

FILM-TECH

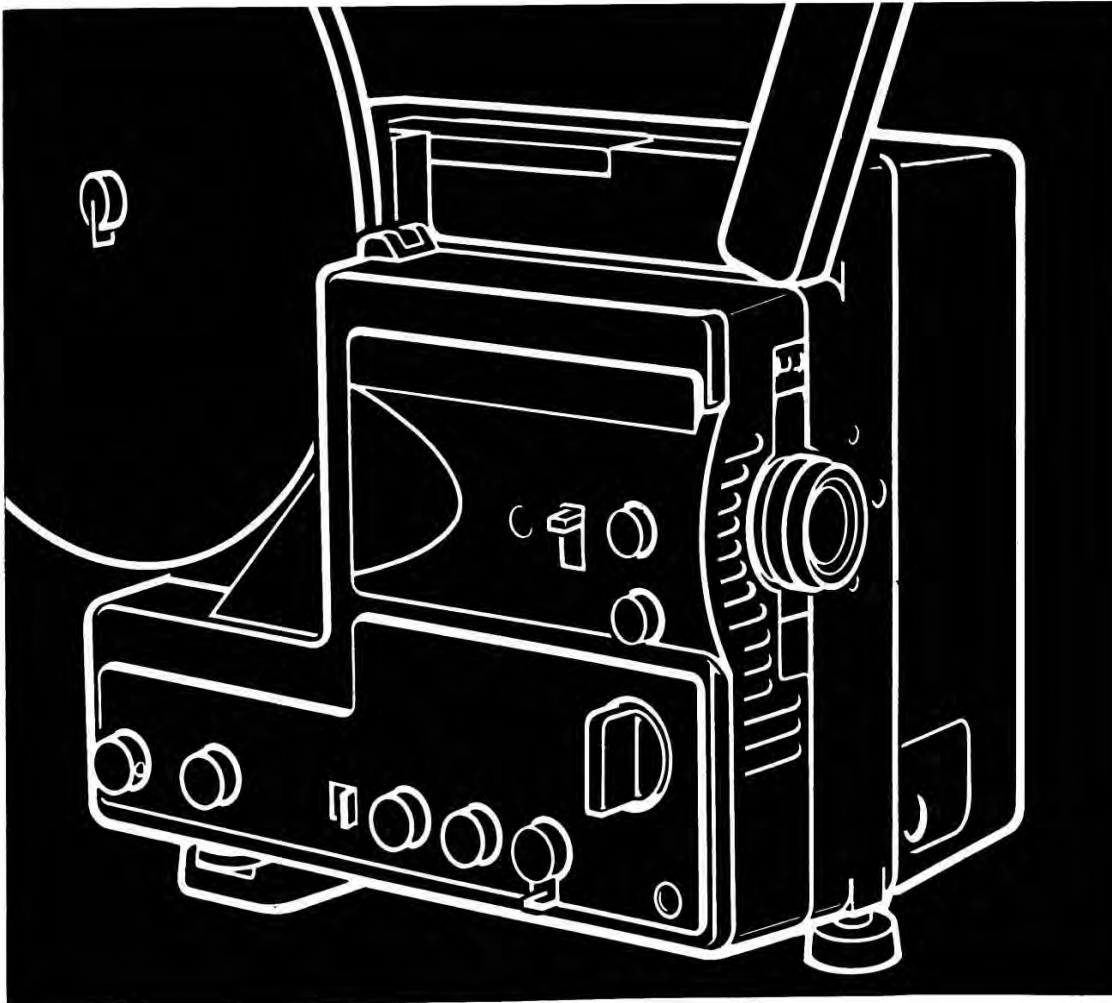
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eumig[®]

S 932

Instructions for use

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Items supplied with the projector:

- 1 Microphone
- 1 Mains supply lead
- 1 AS 21 universal film reel (can be used as automatic take-up and library reel), Order No. 596.0270/3
- 1 Film trimmer
- 1 Reel holder (fits compartment 16 in the back cover)

Special accessories available as optional extras:

- Folding case
- Daylight viewer
- Re-recording lead
- Film reels
- Music and special effects record or cassette (see pages 24 and 25)

This product is manufactured to comply with the Radio Interference Requirements of EEC Directive 76/889/EEC.

IMPORTANT SAFEGUARDS

When using your projector, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions.
2. Close supervision is necessary when any appliance is used by or near children. Do not leave appliance unattended while in use.
3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged — until it has been examined by a qualified serviceman.
5. Do not let cord hang over edge of table or counter or touch hot surfaces.
6. If an extension cord is necessary, a cord with a suitable current rating should be used. Cords rated for less amperage than the appliance may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
7. Always unplug appliance from electrical outlet when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.
8. Let appliance cool completely before putting away. Loop cord loosely around appliance when storing.
9. To protect against electrical shock hazards, do not immerse this appliance in water or other liquids.
10. To avoid electrical shock hazard, do not disassemble this appliance, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock hazard when the appliance is used subsequently.

SAVE THESE INSTRUCTIONS

This apparatus must be earthed.

The equipment should be disconnected from the mains when not in use.

Live parts inside – disconnect from mains before removing the cover.


Important: When operating the projector, do not obstruct the air stream emerging from the ventilation slots.

VALID FOR UK ONLY!

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:

Green-and-yellow:	Earth
Blue:	Neutral
Brown:	Live

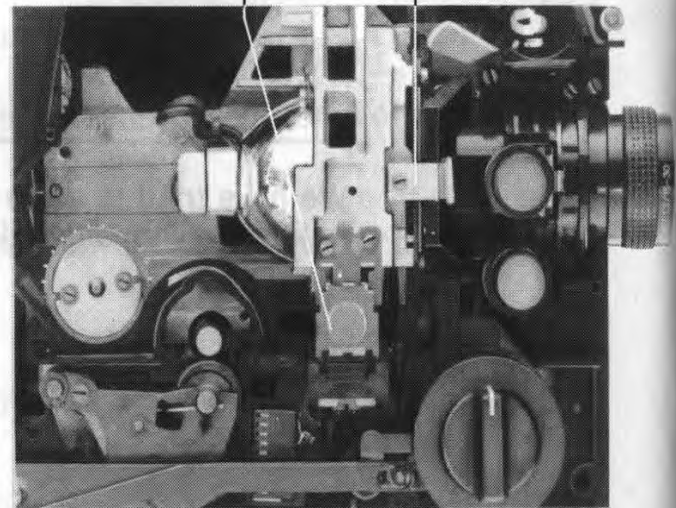
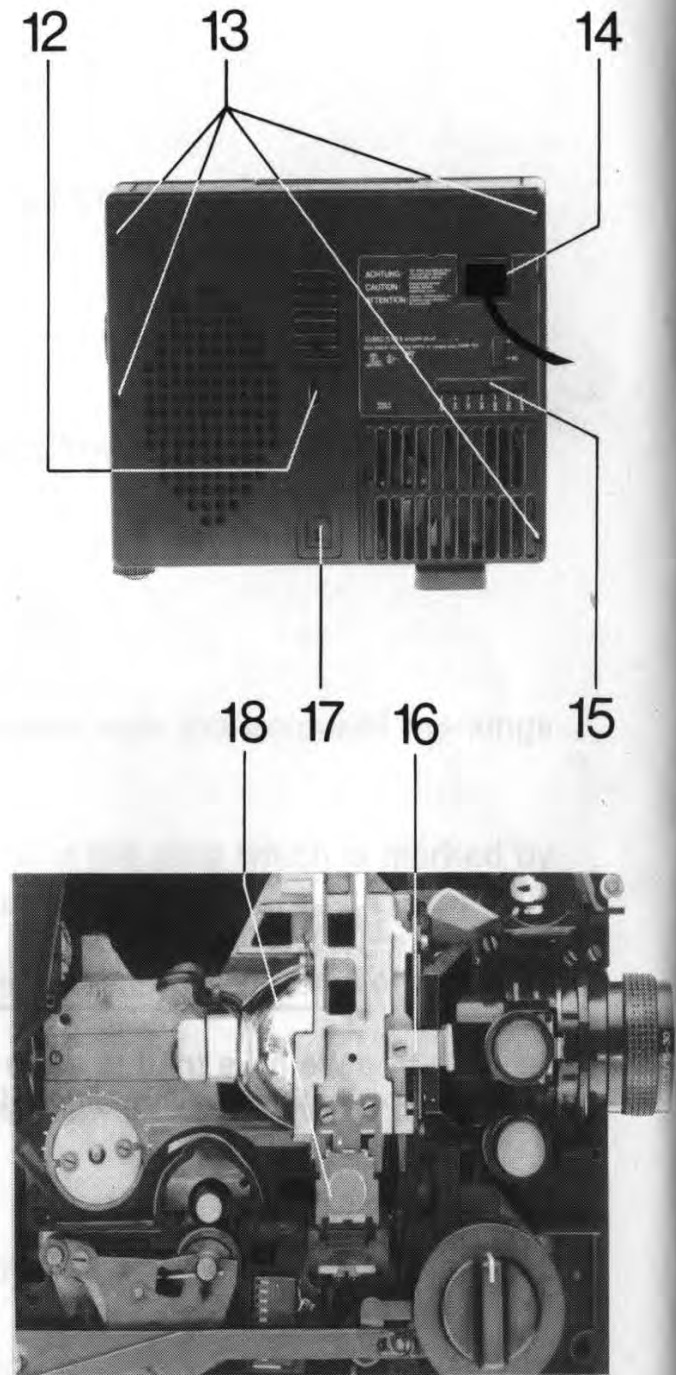
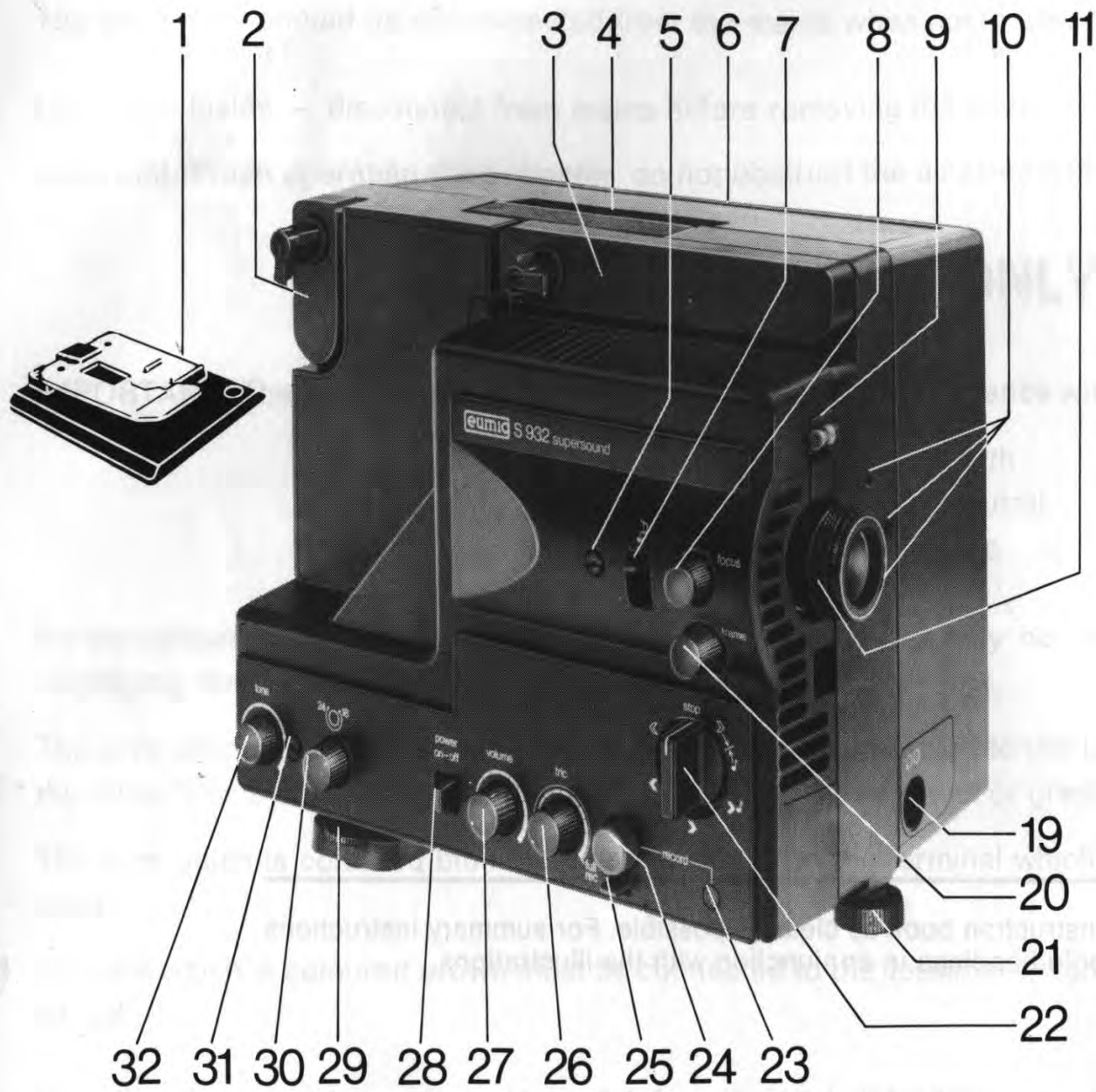
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

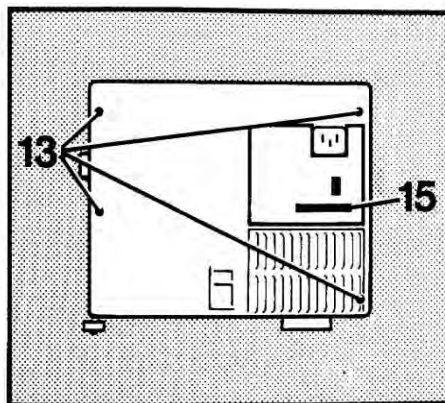
The apparatus must be protected by a 3 A fuse if a 13 A (BS 1363) or another type of fused plug is used.



Description of the projector

- 1 Film trimmer
- 2 Rear reel arm
- 3 Front reel arm
- 4 Extending carrying handle
- 5 Front cover fixing screw
- 6 Swing-open lid of storage compartment for mains lead etc.
- 7 Film loop restoring key
- 8 Focusing knob
- 9 Threading slot
- 10 Mounting holes for daylight viewer (optional extra)
- 11 Zooming ring on lens
- 12 Compartment for reel holder
- 13 Back cover fixing screws
- 14 Mains lead
- 15 Voltage selector window
- 16 Film pressure pad lock
- 17 External speaker socket
- 18 Sound head pressure pad key
- 19 Phono/tape/microphone input socket
- 20 Frame line correction
- 21 Levelling adjustment
- 22 Rotary selector switch
- 23 Recording indicator
- 24 Recording key "record"
- 25 Release lever of recording key
- 26 Mixing control "tric"
- 27 Volume control "volume"
- 28 Mains switch
- 29 Lateral levelling control
- 30 Running speed adjustment
- 31 Front cover fixing screw
- 32 Tone control "tone"

Before switching on

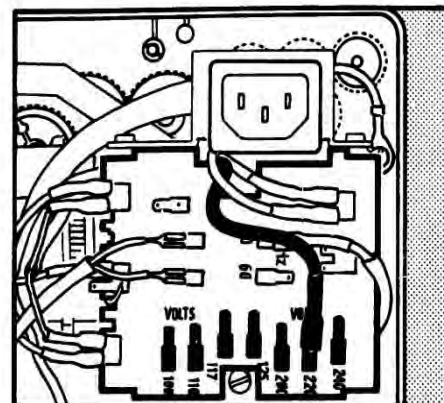


Checking the voltage

Check that your projector's mains voltage and frequency specifications match the values on your mains supply meter. The voltage setting of the projector is indicated on the data panel or visible in the window (15). If the voltage setting does not match your mains supply, ask your movie dealer or an authorised servicing centre to adjust it.

For the servicing engineer:

Unscrew the fixing screws (13) and remove the back. **Take care not to damage the loudspeaker lead between the back and the projector.**



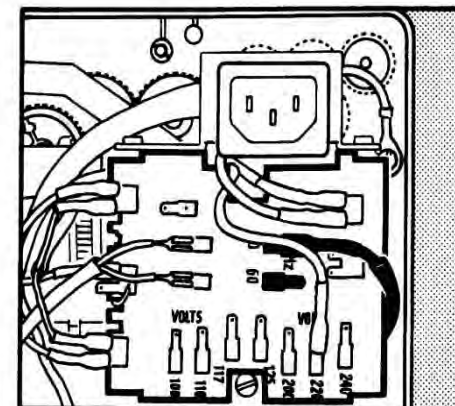
Changing the voltage

Only for the specialist

Pull off the red plug from above and attach it to the appropriate terminal.

Note:

If local mains voltage fluctuations cause premature projection lamp failure, we recommend that you switch to the next higher voltage setting where feasible (for instance 230 instead of 220 volts). This extends the burning life of the lamp with a slight reduction in light output.



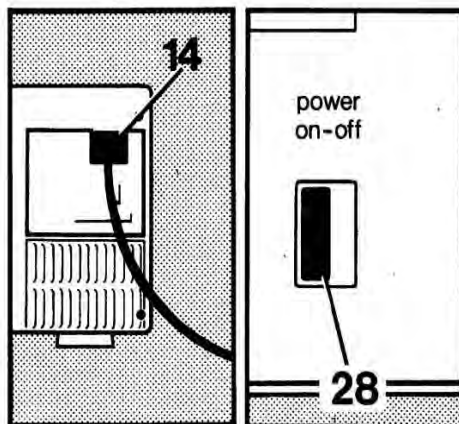
Changing the supply frequency

Only for the specialist

Seek the advice of an expert if required.

A version of this projector is available with a frequency adjustment for countries with different supply frequencies. Changing the frequency involves refitting the drive belt and switching the transformer plug to the appropriate terminal for 50 or 60 Hz. Get one of our servicing centres to do this for you.

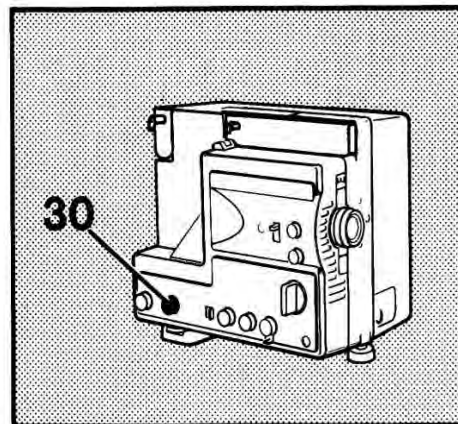
Putting on the show



Connecting to the mains supply

Plug the mains lead (14) of the projector into a mains supply socket. Push the mains switch (28) to the left to ON.*

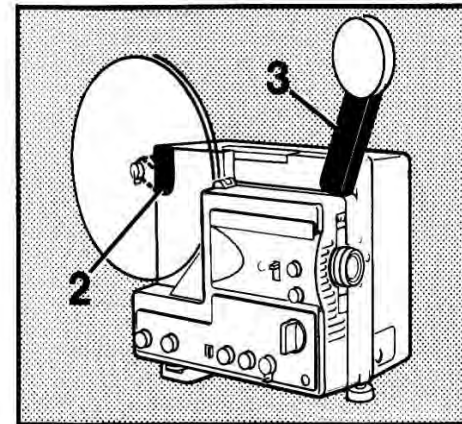
This switches on the projector. The motor starts and the projection lamp is pre-heated.



Setting the running speed

To set the running speed – 18 or 24 frames per second or any intermediate value – turn the knob (30) to the appropriate position.

The running speed may be changed even during projection.



Fitting the reels

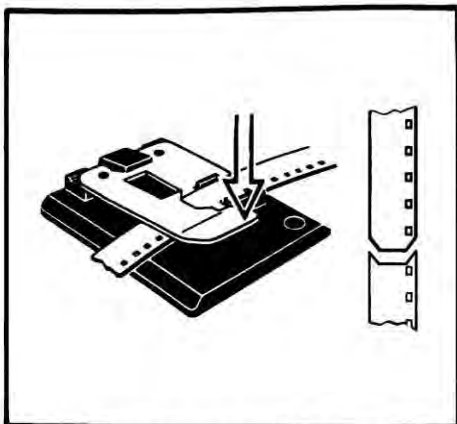
Swing up the front reel arm (3) and place the full reel on its shaft so that the film runs off the reel clockwise towards the front. Turn over the reel lock.

Place the empty reel supplied on the shaft of the rear reel arm (2). This holds up to 180 m (600 feet) film. If you are using a 240 m (800 feet) reel, swing up the rear reel arm before fitting the reel. Turn over the rear reel lock.

Note: When you are looking from the rear of the projector towards the screen, the perforations must be at the right.

* The mains switch and rotary selector switch (22) are interlocked: you can only turn the selector switch when the mains switch is ON and you can only switch on the mains switch when the rotary selector switch is at STOP.

Important: When running the projector do not obstruct the air stream through the ventilating slots.

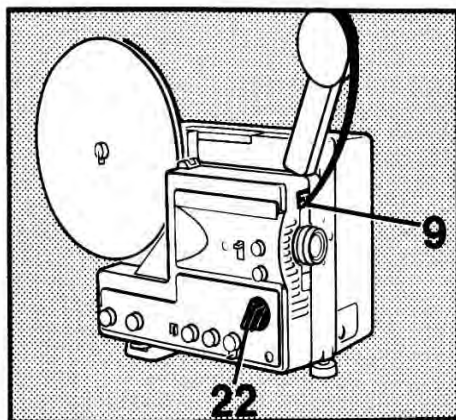


Trimming the film leader

Check the state of the film leader. It must be free from kinks and creases, curl clockwise and have a cleanly trimmed end.

Use the film trimmer supplied to trim the film end as follows: push the film into the trimmer so as to engage a perforation hole in the tooth of the film guide, then push down the trimming lever (see arrow).

If you peel off the protective film, you can stick the film trimmer to any convenient spot on the projector.

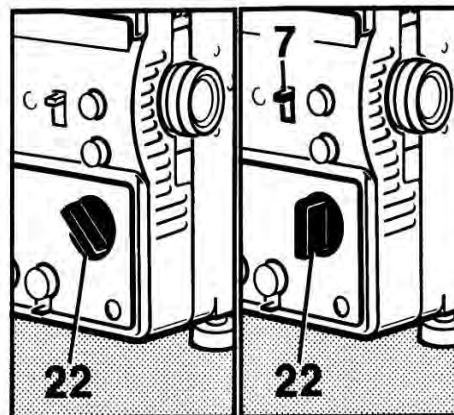


Threading

Turn the rotary selector switch (22) from the "Stop" position to the threading position \gg . (You cannot thread the film if you have not turned the selector via "Stop".) Push the film leader into the threading slot (9) until the mechanism seizes the film. Threading then proceeds automatically through to the take up reel.

Note: Thin-base films may not always attach themselves automatically to the take-up reel. In that case guide the beginning of the film into the reel core by hand.

If the film is not correctly advanced during threading (for instance due to a badly trimmed film end) the film emerges from an opening below the lens to avoid damage. In that case turn the rotary selector switch (22) to reverse \ll , retrim the film and repeat the threading procedure.



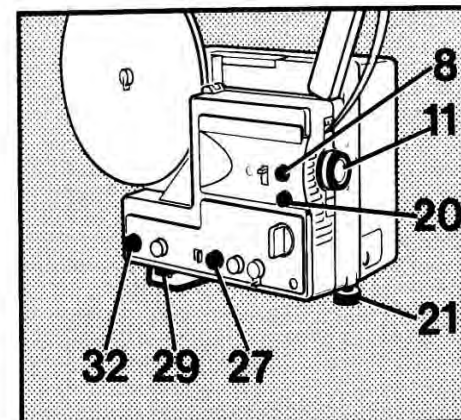
Projection

As soon as the film runs onto the take-up reel, turn the rotary selector switch (22) further:

- to \gg for sound projection of sound films;
- to \gg for silent projection of silent films - to project the sound head.

Note: If the image jitters or the film rattles (or both) during projection, briefly press the loop restoring key (7).

The likely cause might be a faulty splice or damaged perforation holes.



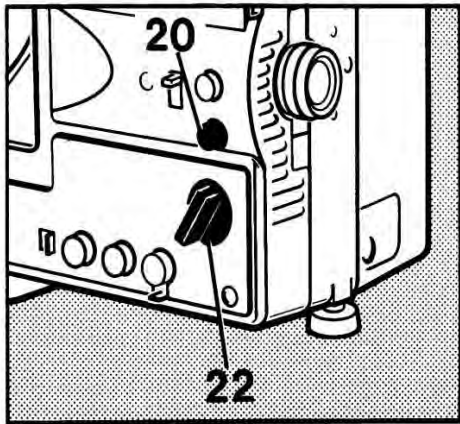
Adjust the **projected image size** with the zooming ring (11) on the lens.

Focus the image with the focusing knob (8).

If the **frame line** between frames appears on the screen, adjust the frame line control (20) until the line disappears.

Adjust the **image height** and **level** the projector with the milled controls (21, 29).

Adjust the **sound volume** when projecting sound film with the volume control (27) and the **tone** with the tone control (32).



Reverse projection

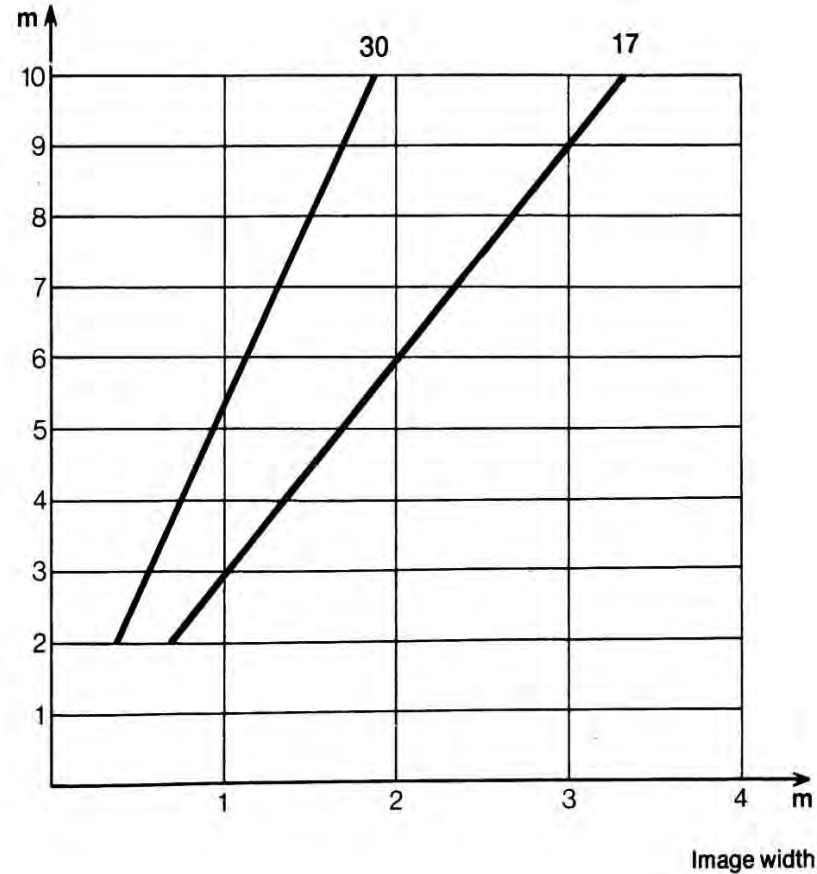
Turn the selector switch (22) – in either direction – to reverse projection ◀ : The film now runs backwards and movement on the screen appears reversed. When changing the running direction you will usually have to correct the frame line setting (20).

You cannot play back sound during reverse projection.

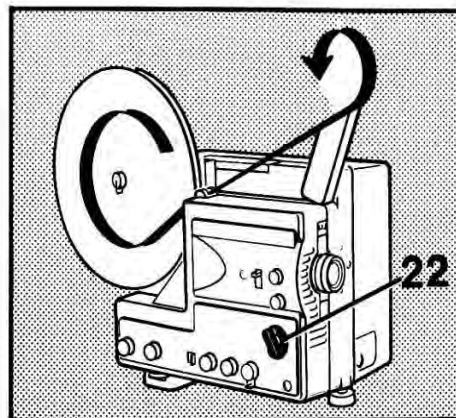
Screen image sizes

This graph shows the relationship between image width, focal length and projection distance for the standard 17–30 mm multicoated Vario-Eupronet f/1.4 lens.

Distance from film plane to projection screen

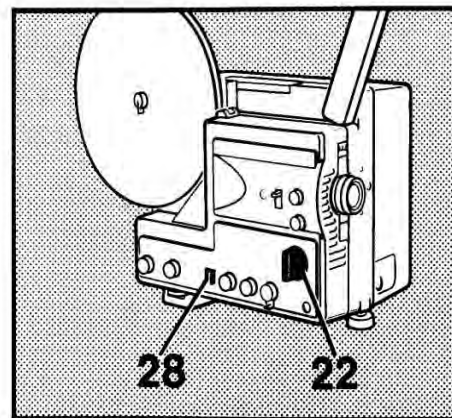


Concluding the show



Rapid rewinding

Once the film has run through, take its end directly to the front reel and attach it to the core. Turn the rotary selector switch (22) to reverse \leftarrow . This now rewinds the film onto the front reel.



Switching off

At the end of every show turn the rotary selector (22) to "stop". Push the mains switch (28) to the right to "off". This switches off the projector*.

* The mains switch and rotary selector switch are interlocked: you can only turn the selector switch when the mains switch is ON and you can only switch off the mains switch when the selector switch is at STOP.

Sound recording

When you receive your films back from the processing laboratory, you will probably want to edit them and assemble the sections with appropriate continuity of subject and action. Successful sound films require not only clean editing but also a high-quality sound stripe (magnetic track) applied to the film.

We specially designed this projector to make sound recording as straightforward as possible — this is therefore largely automated. Your projector has Eumig's proved automatic recording level control which provides all-over optimum sound quality from the start, without volume fluctuations. So you don't have to worry about recording level control. This applies equally to microphone recordings, or to recordings from a record player, tape recorder, cassette recorder etc.

With your projector you can however also mix one recording into another, for instance to add a commentary to a music background. This you do with the aid of the mixing system. This involves recording the music in the normal way and then over-recording the speech during the second run through. The mixing control looks after fading the second recording in and out and it also adjusts the relative level of speech and music. Try it a few times — you will see how easy it all is.

A very useful accessory for all sound recording is the Eumig daylight viewer. We also recommend the Eumig universal re-recording lead for straightforward connection of any one of the various sound sources. These accessories are available as optional extras (see pages 24).

Practical hints

Straightforward and speedy sound recording depends on thorough preparation. Select suitable music and sound effects for your film. Set up a simple recording script.

To make a commentary sound natural, do not read it but speak it casually. (Rehearse it first.)

Commentaries should not repeat what you see on the screen but provide additional information.

Don't change the music for every shot, only where the mood of the picture changes significantly.

Music determines the mood of a shot.

Sound effects provide background and realism to the film.

The sound section controls



Use the **tone control** to adjust the tone quality during playback. The position of the control has no effect on recording.

The volume control (VOLUME)


Use the volume control to set the playback volume during sound projection and the monitoring volume during recording when checking the recording signal level. The position of this control does not affect the recording except with microphone recordings. Here you may get acoustic feedback (whistling), so in this case avoid monitoring with the built-in speaker.

The mixing control (TRIC)

With the mixing control you can mix a further recording during a second recording run and at the same time attenuate the first recording. The mixing control is also used for soft music transitions. With the control turned fully to the left, the first recording is not affected; nor can you in this case monitor during the second recording. The further you turn the control to the

right, the more the first recording is attenuated and the new recording accentuated. If you turn the control fully to the right, the first recording is completely erased.

The recording and erasing key

Before every recording press the red recording key (first raise the lever below it). The red signal lamp (23) lights up. To start recording, turn the rotary selector switch (22) to sound projection . Turning it back to STOP automatically switches over to playback.

A new recording erases any previous recording (except during mixing). If you just want to erase without recording anything fresh, do not plug in any sound source. (If you have accidentally pressed the recording key, briefly turn the selector switch to the left and back to STOP: the recording key then jumps out).



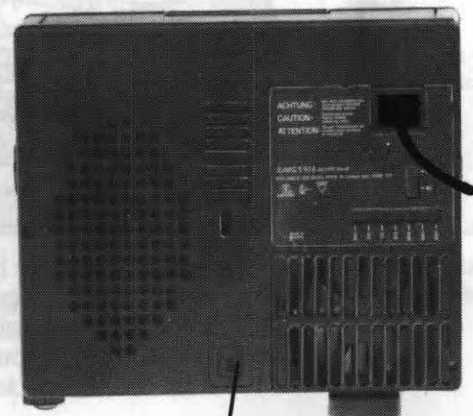
Input

for record player, tape, recorder, microphone etc.

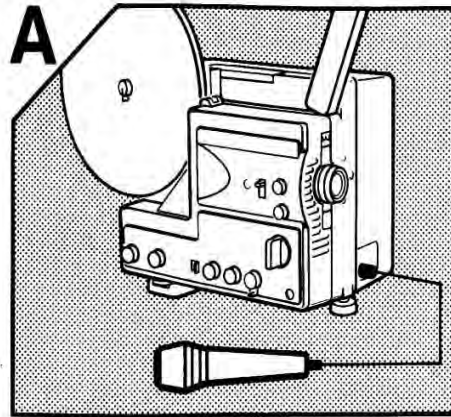
Loudspeaker output socket

Use the loudspeaker output socket to connect an external speaker. If you set this up near the screen you have the sound coming from the front as in a motion picture theatre.

Important: If you connect several speakers in parallel note that the effective speaker impedance must not become less than 4 ohms. (Two 4 ohm speakers wired in parallel yield an impedance of only 2 ohms.)



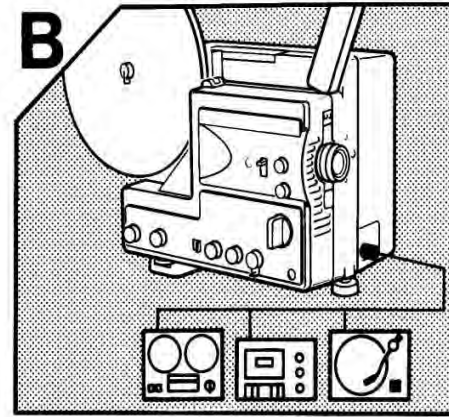
Sound recording methods



Speech

Microphone recording is the simplest and most straightforward way. Use this when you merely want to add a commentary to the film.

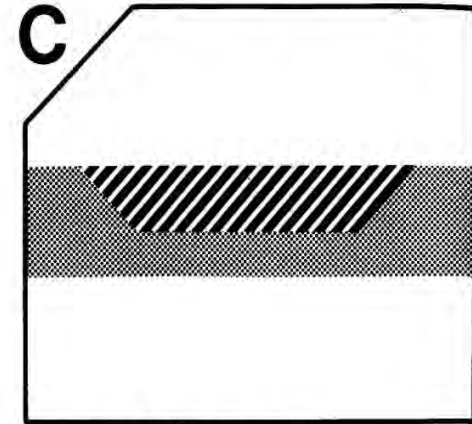
See page 13.



Music

Re-record music directly via a lead from a cassette recorder, record player, tape recorder etc. Music transitions can be soft or abrupt.

See pages 14 15



Manual mixing

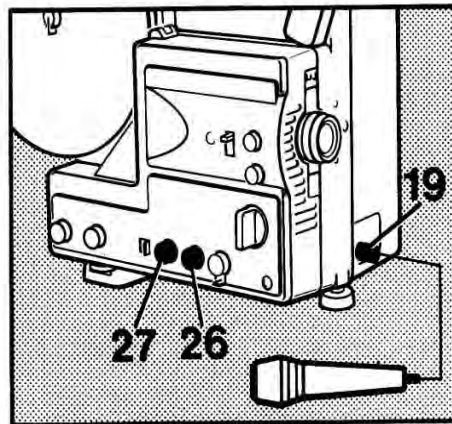
You can mix a second sound recording – during a second run through of the film – into an existing recording. Depending on the mixing control setting, the first recording is then attenuated to a greater or lesser degree. You can also mix in a subsequent commentary.

See page 16, 17.

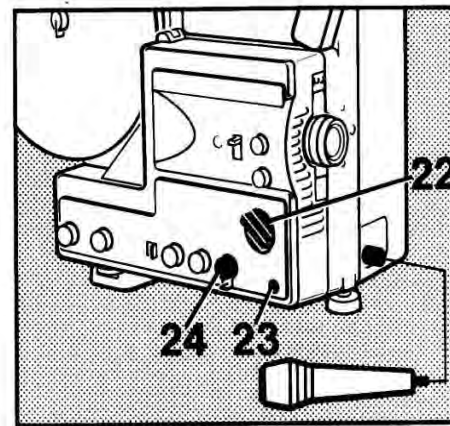
A


Speech

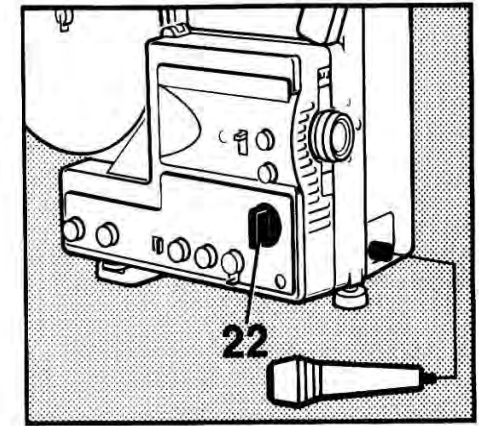
(Microphone recording)



- Plug the microphone into the input socket (19).
- Turn the mixing control (26) fully to the right.
- To avoid acoustic feedback (whistling) between the microphone and the speaker, turn the volume control (27) fully to the left.



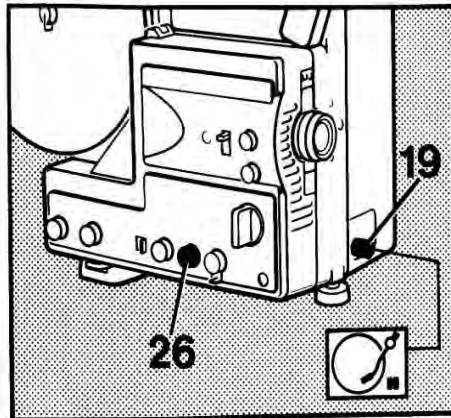
- Press the red recording key (24). The red signal lamp (23) lights up.
- Turn the rotary selector switch (22) fully to forward projection  and speak the text.



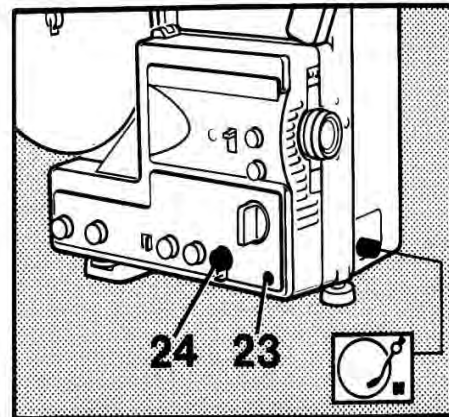
- To conclude the recording turn the selector switch (22) to STOP.

The special automatic gain and frequency control system (AGFC) ensures a correct audio effect even at different distances between the microphone and the sound source.

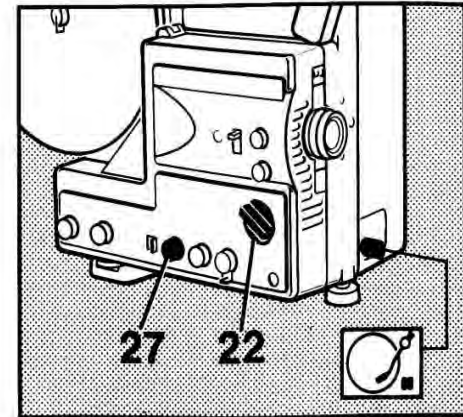
B Music



- Plug the music playback unit (tape recorder, record player etc.) into the input socket.
- Turn the mixing control (26) fully to the right.



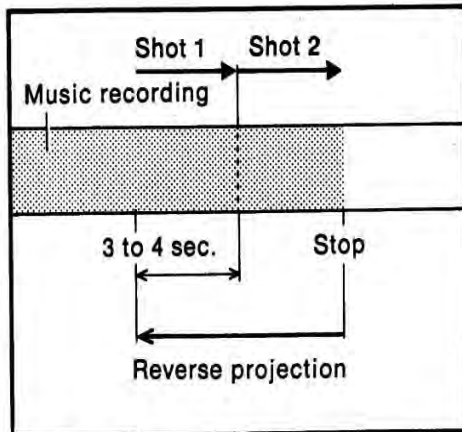
- Press the red recording key (24); the red signal lamp (23) lights up.



- Start the sound playback unit and turn the rotary selector switch (22) fully to forward projection.*

The recording is now running. To monitor the recording via the built-in speaker adjust the volume control (27).

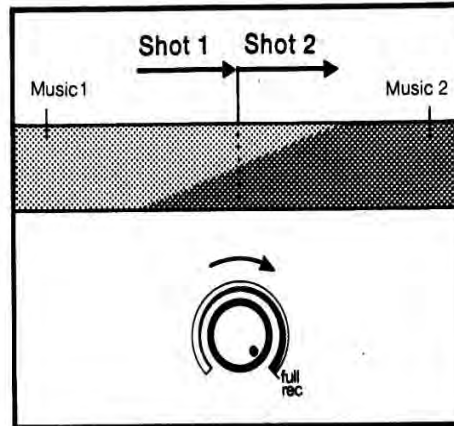
* For sound recordings where you need no projection light, turn the rotary selector switch from ► to ♪. This maintains all running and sound recording functions but switches off the projection lamp to prolong its life. (However do not thread a film after this switching back; for threading you must first turn the selector switch back to STOP.)



Soft music transitions

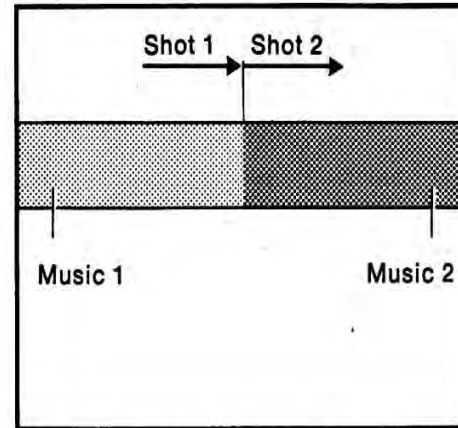
If you want to switch the music with a change of scene, a soft music transition or dissolve is recommended for shots of similar nature.

- First record the music to match shot No. 1
- A few seconds after the picture cut, stop the projector and let it run back about 3-4 seconds past the cut.



- Turn the mixing control (26) fully to the left.
- Start the music playback for the second shot.
- Press the recording key (24) and switch the selector to forward projection ➤.
- Slowly turn the mixing control (26) fully to the right.

This concludes the dissolve procedure. Music No. 1 is now being recorded.



Abrupt music cuts

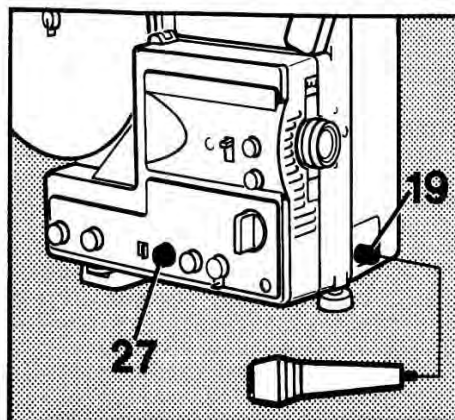
For transitions between radically different shots an abrupt music cut is recommended. In this case the mixing control (26) remains fully turned to the right.

- Stop music recording No. 1 the change of shot.
- Press the red recording key (24).
- Start the sound playback unit and
- Switch the projector to forward projection ➤.

C

Mixing techniques

Superimposing a new recording on an existing recording on the same track.

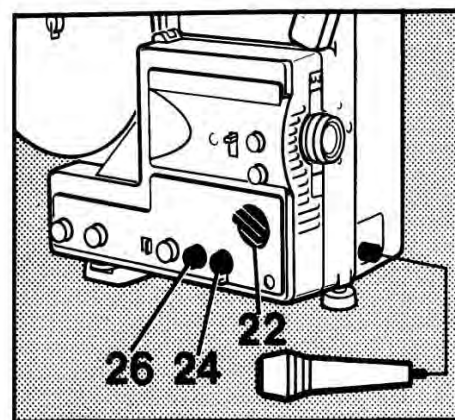


Mixing in speech via the microphone


For sound recordings with music and commentary on the same track first record the music (see page 13). Then record the commentary with the aid of the mixing system during a second run through.

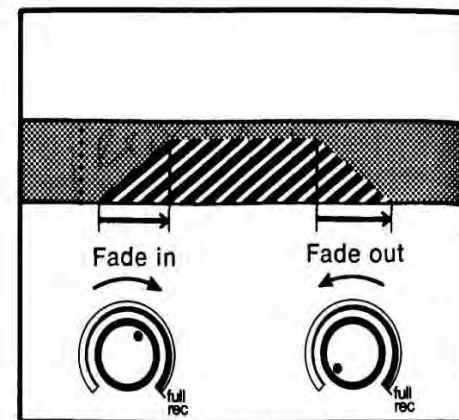
After the music recording:

- Rewind the film and rethread it.
- Plug the microphone into the DQ input socket (19)
- To eliminate any risk of acoustic feedback turn the volume control (27) fully to the left.



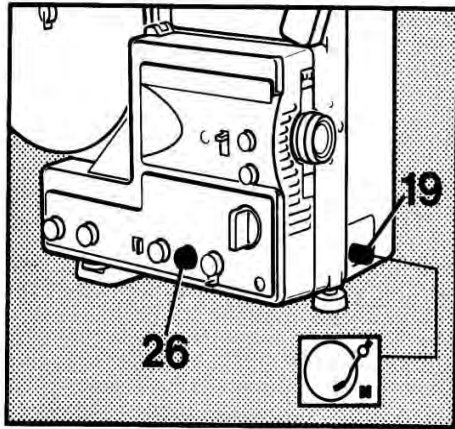
Adjust the mixing control (26) to select the degree of music attenuation and the volume of the mixed-in commentary. This setting is best established by a previous trial. Usually the control should be turned to just before its right-hand stop.

- Press the red recording key (24) and turn the rotary selector switch (22) to sound projection .
- As soon as the scene appears to which you propose to add a commentary, turn the mixing control (26) to the previously established position. That automatically attenuates the first recording.
- Now speak the commentary, then turn the mixing control back to its original position.



This illustrates the mixing function diagrammatically. As long as the mixing control is turned fully to the left, the first recording remains unchanged and unattenuated. The new recording fades in as soon as you start turning the control to the right; the further you turn the control to the right the more the music is attenuated. For fading out turn the mixing control back to the left. This brings the music back to its original level. Turning the rotary selector switch (22) back to STOP cancels the recording standby condition.

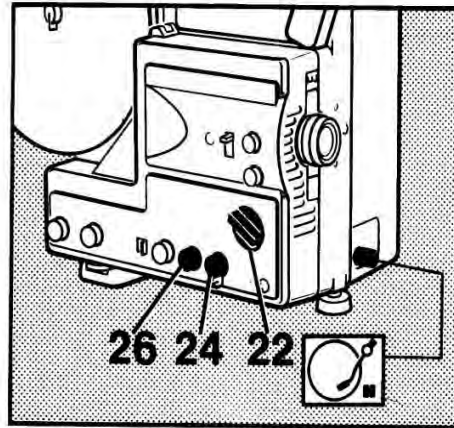
To avoid recording background noises at the beginning of a speech passage, speak a triggering word (e. g. "starting now") into the microphone just before operating the mixing control.




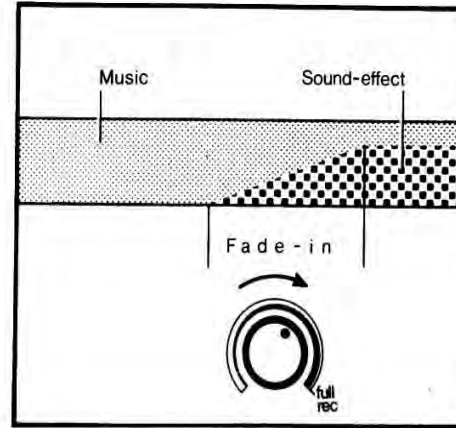
Mixing in music and special effects

After recording the first recording:

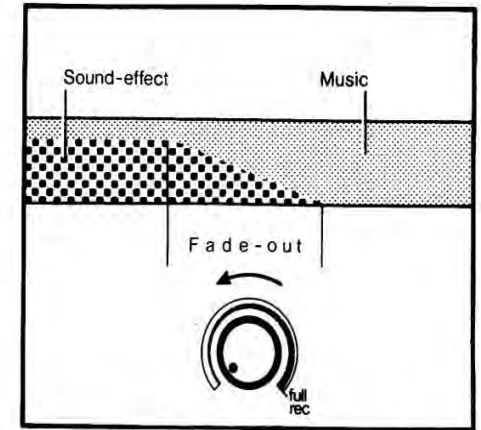
- Rewind and rethread the film.
- Plug the playback unit (record player, tape recorder etc.) into the DQ socket (19).
- Turn the mixing control (26) fully to the left.



- Press the red recording key (24), and
- turn the rotary selector switch (22) to sound recording .
- Start the playback unit either now or as soon as the required shot appears on the screen
- As soon as the appropriate shot appears, turn the mixing control (26) to the right as far as you need it for the relative levels of the first and second recording. (Establish this position beforehand by a trial run.)
- To fade out, turn the mixing control (26) again fully to the left.



Here is the procedure shown diagrammatically: as long as the mixing control is turned fully to the left, the first recording (for instance music) is unaffected. The further you turn the mixing control to the right the more the level of the first recording is attenuated and that of the second recording (for instance special effects) boosted.

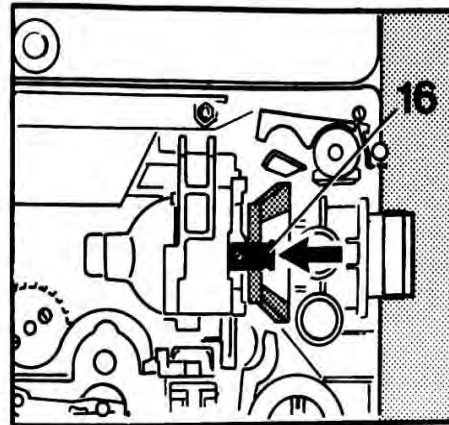


The sequence is similar during fading out which is concluded as soon as the mixing control is turned fully back to the left. To cancel the recording standby condition turn the rotary selector switch (22) back to "stop".

Care of the projector

Your sound movie projector requires little or no maintenance, for all moving parts are permanently lubricated. However, dust and film debris deposits in the film track and the film gate could be a nuisance during projection and also cause score marks on your precious films.

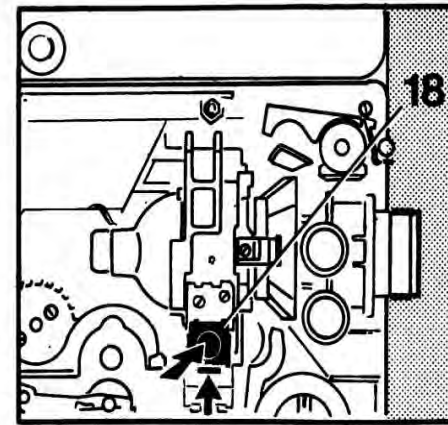
Important: Never touch the rubber linings of the drive wheels (visible to the left of the running speed adjustment when you remove the front cover) with the fingers, as this could cause uneven running. If necessary clean these linings with alcohol.



Cleaning the film track

- **Disconnect the mains plug.**
- Unscrew the fixing screws (5, 31) and remove the front cover.
- Remove the lens (see "cleaning the lens" in next column but one).

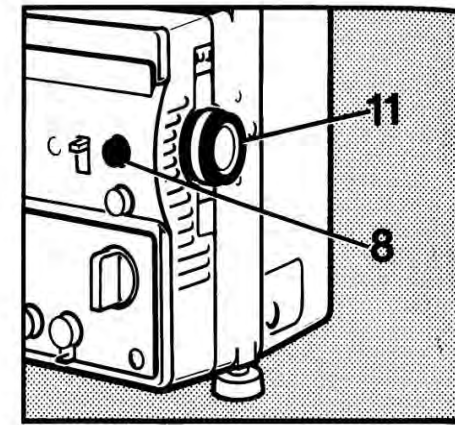
Now press the red key (16) in the direction of the arrow and swing aside the film pressure pad to open the film track. Clean the film gate and track with a soft cloth or camel hair brush; remove caked-on deposits with a matchstick (but never with any metal object).



Removing film residues from the sound head pressure pad

(Never use any metal object)

The sound head pressure pad can be released by lifting and pressing the locking key (18)

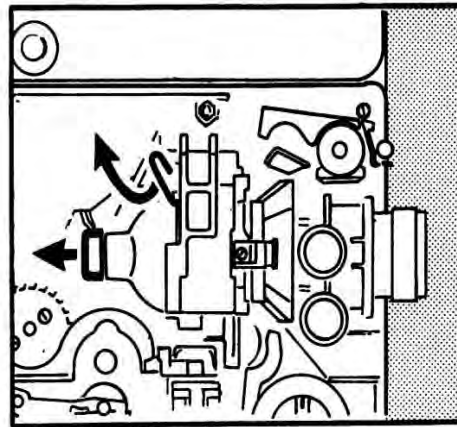


Cleaning the lens

This entails removal of the lens as follows:

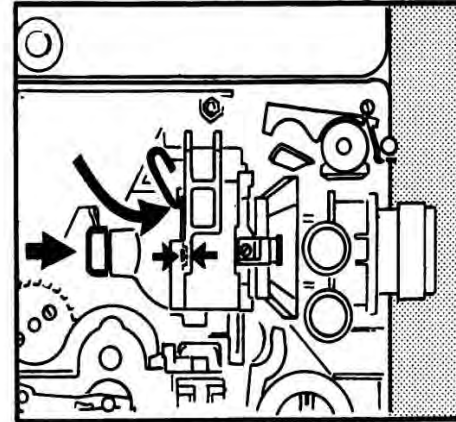
- Turn the focusing knob (8) anticlockwise as far as it will go.
- Press the lens (11) inwards.
- Continue turning the focusing knob anticlockwise.
- Remove the lens.

Clean the lens with a soft cloth or camelhair brush. Before replacing the lens check that the engagement key of the lens faces you and that the focusing knob is engaged. Now push the lens fully into the mount and turn the focusing knob (8) clockwise.

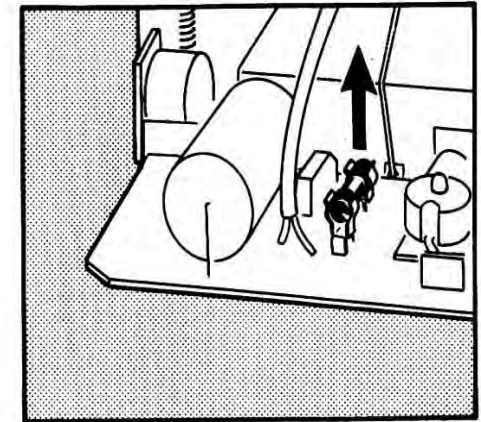


Changing the projection lamp

- Disconnect the mains plug.
- Unscrew the fixing screws (5, 31) and remove the front cover.
- Press down the lamp retaining spring and swing to the left (see illustration).
- Remove the lamp and pull off the lamp fitting.



- Replace with a new 12 volt 100 watt tungsten-halogen lamp with diathermic reflector. When inserting the new lamp take special care never to touch the bulb or inside of the reflector with the bare fingers. (If you accidentally touch these areas, clean with alcohol.)
- Push the lamp fitting over the lamp base.
 - Raise the lamp retaining spring.
 - Locate the lamp in its seating so that the centering key of the lamp engages the notch provided for it (top illustration). Be careful not to pinch the lower spring when doing this.
 - Re-engage the lamp retaining spring at the top.
 - Refit the front cover.



Changing the fuse

Only for the specialist

Seek the advice of an expert if required.

- Disconnect the mains plug.
 - Unscrew the fixing screws of the back (13) and remove the back.
- The fuse is mounted at the left on the amplifier circuit board. Replace by a 1 amp slow-blow 5 x 20 mm cartridge fuse, Order No. 790.0301/1 (for USA: 2.5 amp slow-blow No. 790.0307/2).

The fuse protects the amplifier against overloading, but not the projector against damage when connected to a wrong supply voltage.

General hints

To get the most out of your films for as long as possible treat them from time to time with a film cleaner, available from photo dealers.

Good sound quality of your magnetic sound films depends on the condition of the projector and the sound film itself. So take special care over splices: These must be clean, precise and preferably within the film thickness, for thickness variations can cause audible clicks on playback.

Fully edit and splice your films before you have them striped. That way you avoid noises at the splices.

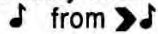
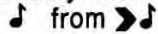

Be sure to use a high-quality stripe for your films, for instance Agfa F 5. Preferably store films protected against dust in film cans. A humidifier in the cans prevents the film from becoming brittle.

To make the most of the sound quality of your projector, use only high-quality playback units for the sound input.

To utilise the full dynamic range of the projector, connect an external speaker and locate it next to or below the screen during the show.

Apparent troubles may have simple causes

Apparent breakdown or failures may often arise from simple operating faults or minor causes. The examples below are to help you to put things right yourself on the spot.

Problem	Cause	Remedy
Unsteady image, rattling noise	Faulty splice or damaged perforation	Briefly press loop restoring key (11)
Image unsteady and unsharp towards one edge	Film pressure pad loose	Push film pressure pad to left to engage red lock (20)
Film won't thread	Rotary selector switch turned to  from 	Turn rotary selector switch to from "stop" position
Film emerges from below lens during threading	Film leader not properly trimmed	Turn rotary selector switch to reverse  , cleanly trim film with film trimmer and repeat threading sequence
Cleanly trimmed film still emerges from below lens	Film debris in sound section blocks film	Clean sound section (see page 20)
Weak or uneven illumination of image	Projection lamp not straight in fitting	When inserting the lamp check that it is correctly located: the centering lug of the lamp must engage the cut-out of the lamp support.
No projection light despite lamp in order	Contact problems in lamp fittings; dirty or oxidised pins	Clean contact pins of lamp by repeatedly pulling off and refitting lamp socket
No sound recording	Mixing control turned fully to left	Turn mixing control (31) to "full rec"
Sound recording too faint	Incorrect polarity of re-recording lead	Use Eumig re-recording lead with correct adaptor or resolder connections on plug
Muffled sound	Sound head pressure pad not closed	Push up the sound head pressure pad to engage key (18).

Technical data

Projector

Film gauge

Super-8, Single-8

Lens

17–30 mm Eumig Vario-Eupronet
f/1.4, multicoated

Lighting system

12 volt 100 watt tungsten-halogen
lamp with diathermic reflector,
preheated to aid sound recording

Running speed

Continuously adjustable from 18
to 24 fps

Special features

Mains switch
Longitudinal and lateral levelling
adjustment
Automatic film threading through
to take-up reel
Provision for mounting daylight
viewer
Milled fine focusing knob
Takes reels up to 240 m (800 feet)

Weight

Approx. 8.5 kg (18.6 lbs)

Size

335 x 199 x 247 mm
(13.2 x 7.8 x 9.7 inches)

Sound section

Amplifier

Combined recording and playback
amplifier
9 transistors, 1 diode, 1 bridge
rectifier, 1 operation amplifier,
1 integrated circuit

Output

2.8 watts rms, 5 watts music

Frequency range

80– 9,000 Hz (18 fps)

Erasure attenuation

Better than 55 dB

Automatic recording level control

AGFC: Automatic gain and
frequency control covers input level
range up to 50 dB (1 : 300);
constant sound effect with micro-
phone recordings irrespective of
speaking distance.

Wow and flutter

Under 0.5%

Signal/noise ratio

Better than 43dB, weighted accor-
ding to DIN 45 405 (main track)

Inputs

Microphone:
0.3–100 mV into 9 K ohms

Pins 1 and 2

Phono:

50 mV to 3 volts into 470 K ohms

Pins 3 and 2

Outputs

External speaker socket, 4–6 ohms

Picture/sound separation

18 frames

Monitoring provision

During recording, adjustable
volume

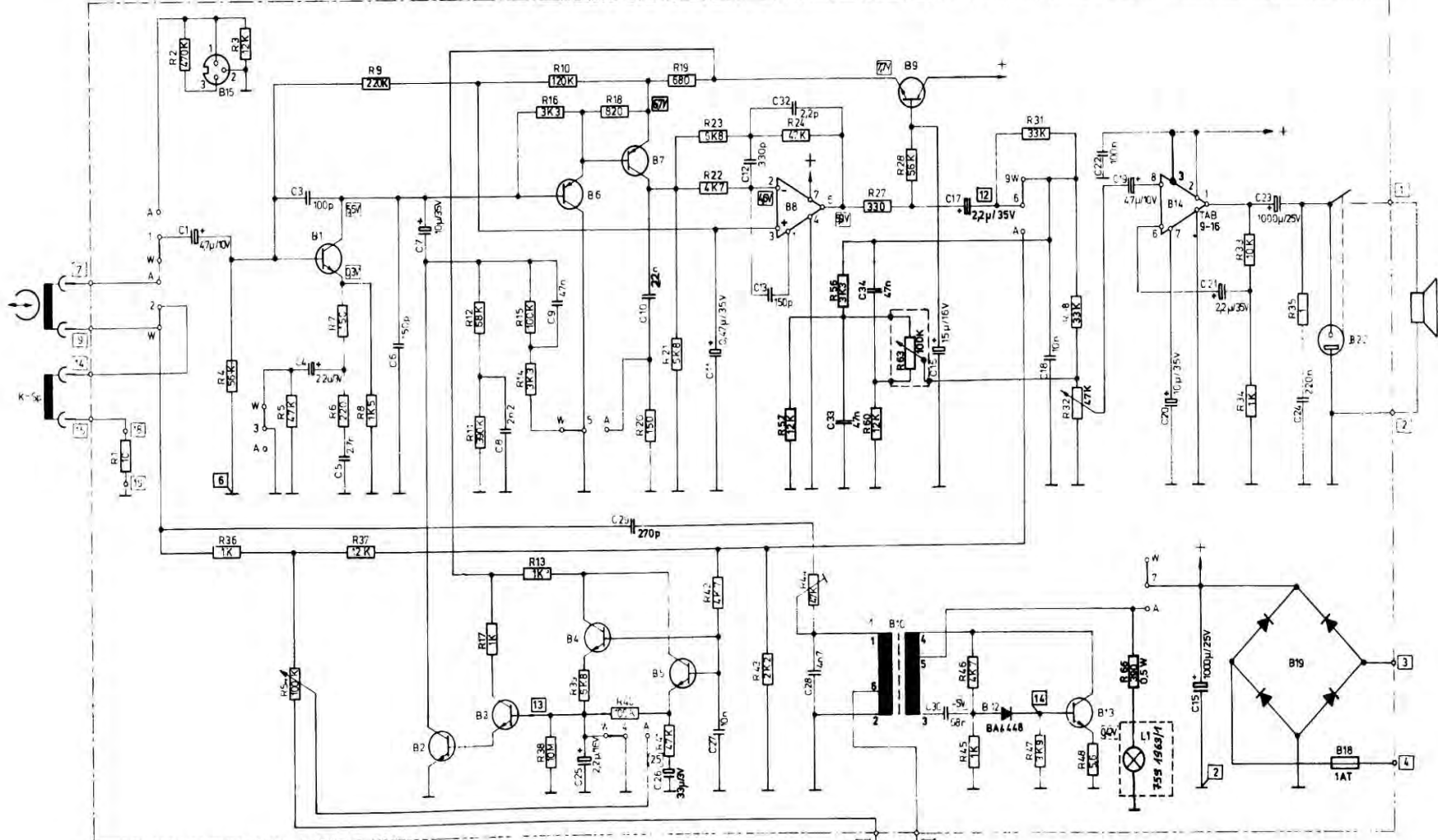
Signal

Red signal lamp for recording

Special features

Tone control, sound recording
without light to protect the lamp.

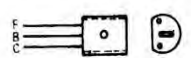
R	1	2	4	3	5	7	9	12	15	10	18	19	23	24	27	28	46	31	33	35						
C	1	4	5	5	7	8	9	10	11	12	13	32	43	57	60	63	16	17	18	22	19	20	15	21	23	24
B	15	1	2	3	6	4	7	5	8	9	10	12	13	23	24	19	27	18	19	27	18					



[] Spannungen bei AUFNAHME
 Voltages at RECORDING
 Tensions a la PRISE DE SON
 [] Spannungen bei WIEDERGABE
 Voltages at PLAY-BACK
 Tensions a la LECTURE

ohne Signal gemessen: gegen Masse
 [2] Instrument: Ri = 100.000 Ohm / Volt
 measured to ground, [2] without signal
 Voltmeter Ri = 100.000 Ohm / Volt
 mesuré sur masse [2] sans signal
 Voltmètre Ri = 100.000 Ohm / Volt

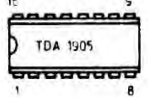
Halbleiter - Bezeichnung lt
 EUMIG - Norm
 Semi-conductor designation
 according to EUMIG - standards
 Désignation des semi-conducteurs
 selon les normes EUMIG



BCN0239B
 BCN0238B
 BCN0338
 BCN0237
 BCPO308B



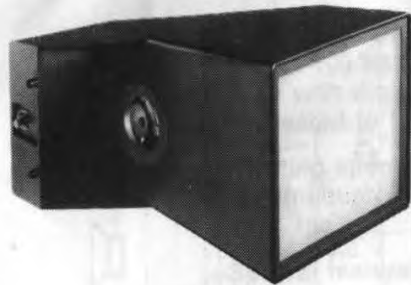
TCA0301



TDA 1905

Recommended accessories

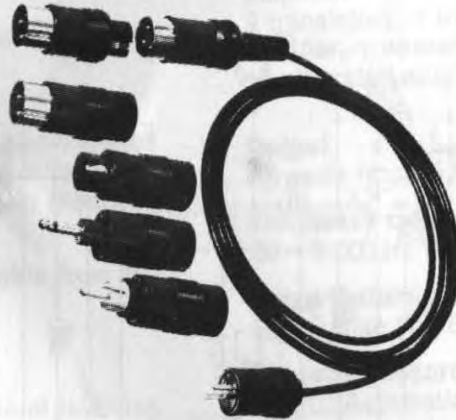
Daylight Viewer



The daylight viewer shows a brilliant image even in daylight on a screen 100 x 75 mm. similar to an animated editing viewer. Simply plug it onto the projector and you can preview your film. The daylight viewer is particularly useful for editing and sound recording.

Order No. 790.0296/1

EUMIG Universal Re-recording Lead



EUMIG helps you to link your EUMIG sound movie projector to any sound source. This is straightforward with EUMIG's Universal Re-recording Lead including various special adapters. Available from your movie dealer.

Order No. 790.0260/2

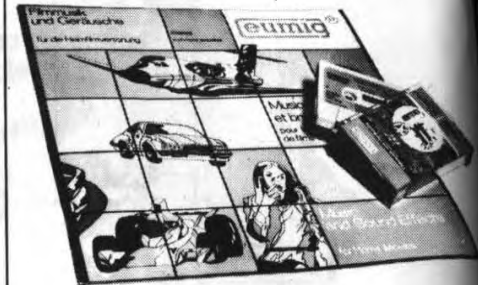
Folding case for Eumig sound projectors



This durable cover protects your projector during storage and has compartments for accessories and films.

Order No. 790.0401/5

Eumig music and effects record and effects cassette



Film music and effects for adding sound to home movies. A wide selection of music sections and everyday background sound effects – the ideal aid for your own sound movie recordings.

Order No. 930.077/6 (record)
Order No. 930.078/8 (cassette)

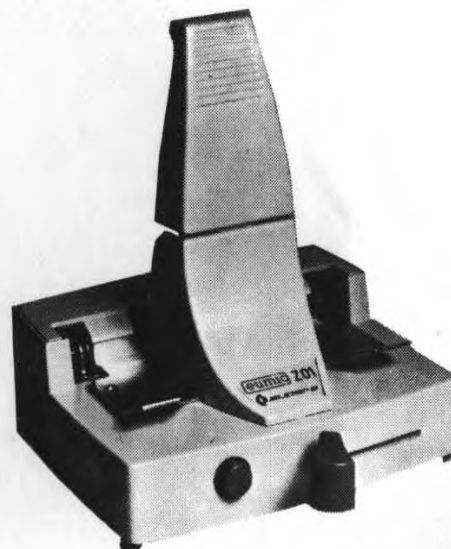
Bevel edge splicer



Simple bevel edge splicer for easy normal splices.

Order No. 781.0010/0

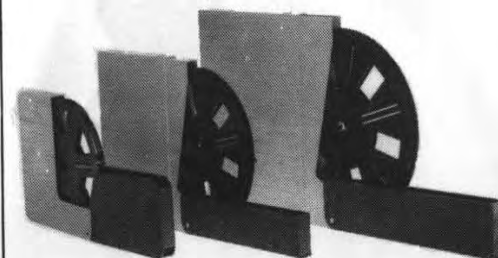
Chemo splicer



The simplest splicing system ever. The EUMIG Chemo splicer system interlocks the film ends with a serrated edge.

Order No. 781.0020/3

Eumig film reels



A selection from the wide range of EUMIG reels:

Universal AS 18 take-up and library reels, 120 metres (400 feet); order No. 790.0320/5.

AS 21, 180 metres (600 feet), order No. 596.0270/3.

For both Super-8 and Standard-8 film, boxed EUMIG self-threading reel in library case, 60 and 120 metres (200 and 400 feet) for Super-8 and Standard-8.

EUMIG EUROPA universal reel in library case 60, 120, 180 and 240 metres (200, 300, 600 and 800 feet) for Super-8 and Standard-8 film.