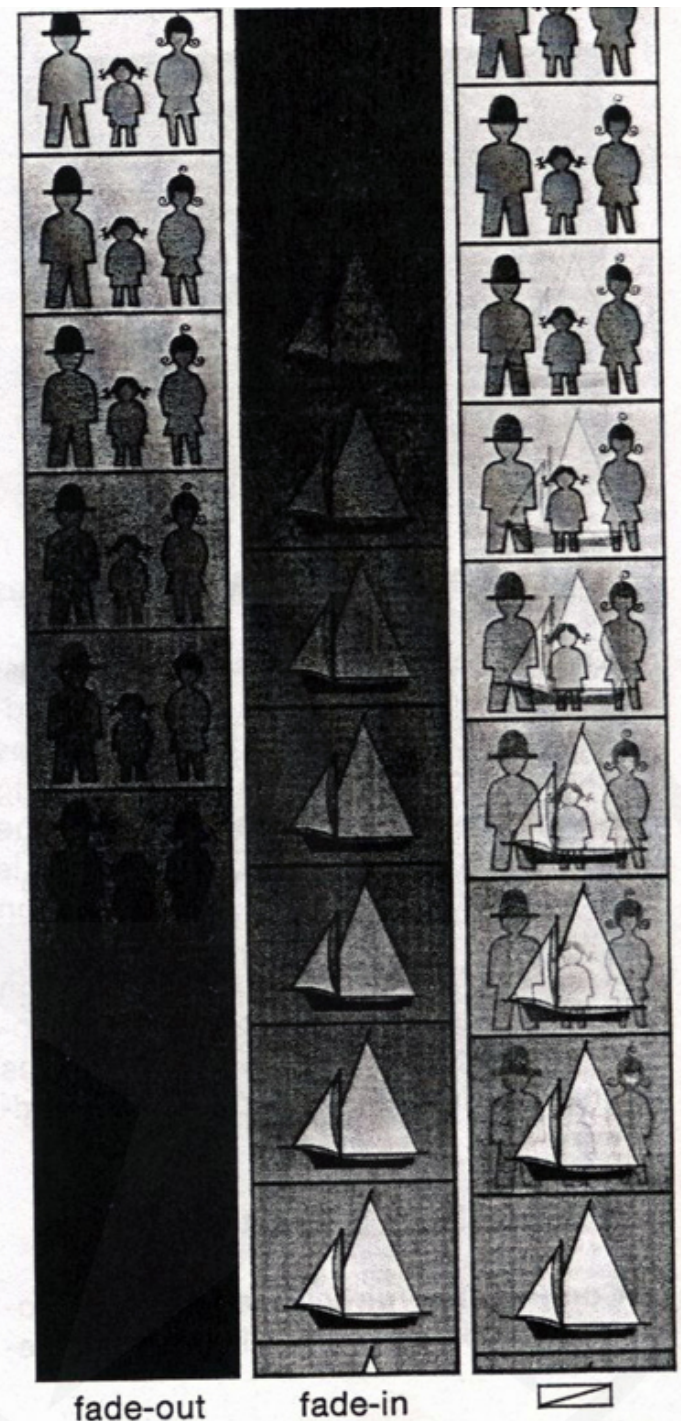
In order to avoid film feed trouble, complete the fade-over before loading a new sound film cassette.

#### Please note:

You may not change over from one scene to the next

1. at 54 f.p.s.
2. immediately before the end of the film (about 2 metres).

 = with silent film cassette: lap dissolve of scenes  
with sound film cassette: only sound fade-out and fade-in.







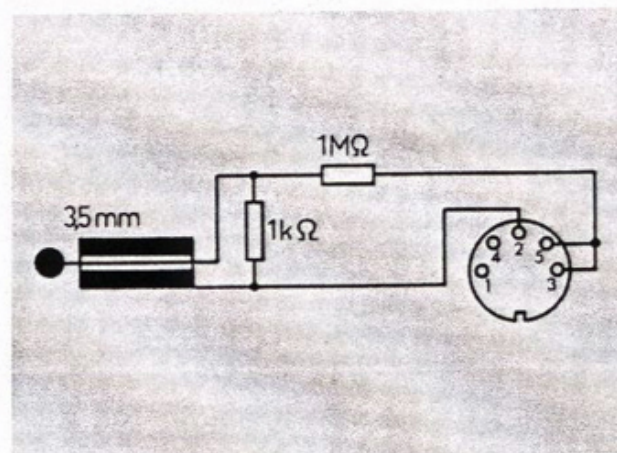
## 17. Live Stage Sound Motion Pictures

Load a sound film cassette and adjust main switch to position A. The recording amplifier is switched-on as soon as the cassette is inserted. Adjust running speed to 18 or 24 and connect the microphone. MOVEXOOM 10 sound is now ready for taking sound motion pictures.

You will find valuable instructions on the use and installation of a microphone at the end of these instructions under "Hints for Sound Film Recording".

### — Microphone Connection

Connect the directional Agfa microphone supplied to jack (17) of the came-

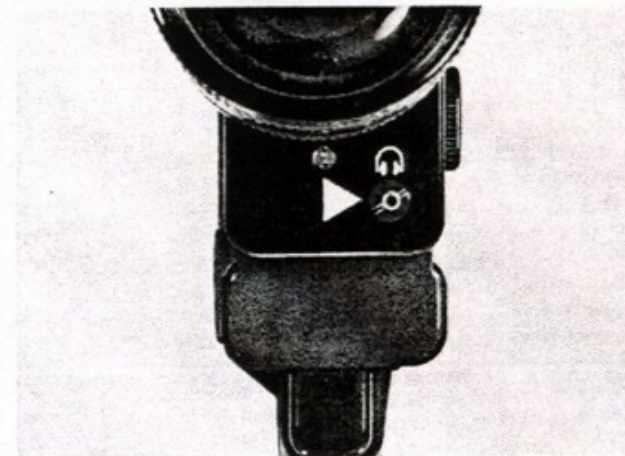


ra. The mike impedance of 500 ohms permits extension of the mike cable up to 50 m.

Inphase: sound circuit — shield  
A mixer can be connected to the mike input with the aid of a standard cable adapter. This permits direct mixing of speech and music. Any expert will be able to make the adapter shown above.

### — Automatic Modulation

MOVEXOOM 10 sound is equipped with an automatic sound control matching exactly to the sound signal. This high protection of the amplifier against overloading (1 : 1,000) eliminates the need for an indicator.



## 18. Listening-in Monitoring

The earphone supplied can be connected to jack 18. Using a Stetoclip commercially available, it can be expanded into a double earphone. An even better sound impression can be obtained from any commercial headphone with an impedance between 1 and 5 kilo-ohms and a jack plug of 2.5 mm. You can thus select the most favorable mike distance before recording; moreover, you can continuously monitor the sound input during the recording and change your position as required.





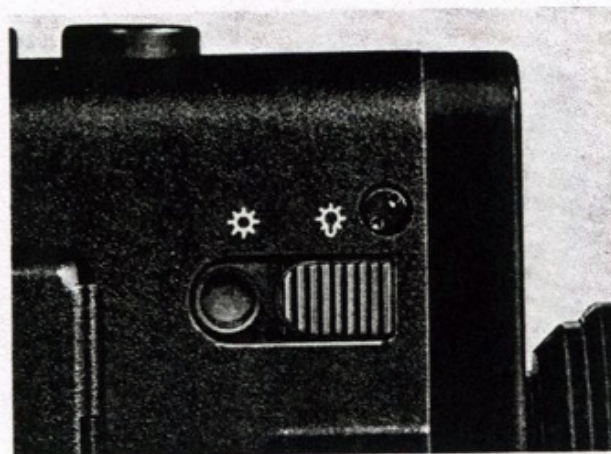
### 19. Change-over switch for Input Sensitivity

The mike cable has a change-over switch with the positions ● and O.

In position ● the amplifier has its full input sensitivity for normal operation which is reduced by about 10 dB in position O.

In position O disturbing ambient noise is efficiently suppressed, but the speech quality remains unaffected.

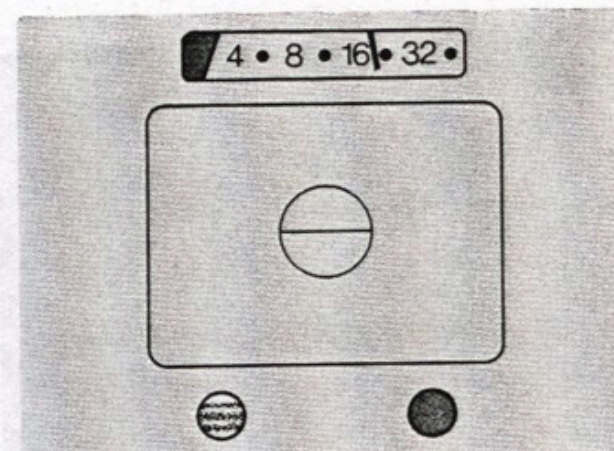
Position O is primarily handy indoors to attenuate the camera running sound in situations where speech is to be recorded in spite of high background noise (e.g. road traffic).



This switch may also be operated during the filming; no switching click will be audible.

### 20. Filming By Artificial Light

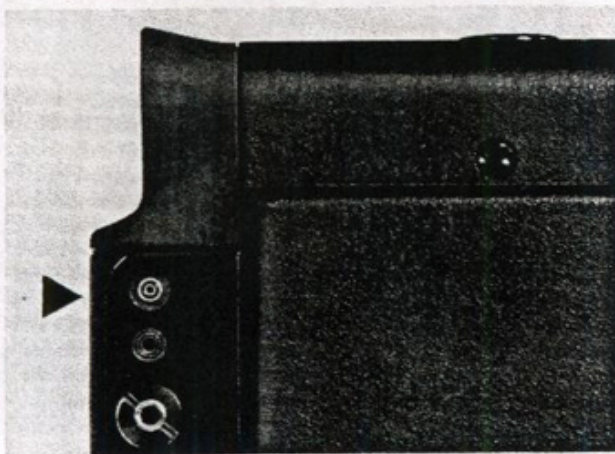
AGFACHROME is a universal film—suitable for daylight and artificial light. Daylight shots are taken with a filter in position. For artificial light shots this filter must be moved out of the path of the lens. This is done with the filter slide mounted on the side of the camera compartment cover. For interior shots it is advisable to procure a movie light, such as the Cine Agfalux M. The bracket supplied is not meant to be fixed to the MOVEXOOM 10 sound.



— Filter slide in position ☼

You can fix the movie light directly to the camera with the special mounting bracket (order no. 5286/100). Thread in the mounting bracket and attach the movie light. For indirect lighting you can bend the mounting bracket back. At the bottom right of the viewfinder a red LED will light up. After completion of artificial light shooting unscrew the movie light again and return the filter slide to its original position ☼. The red LED will extinguish.

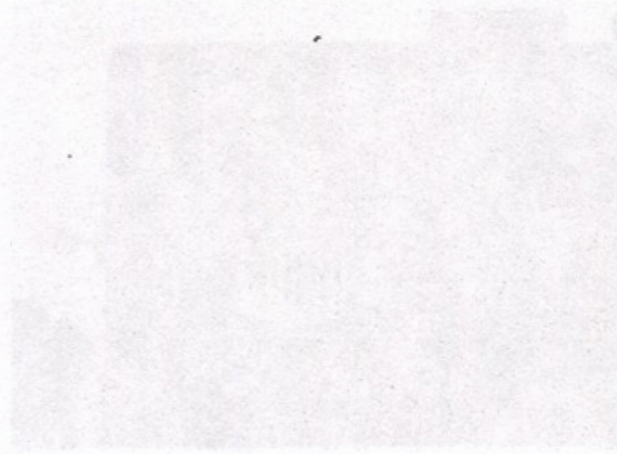




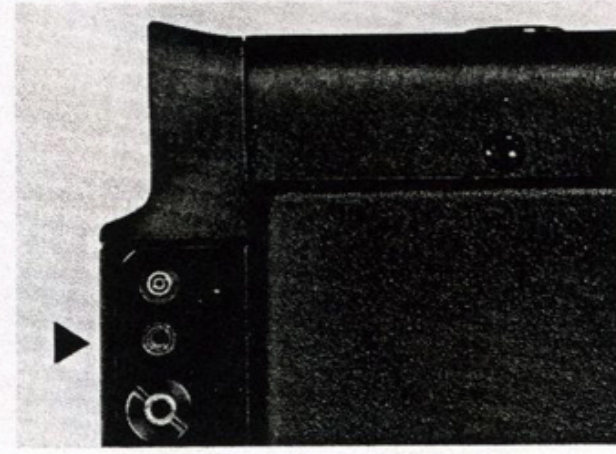
## 21. Connection of a Flash Unit

When set to single frame action (special effects program switch) for [1], [4], 0.3, 1 or 60 sec. illumination is also possible with an electronic flash unit. Example: studies of plant growth, heat sensitive subjects etc.

Socket (21) is provided for connection of the flash cord. As electronic flash illumination has the same colour temperature as daylight, filter slide (20) should remain set to the sun symbol and, for this reason, it is not possible to fit the flash unit onto the mounting bracket. A standard flash bracket (with accessory shoe) should be attached to the tripod bush (29) on the bottom of the handle.



The aperture is determined by the guide number of the flash unit used and should be read off from the table supplied with the flash unit. The aperture can be set manually as described under 9, Fix + Manu. As the flash unit requires a certain time for recharging of the flash capacitor (recycling time) only high-performance flash units, so-called series computers (e. g. the Agfa-tronic 360 CBS), can be used for setting to extremely short recycling times [4], [0.4 sec.], 0.3 and 1 second), but this only applies to the close-up range between 30 and 50 cm (exposure times see page 12).



## 22. Cable Release Connection

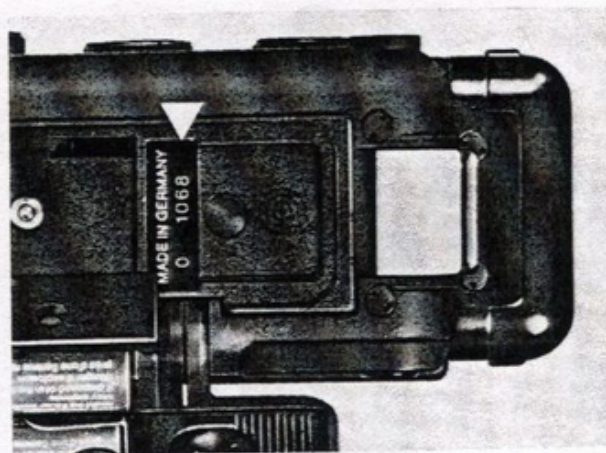
For absolutely steady shutter release (particularly from a tripod) a cable release should be used; it can be screwed into bush (22).





### 23. Electrical Remote Control

Connection of an electrical remote control (e. g. Schiansky or Rowi) makes it possible to film at a considerable distance away from the camera. First of all insert remote control cable in socket (23), then set main switch to A. The camera can then be started by the remote control. When you have finished shooting, always turn the camera off first and then pull out the plug of the release cable.



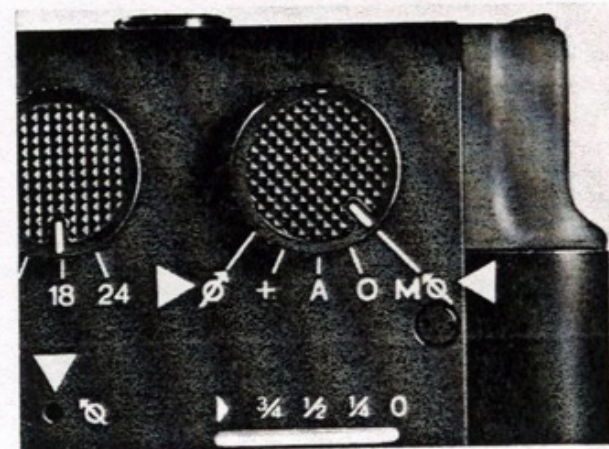
### 24. Serial Number and Radio Suppression Symbol

Every Movexoom is numbered and this number should be recorded.

The camera is radio suppressed.

### Film Running Indicator

While the film is running a circular intermittent light indicator at the bottom left of the viewfinder reads quickly or slowly according to the filming speed selected. It stops very briefly while the film faded out and rewind — during a lap dissolve — and of course as soon as the film is completely exposed. The red strip on the film supply indicator (2) then shows 0.



If at any time the film running indicator stops before the red strip in the film supply indicator is at 0, it should first of all be checked whether the batteries are still serviceable.

### 25. Battery Check

— Drive (Film feeding and automatic exposure control)

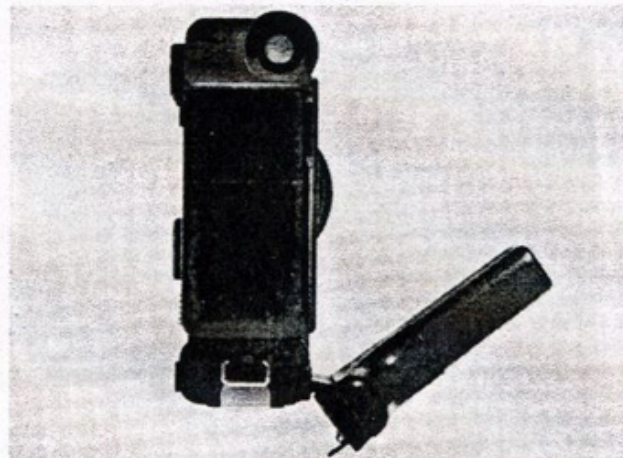
The batteries in the camera handle can be checked by rotating the main switch to symbol  $M^{\circ}$ , with the handle snapped in. If the diode (25) does not glow in switch position  $M^{\circ}$ , replace the 6 Mignon cells in the handle.



#### — Amplifier

For checking the amplifier batteries, it is a prerequisite that the diode (25) lights up in position M<sup>Q</sup> and the handle is snapped in. The battery in the camera rear can be checked by rotating the main switch counterclockwise to the symbol  $\emptyset$ . A glowing diode indicates that the 9 V battery checked is in good order. (See p. 21). Do not extend this check for too long a time because it consumes much current (drive and amplifier).

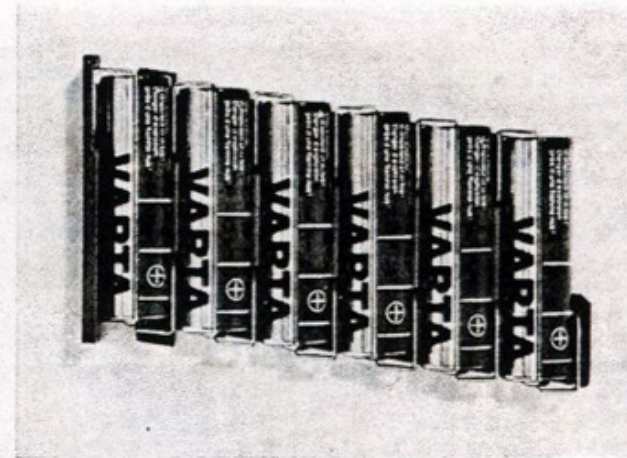
In case the diode lights up and the film is not advanced, a film transport fault in the film cassette may be the cause. Switch off the camera immediately (main switch from A to 0). Insert a new



film cassette and send the defective cassette to the manufacturer; the exposed section of the film will of course be returned developed.

#### 26. Handle Release

Press in orange button (26). Fold the handle away to the side. The circuit is broken and thus all functions such as film transport, automatic exposure control and power zoom are rendered inoperative.

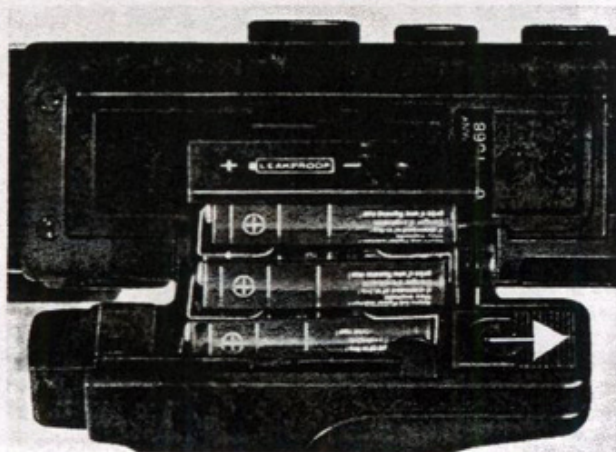


#### 27. Driving Batteries

The cells for film feed and automatic exposure control are accommodated in a magazine in the camera handle. For electrical supply use 6 Mignon cells LR 6 (1.5 V each) such as Varta 7244 (V 1500 U) or Mallory MN 1500 or Union Carbide E 91.

Fold off the handle by operating the handle release 26. Shift knurled key (marked by an arrow on left-hand figure, p. 21) to the right. Remove the battery magazine.



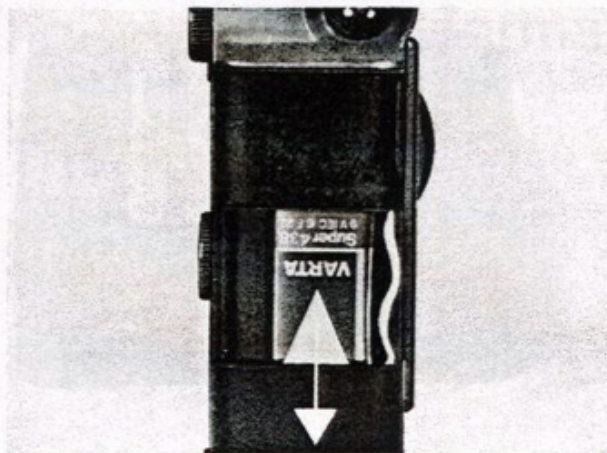


Insert all 6 cells with the plus pole against the plus contacts as marked in the magazine; then insert the magazine. Fold up the handle without pressing the orange button. If the batteries are incorrectly inserted the camera may be damaged.

Always replace the entire set of batteries at a time whenever the LED under the speed switch does not light up.

### 28. The Amplifier Battery

The sound amplifier battery is in the back of the MOVEXOOM below the seeker eyepiece. For electrical supply use a 9-volt battery, e. g. Varta Super 438 or Mallory MN 1604.



First adjust the main switch to 0 in order to switch off the camera. Pull down the battery compartment. Before inserting the battery, remove the contact strip from the compartment. Press the terminals of the 9-volt battery into the jacks provided. Mount the battery and shift the battery compartment cover upwards into its snap-in position.

### 29. Tripod Bush

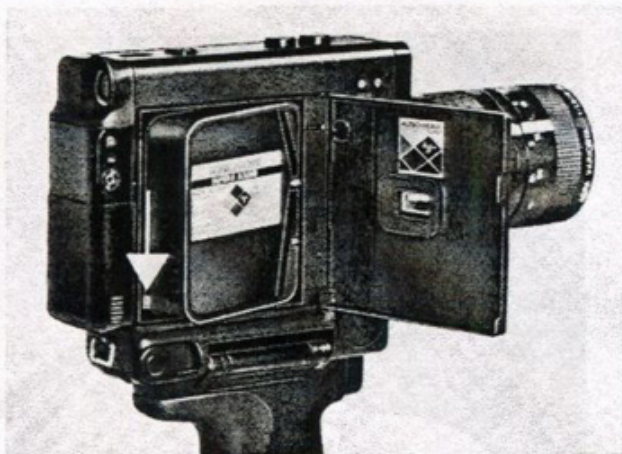
For special effect shots and for automatic release and titling it is essential to use a tripod. When filming with long focal lengths the quality of the pictures is considerably improved by using a steady tripod. Bush (29) is used for mounting the camera on a tripod. Only use DIN screws having a length under head up to 4.8 mm.



### 30. Wrist Strap

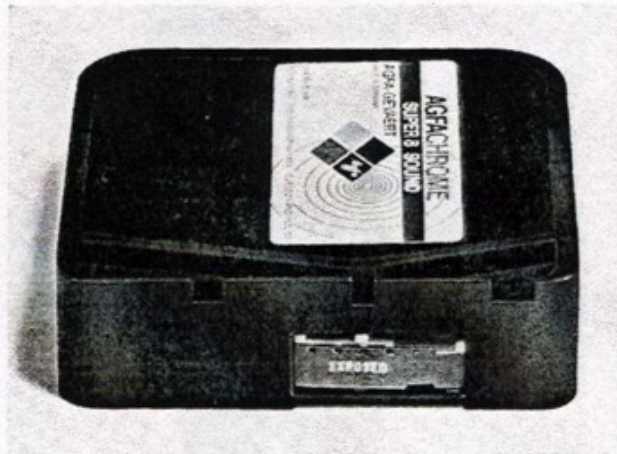
The end of the strap is threaded through the lug (30). Then insert the two clip parts in the apertures provided and press together until they audibly snap in.



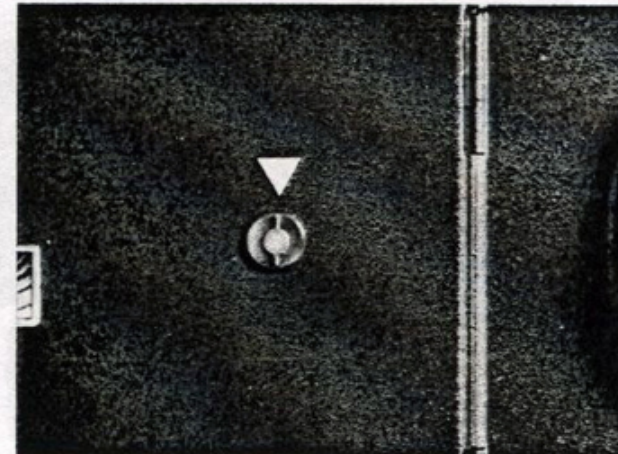


### 31. Film End

The end of the film is indicated by the intermittent light indicator (bottom left in the viewfinder) stopping and in addition the red strip of the film supply indicator (2) is opposite the 0 mark. The film cassette must be changed. Press the locking key (1) all the way down. The cover will swing open and the sound channel will be opened. Pull down the cassette lifter so the film cassette is lifted and can easily be removed.



The end of the film is marked "EXPOSED". Send the film in the envelope supplied to the nearest processing laboratory. Do not forget sender's address and stamps of correct value.



### 32. Film Plane Mark

As depth of field in the macro range is extremely small it is often necessary to check with a ruler. The distance is then measured from the film plane which is marked on the outside by the symbol  $\odot$  (see depth of field table page 37).

All rights for alterations reserved.



# Please note the following important information

## Batteries

After completing each scene return the main switch to 0. This will preserve the batteries and lengthen their life. When the camera is not in use disengage the handle. If you are filming at extremely low temperatures (below approximately  $-10^{\circ}\text{C}$ ) the battery capacity drops. It is advisable to remove the magazine with the batteries and the amplifier battery in it from the camera, keep it at body temperature and only insert it again when the next sequence is to start.

Instead of the 6 Mignon cells in the handle it is also possible to use 6 Ni Cd accumulators (Varta DEAC 451 RS or SAFT VR 0.5 AA). They can be charged with normal battery chargers. Please consult your photographic dealer. Accumulators are not only less sensitive to cold, but also have a practically unlimited life.



## Film Cassette

A Super-8 cassette contains 15 m film. At the running speed of 18 frames per second, the projection thereof will last 3.5 minutes.

The MOVEXOOM 10 sound camera will accept either Super-8 sound film or Super-8 silent film cassettes.

Loading of the sound film cassette results in automatic turning-on of the sound amplifier.

The films may have the sensitivity of DIN 17 or 23. A cassette scanner will transfer this sensitivity to the exposure control.

Super-8 sound films have a magnetic sound track. When the sound film cassette has been recorded, it should be protected against magnets, strong motors, and transformers which could disturb or partly erase the sound. In order to ensure even take-up and plane positioning at viewing window and sound head, an additional narrow magnetic track (balancing track) was applied.



# Hints for successful shooting

## Backlight

If with contre-jour shots you attach importance to good definition in the shadows it is advisable to move the mark on the main switch to +. The automatic exposure control is then corrected by about 2 DIN (plus  $\frac{2}{8}$  stop).

## Depth of field

The depth of field is dependent:

- on the range setting
- on the lighting conditions (aperture setting)
- on the focal length setting selected.

A depth of field table (page 37) provides information on this.

## Panning

Some scenes necessitate panning the camera to follow the subject. When panning, the subject determines the rate of camera movement.

## “Travelling Effect”

The effect of the subject “travelling” towards you or away from you is frequently used in filming. Do not overdo it, however, as otherwise the film will have a disturbing effect.



## Holding the camera

Always hold the MOVEXOOM as still as possible when filming. The functionally designed handle and the "chunky" camera body make it easy to hold the camera still. When filming in the telephoto range, it is advisable to rest your elbows on a firm support.

## Filters

Photographic dealers can supply a whole range of special effect and prismatic filters which you can use — but only when you are fully acquainted with your camera. (e. g. for alienation effects).

In the mountains and by the sea it is advisable to use an R 1.5 or Skylight filter. The filter mount diameter is M 62 × 0.75.

## Lens hood

For backlit shots and when filming reflective objects it is advisable to use a sun shield customary in trade (also called lens hood). In order to avoid vignetting in the frame corners, always use a folding lens hood adaptable to the large shooting angle at 6 mm for the MOVEXOOM 10 sound.

## Filming with the Super-8

Many other hints are given in the brochure published by Agfa-Gevaert

"Filming with the Super-8",

which is obtainable from your photographic dealer as of mid 76 at a nominal cover charge. Order no. 110.



# Hints for Sound Film Recording

Skilful camera handling and considerate placement of the microphone are indispensable for good live-stage sound records.

Neither the mike nor the sound unit of the camera have the ability of a human to concentrate on a certain sound source and to largely ignore interfering background sound or noise (masking effect). Therefore, the mike has to be brought into the most useful position. This can well be checked by the headphone supplied. The procedures here used have filled many books; however, the most important considerations will be discussed in the paragraphs to follow.

## Directional Microphone

Only a directional mike primarily accepting the sound to which it is directed and largely suppressing noise in its back (e. g. the running noise of the camera) should be used for live sound recordings. This requirement is met by the Agfa microphone supplied which certainly possesses cardioid characteristics.



## Microphone Distance

In open air, the distance between mike and camera should be at least 1 m, indoor at least 1.5 m up to 2 m. The directional microphone can be "outwitted" by sound-wave reflections in indoor rooms because interfering sound can find its way into the mike recording angle through reflections. This effect is particularly salient in high reverberation rooms. Favorable recording conditions will be encountered in rooms well attenuated by curtains, carpets, furniture etc.

A microphone visible to the camera during an interview or discussion is normally not out of place because it will stress the documentary character of the record. At any rate, always select the most suitable mike position. From a recording point of view, the distance between mouth and mike should never be less than 20 cm. In a discussion, only one person should speak at a time, otherwise unintelligible talk will result. This can be avoided by a chairman.

The mike is not coupled to the camera zoom lens. Hence, when taking a close-up, approach the mike as closely as possible to the talking person for a good ratio between visual and acoustical impression.



## Mounting the Microphone

Using the mike holder, you can place the mike on a table or other support so that it "listens" in the direction of the sound to be recorded. To avoid interference by vibration or shocks, place the mike on soft material, e. g. a blanket or felt.

## Holding the Microphone

The mike is sensitive to touch. Hold it as steadily as possible. Wrap the mike cable around your hand to preclude interfering noise that might be caused by the cable.

## Fixing the Microphone

If the scene to be recorded is favorable, you may fix the mike to the camera bag you are carrying. In this case you have both hands free for filming. For this purpose, the MOVEXOOM 10 sound carrying bag is equipped with a suitable fixing device. Make sure, however, the mike head is not covered or camouflaged and there is no interfering person or other obstacle between the mike and the sound source.

## Wind Shield

When taking shots in open air, always use the mike wind shield; otherwise even a slight breeze will be audible as hissing and hammering during playback. Noise of this type is generated close to the mike and cannot be heard by the human ear during recording.



## Whip Pan

The wind shield sphere is of porous foam plastics and will pass the desired sound waves, but greatly attenuate the wind noise to about one tenth of its original intensity.

For sound motion pictures the whip pan is an important feature which allows you to film different or changing parts of a subject. Turn your whole upper part of the body rapidly for this shot. Do not interrupt the sound recording, though. The quicker you do it, the steadier will be your motion picture. After each whip pan the camera should be stationary; take the picture for 2 to 3 seconds before you zoom for a close-up, if necessary. This movement can be done in horizontal or vertical direction; if the camera is in wide-angle adjustment during the whip pan, you need not be afraid of focusing problems. In case of tele adjustment, the scenes captured by the whip pan shot should have the same distance from the camera.



## Sound Fade-out and Fade-in

In a live-stage sound motion picture, the sequences of a scene are largely controlled by the sound. Make sure the sound is fully audible at all times. Should it nevertheless happen that you can approach a scene with the tele adjustment, but the mike cable is too short to guarantee full-scale recording, then rather fully press home the release button beyond the pressure point so you shoot the scene silent. Later, when the film has been developed, you can synchronize this section of the film with the aid of a sound-film projector, for instance, the AGFA Sonector LS (see Fig., p. 36).

Just as you can fade out from a visual scene and fade in for a new shot (see p. 8), you can also fade out and in the sound with the aid of the release button. To fade out the sound, fully press home the release button beyond the pressure point to its final stop. To fade in, go to this final stop first and then slowly return just past the pressure point position. Of course you may fade in and fade out both the motion picture and the sound at the same time even if not absolutely synchronously.



## Delayed Sound Recording

In order to accelerate the film and sound track to the nominal speed of 18 or 24 frames per second, a brief run-up time cannot be avoided. Since in playback a howling might be heard during this period of 1 second, the MOVEXOOM remedies this by a soft fading-in of the sound whenever a new scene is started. The effect upon the human ear is much more agreeable than a sound suddenly brought on.

Observe this delay when starting a dialogue and the like. Start the camera about 2 seconds before the talking begins.

Should you intend to cut your sound motion picture at a later date, then remember the standard spacing between picture and sound of 18 frames. In other words: cut 18 frames before the first and the last frame of a scene.

Therefore, in this case it is a good idea to shoot a silent film for several seconds between any two scenes; complete live-stage scenes can then be cut and assembled ungarbled.



## Length of Scenes

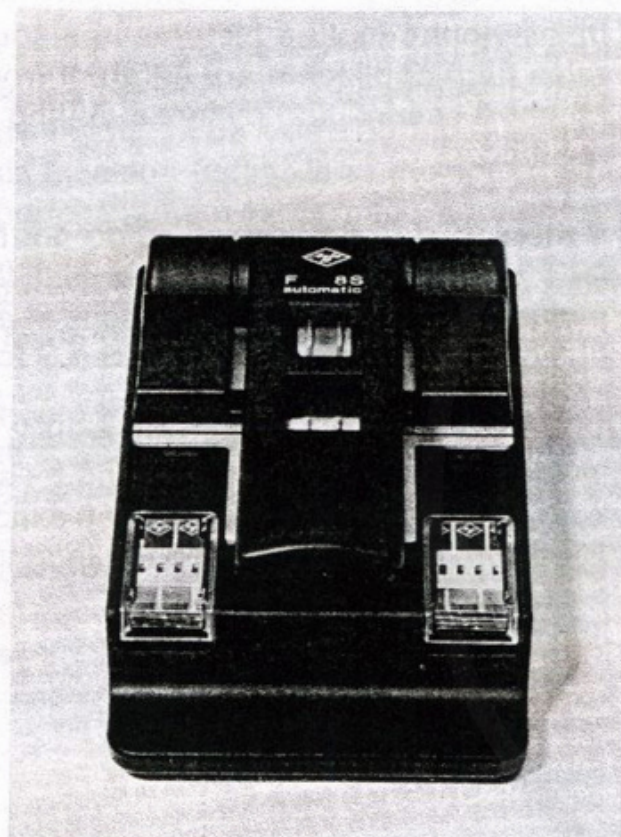
In live sound motion pictures, the sound governs the length of a scene and the rules here applicable are different from those for silent motion picture that lives on short scenes and dynamic cutting. Avoid short scenes or frequent change of position.

## Hints for Synchronization at a Later Time

If the sound is not attractive, do not hesitate to shoot the scene as a silent film (see sound fade-out). There is still the possibility of synchronizing the motion picture with music or a comment at a later date with the fully automatic sound-film projector Agfa Sonector LS (LS for live sound).

The Sonector LS permits subsequent optimisation of a live-sound film and underlaying or overlaying of the sound by speech, music, or noise. Using a correction key, poor livesound passages can exactly be erased and the resulting gaps can be filled with music or other sound in automatic operation.







### Camera case

including compartment  
for two films      Typ no. 6555/100

### Agfa splicers:

F 8 S automatic  
(fully automatic tape splicer)  
F 8 S  
(tape splicer)  
N 8 S  
(bevel edge splicer)

5258/222

5286

5257/000

### movie light Cine AGFALUX M

including halogen lamp 650 W

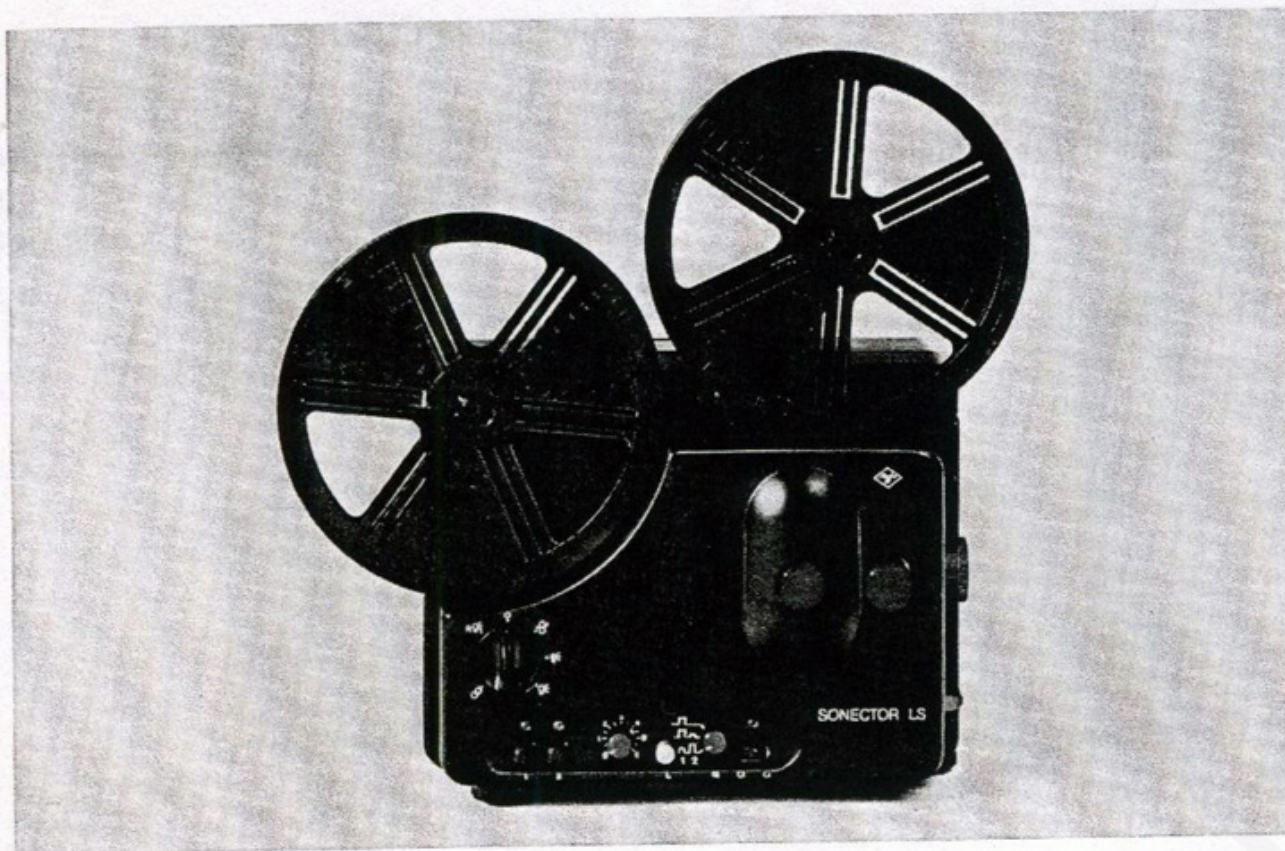
for 220 V      5281/220

for 115 V      5281/115

lamp bracket

5286/100





## Agfa Sonector LS

An ideal match for your AGFA MOVE-XOOM 10 sound is the AGFA SONECTOR LS, a super-8 magnetic sound projector setting new standards.

Brilliant projection

Novel automatic over-dubbing feature  
Correction button and listening-in control

Excellent recording and playback characteristics

For you this will mean: new recording methods at greater ease.

No matter whether you wish to improve your live-sound film by supplementary information (music, sound effects, talk) or your silent film by subsequent recordings.

\* LS = live-sound



# Depth of Field Table

Lens stop	Distance m	Focal length					
		f = 6	f = 10	f = 15	f = 25	f = 40	f = 60
1.8	1	0.67 - 2.00	0.85 - 1.21	0.93 - 1.08	0.97 - 1.03	0.99 - 1.01	0.99 - 1.01
	1.2	0.75 - 3.00	0.99 - 1.52	1.10 - 1.32	1.16 - 1.24	1.18 - 1.21	1.19 - 1.21
	2	1.00 - ∞	1.48 - 3.10	1.73 - 2.37	1.90 - 2.12	1.96 - 2.04	1.98 - 2.02
	3	1.20 - ∞	1.96 - 6.46	2.43 - 3.93	2.77 - 3.28	2.90 - 3.10	2.96 - 3.04
	5	1.43 - ∞	2.64 - 48.0	3.58 - 8.29	4.38 - 5.83	4.74 - 5.30	4.88 - 5.13
	10	1.67 - ∞	3.58 - ∞	5.57 - 49.0	7.80 - 14.0	9.00 - 11.2	9.50 - 10.5
	∞	2.00 - ∞	5.56 - ∞	12.50 - ∞	35.0 - ∞	89.00 - ∞	200.00 - ∞
4	1	0.57 - 4.30	0.79 - 1.37	0.80 - 1.14	0.96 - 1.04	0.98 - 1.02	0.99 - 1.01
	1.2	0.63 - 15.7	0.90 - 1.79	1.05 - 1.40	1.14 - 1.26	1.18 - 1.22	1.19 - 1.21
	2	0.79 - ∞	1.29 - 4.48	1.61 - 2.64	1.84 - 2.19	1.94 - 2.07	1.97 - 2.03
	3	0.91 - ∞	1.64 - 18.0	2.19 - 4.70	2.65 - 3.45	2.86 - 3.16	2.94 - 3.07
	5	1.03 - ∞	2.09 - ∞	3.10 - 13.0	4.10 - 6.40	4.60 - 5.50	4.80 - 5.20
	10	1.15 - ∞	2.64 - ∞	4.50 - ∞	6.90 - 18.0	8.50 - 12.1	9.30 - 10.8
	∞	1.29 - ∞	3.58 - ∞	8.00 - ∞	22.0 - ∞	57.00 - ∞	130.00 - ∞
8	1	0.40 - ∞	0.65 - 2.20	0.81 - 1.31	0.92 - 1.09	0.97 - 1.03	0.99 - 1.01
	1.2	0.43 - ∞	0.73 - 3.50	0.93 - 1.69	1.09 - 1.34	1.16 - 1.25	1.18 - 1.22
	2	0.49 - ∞	0.95 - ∞	1.35 - 3.90	1.71 - 2.42	1.88 - 2.14	1.94 - 2.06
	3	0.54 - ∞	1.13 - ∞	1.70 - 11.4	2.38 - 4.10	2.73 - 3.34	2.87 - 3.14
	5	0.58 - ∞	1.33 - ∞	2.30 - ∞	3.50 - 9.00	4.30 - 6.00	4.65 - 5.40
	10	0.61 - ∞	1.53 - ∞	2.90 - ∞	5.30 - 92.0	7.40 - 15.3	8.70 - 11.8
	∞	0.65 - ∞	1.80 - ∞	4.00 - ∞	11.20 - ∞	28.00 - ∞	64.00 - ∞
16	1	0.32 - ∞	0.56 - 4.60	0.75 - 1.52	0.89 - 1.14	0.96 - 1.05	0.98 - 1.02
	1.2	0.33 - ∞	0.62 - 21.0	0.85 - 2.04	1.05 - 1.40	1.14 - 1.27	1.17 - 1.23
	2	0.37 - ∞	0.78 - ∞	1.18 - 6.60	1.61 - 2.65	1.83 - 2.21	1.92 - 2.08
	3	0.40 - ∞	0.89 - ∞	1.47 - ∞	2.18 - 4.80	2.62 - 3.50	2.82 - 3.20
	5	0.42 - ∞	1.01 - ∞	1.81 - ∞	3.10 - 13.6	4.00 - 6.60	4.50 - 5.60
	10	0.44 - ∞	1.12 - ∞	2.21 - ∞	4.40 - ∞	6.70 - 19.8	8.20 - 12.8
	∞	0.46 - ∞	1.26 - ∞	2.82 - ∞	7.80 - ∞	20.00 - ∞	45.00 - ∞
45	1	0.15 - ∞	0.32 - ∞	0.52 - 19.0	0.76 - 1.49	0.89 - 1.14	0.95 - 1.05
	1.2	0.15 - ∞	0.34 - ∞	0.57 - ∞	0.86 - 2.00	1.05 - 1.41	1.13 - 1.28
	2	0.16 - ∞	0.38 - ∞	0.69 - ∞	1.20 - 6.30	1.59 - 2.70	1.80 - 2.25
	3	0.16 - ∞	0.41 - ∞	0.78 - ∞	1.48 - ∞	2.15 - 5.00	2.56 - 3.63
	5	0.16 - ∞	0.43 - ∞	0.87 - ∞	1.84 - ∞	3.00 - 15.4	3.87 - 7.10
	10	0.17 - ∞	0.45 - ∞	0.94 - ∞	2.24 - ∞	4.30 - ∞	6.30 - 25.0
	∞	0.17 - ∞	0.46 - ∞	1.04 - ∞	2.87 - ∞	7.30 - ∞	16.40 - ∞



# MOVEXOOM 10 sound mos electronic

## Technical Data

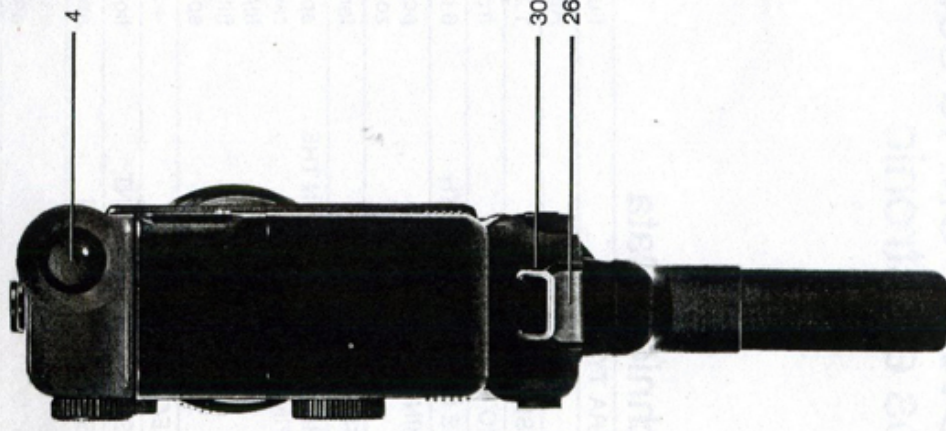
CAMERA TYPE	Fully automatic super-8 reflex camera
LENS	Agfa Variostar 1 : 1.8 (15-element) M 62 x 0.75
FOCUSING	1.20 m to $\infty$
MACRO RANGE	front element of the lens up to 1.20 m
RANGE OF FOCAL LENGTH	6 to 60 mm (10 x magnification)
ZOOMING	power control with two power zoom speeds, manual control by means of knurled zooming wheel at lens
VIEWFINDER	large, bright reflex finder, scale of reproduction 1 : 1 at a focal length of 11 mm
INFORMATION SIGNALS IN THE VIEWFINDER	aperture scale with pointer red warning panel for underexposure film speed indicator filter signal (red) artificial light setting (3400° Kelvin) split image range finder
EYEPiece ADJUSTMENT	+2 to -4 diopters
EXPOSURE MEASUREMENT	light measurement through the lens (TTA) fully automatic control
EXPOSURE CORRECTION	approx. 0.66 light steps = 2 DIN with fully automatic exposure control (backlight)
FILM SPEED SENSING BY CASSETTE	daylight 15 DIN / 25 ASA and 21 DIN / 100 ASA artificial light 17 DIN / 40 ASA and 23 DIN / 160 ASA



# Technical Data

FILTER SENSING FOR UNIVERSAL CARTRIDGE	universal film 23 DIN / 160 ASA filter is moved out fully automatically
ARTIFICIAL LIGHT SHOTS	slide for artificial light setting bush for mounting bracket
POWER SUPPLY DRIVE	9 V, battery compartment for 6 Mignon cells, 1.5 each (Varta 7244, Mallory MN 1500, Union Carbide E 91) or 6 Ni Cd accumulators (Varta DEAC 451 RS/SAFT VB 0.5 AA) can be charged with normal battery chargers
POWER SUPPLY AMPLIFIER	Separate power supply by way of 9 V battery Check capacity of amplifier battery with light-emitting diode 9 V batteries in camera rear section, e. g. Varta Super 438 or Mallory MN 1604
DRIVE	dc motor with tacho-alternator, rotational speed controlled,
RECORDING UNIT	dc motor with tacho-alternator, rotational speed controlled
FILMING SPEEDS	(silent) 9, 18, 24 frames/sec. 54 frames/sec. by additionally pressing key "54" following camera release (sound) 18 + 24 frames/sec.
EXPOSURE TIMES	at 9 f.p.s. = 1/18 sec., at 18 f.p.s. = 1/36 sec., at 24 f.p.s. = 1/48 sec., at 54 f.p.s. = 1/108 sec.
RELEASE	at handle for speeds 9, 18, 24 f.p.s. and for single-frame control at 54 f.p.s. press key "54" in addition
SPECIAL EFFECTS	release by pressing shutter release or cable release or remote control
LAP DISSOLVE	fully automatic lap dissolve function by release button (silent film)
SOUND FADE-IN/OUT	by release button (sound film) position of trick key on:
SINGLE FRAME	$\overline{1}$ = 1 frame
AUTOMATIC TITLING	$\overline{4}$ = 4 frames at an interval of approx. 0.4 sec.
TIMER	0.3 sec. $\overline{1}$ = single frame at an interval of approx. 0.3 sec.
	1 sec. $\overline{1}$ = single frame at an interval of approx. 1 sec.
	60 sec. $\overline{1}$ = single frame at an interval of approx. 60 sec.
SELF TIMER	V 10 + 5 = after 10 seconds of inaudible (electronic) delayed action the camera automatically films a scene for 5 sec.
	V 10 + 10 = after 10 seconds of inaudible (electronic) delayed action the camera automatically films a scene of 10 sec.
FADE IN/OUT	with stop setting lever
FIXED STOP POSITION	with aperture setting switch
APERTURE SETTING (MANUAL)	with aperture setting switch and stop setting lever
CABLE RELEASE AND REMOTE CONTROL	bush for connecting cable release socket for connecting an electric remote control
CONNECTION OF A FLASH UNIT	socket for connecting the flash cord (electronic flash unit or flashgun)
MICROPHONE CONNECTION	socket for connecting the directional Agfa microphone
EARPHONE CONNECTION	socket for connecting an earphone or headphone
RADIO SUPPRESSION	in accordance with VDE 0875
WEIGHT	1800 grams without batteries, 2000 grams with batteries
DIMENSIONS (including handle)	width 61 mm, length 255 mm, height 235 mm
RECORDING UNIT	Integrated recording unit for Super-8 sound cassettes (e. g. Agfachrome sound)
SPACE SOUND/PICTURE	18 frames according to DIN 15881
SOUND RECORDING	at 18 and 24 f.p.s. No clicking noise when you start and stop recording Soft fade-in/out of sound with camera release while shooting
EVEN SPEED	$\leq 0.6\%$
AMPLIFIER	making use of modern modular circuitry comprising 5 transistors 2 integrated circuits 1 Zener diode 2 diodes
FREQUENCY BAND WIDTH	40 Hz to 15,000 Hz
AUTOMATIC MODULATION	including protection against overloading: 1 : 1,000
DISTORTION FACTOR	at maximum volume $\leq 0.8\%$
SIGNAL/NOISE RATIO	35 dB
SUPPLEMENTARY MAGNETISATION	HF approx. 35,000 Hz
MICROPHONE INPUT	input sensitivity 0.1 mV input voltage range 0.1—100 mV
DIRECT RE-RECORDINGS	from other sound sources with corresponding adapter (radio, tape, record)
OUTPUT HEADPHONE	800 $\Omega$ to 5,000 $\Omega$
LISTENING IN	before and after the recording with your headphone
MICROPHONE	Microphone (about 500 $\Omega$ ) has cardioid characteristic, switch for reducing the input sensitivity by about 10 dB





- 1 locking key for opening the cassette compartment cover
- 2 film supply indicator
- 3 film window
- 4 large image reflex viewfinder
- 5 knurled knob for adjusting viewfinder eyepiece
- 6 main switch
- 7 switch for setting the filming speed
- 8 shutter release for slow motion
- 9 manual aperture setting switch
- 10 focusing wheel
- 11 white figures = meters, green figures = feet
- 12 power zooming
- 13 wide angle, telephoto range
- 14 zooming wheel
- 15 release button for macro range
- 16 special effects program switch for delayed action release, timer, single frame operation
- 17 light-emitting diode for speed control
- 18 release button with integrated automatic lap dissolve (silent film cassette)
- 19 with sound fade-out/in (sound film cassette)
- 20 socket for mike cable
- 21 socket for ear-or headphones
- 22 change-over switch for mike input sensitivity
- 23 filter slide for daylight and artificial light
- 24 socket for flash unit sync cord
- 25 bush for cable release
- 26 socket for electrical remote control
- 27 serial number and radio suppression symbol
- 28 battery check with LED
- 29 handle release
- 30 battery compartment for 6 Mignon cells 1.5 V each in handle (driving batteries)
- 31 rear cover of battery compartment for 9-V amplifier battery
- 32 tripod bush
- 33 lug for fastening wrist strap
- 34 film plane mark
- 35 microphone holder
- 36 wind shield

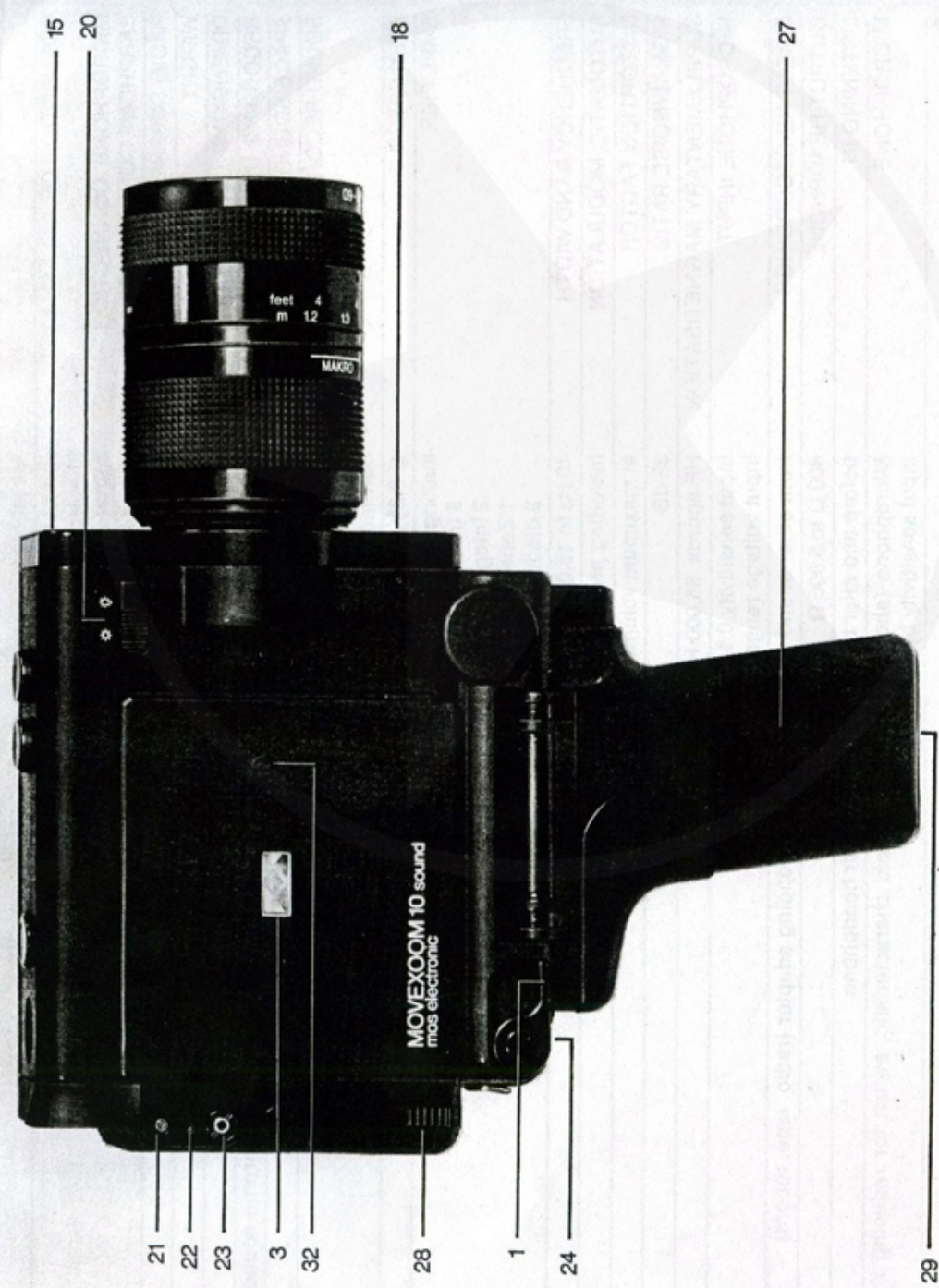
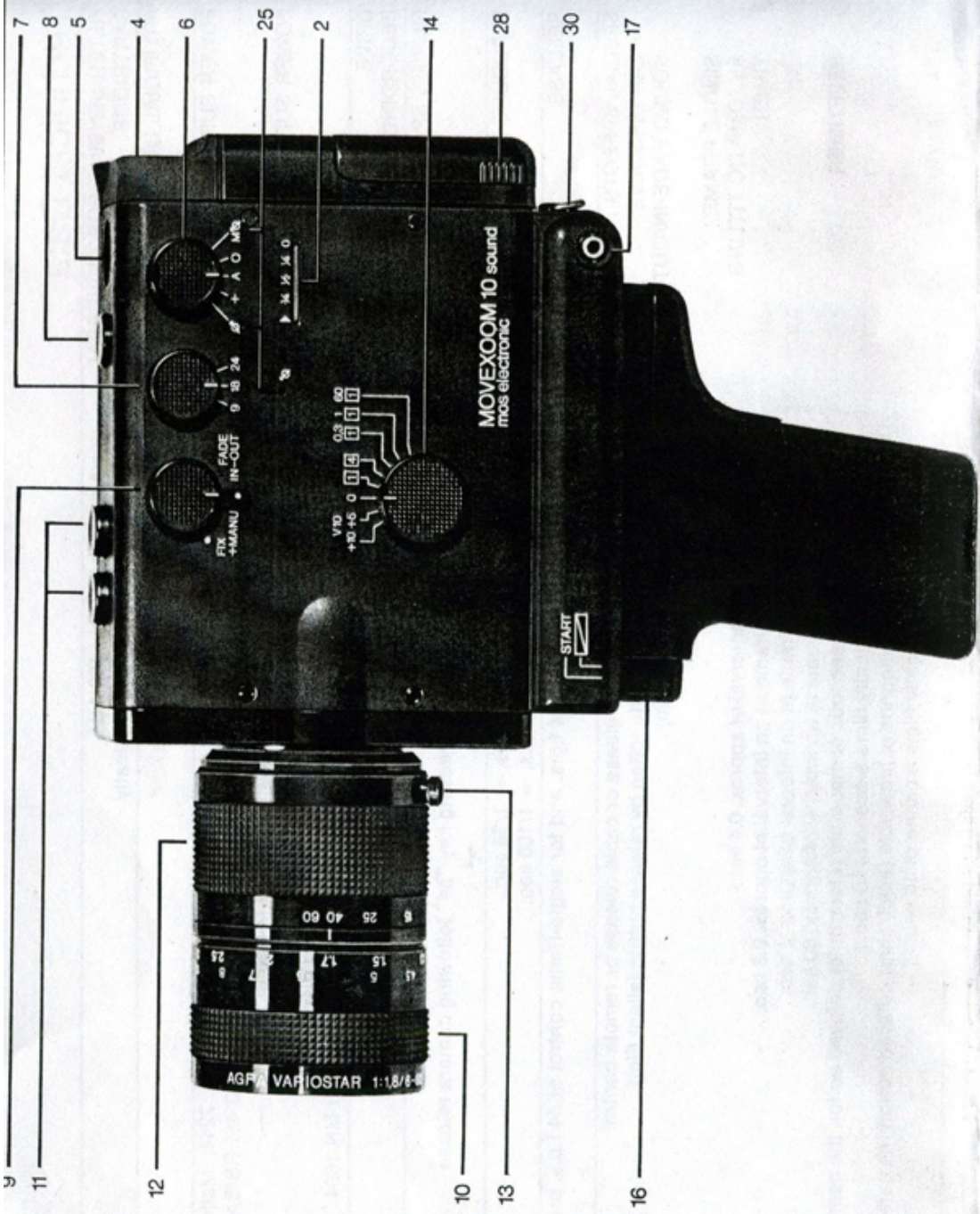


34

33

19







**Wichtig:**

Schalten Sie bei Nichtgebrauch der Kamera in jedem Fall die Stromversorgung mit Hauptschalter aus! Andernfalls werden die Batterien durch den Eigenverbrauch der Elektronik entladen!

**Note:**

Make sure to switch off the power supply whenever you lay the camera aside for a while. Otherwise the electronics of the camera will drain the batteries within short.

**Important:**

Dans le cas de non utilisation de la caméra, indispensable de débrancher la caméra à l'interrupteur principal! Le cas échéant, les piles se déchargeraient par concomitance de l'électronique!

**Importante:**

Non usando la cinepresa disinserisca sempre l'alimentazione di corrente con l'interruttore principale. Altrimenti le batterie vengono scaricate dal consumo proprio dell'elettronica.

**Importante:**

Al no usar la cámara, desconectar siempre el suministro de corriente mediante el interruptor principal. De no hacerlo se irán descargando las baterías por el consumo propio del equipo electrónico.



### **Belangrijk:**

Schakelt u in ieder geval de stroomvoorziening met de hoofdschakelaar uit, als de camera niet wordt gebruikt. Anders raken de batterijen uitgeput door het eigen gebruik van de elektronische componenten.

### **Viktigt:**

Når kameræt ikke anvendes skal strømforsyningen afbrydes, da batterierne ellers vil blive opbrugt af kamera elektronikkens hvilestrøm.

### **Observera:**

Stäng av huvudströmbrytaren, när ni inte använder er kamera. Ni undviker på detta sätt urladdning hos batterierna.