
ELMO

K-100SM

INSTRUCTION MANUAL

IMPORTANT SAFEGUARDS

When using your photographic equipment, 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 electric 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

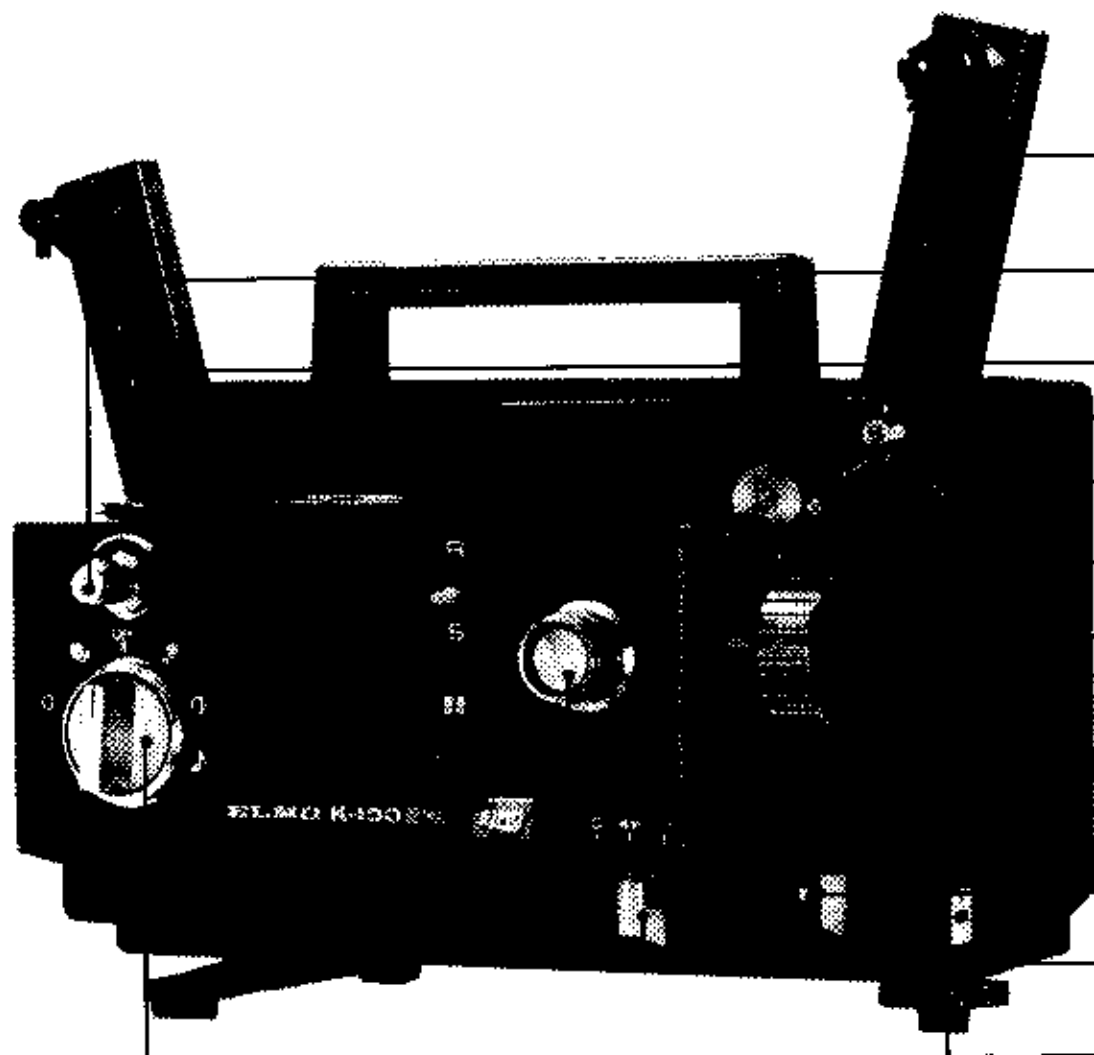
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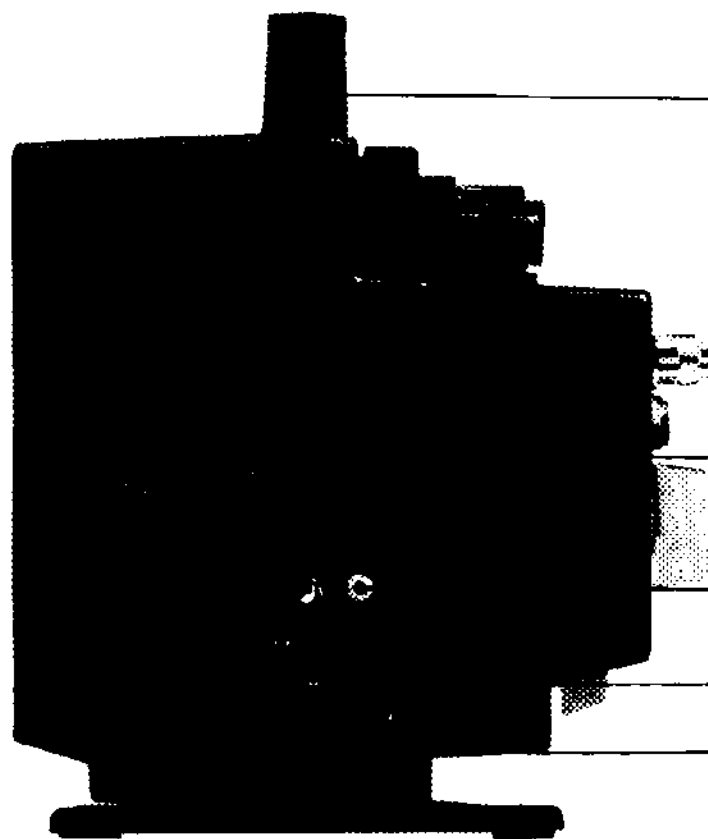
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MAJOR SPECIFICATIONS

Film :	Super 8 / Single 8 / Regular 8 (Double 8)
Projection Lamp :	12V 100W Elmo Halogen Lamp with Cold Mirror
Projection Lens :	FL3 f=15 - 25mm Elmo Zoom Lens
Projection Speed :	14 - 24 fps
Film Loading :	Fully automatic system
Motor :	DC Magnet Motor
Still Projection :	Possible
Slow Motion Projection :	Possible
Reverse Projection :	Possible
Synchronous start with Tape Recorder :	Possible
Quick Rewind :	Possible
Reel Capacity :	120 m (400 ft)
Dimensions :	290 × 235 × 185mm (11 $\frac{13}{32}$ × 9 $\frac{1}{4}$ × 7 $\frac{9}{32}$ in)
Weight :	6.5kg (2.9 lbs)

MAJOR PARTS DESCRIPTIONS





Feed Reel Arm

Speed Control Knob

Take-up Reel Arm

Film Threading Slot

Accessory socket

RS Film Type
Selecting Lever

Zooming Ring

Focusing Knob

Framing Lever

Film Trimming Slot

Projection Lever

Tilting Nut

Operation Switch

Hand strap

Front Cover

Synchro Jack

Power Cord Receptacle

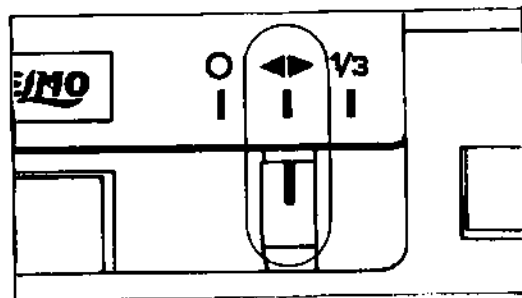
Rear Cover

1 PREPARATIONS BEFORE PROJECTION

1. Plug in the power cord.
2. Raise both take-up and feed reel arms.
3. Mount the feed reel and take-up reel on each reel spindle.
4. Inserting the end of film leader into the film trimming slot, trim the leader end by pressing down the trimming lever.
* If no leader is provided with the film, attach a proper length of leader to it without fail.



5. Make sure the projection lever is located at the position marked ◀▶.



Film Type Selecting Lever

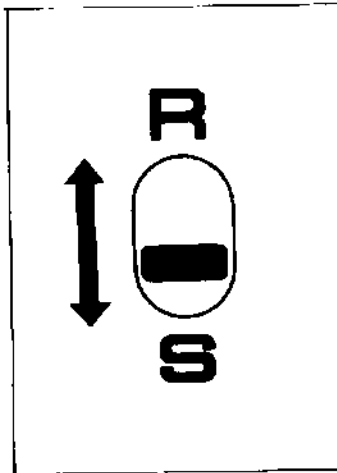
Select the lever in accordance with the type of film to be run.

Push down the lever to S position when projecting either Super 8 or Single 8.

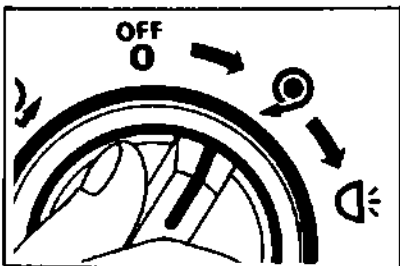
For Regular 8 (Double 8) operation, push up the lever to R position.

Caution :

1. The film type selecting lever must be set up positively at each selected position. R or S.
2. Be sure to avoid moving this lever while the projection is under way. Otherwise, the film may be damaged.



2 PROJECTION









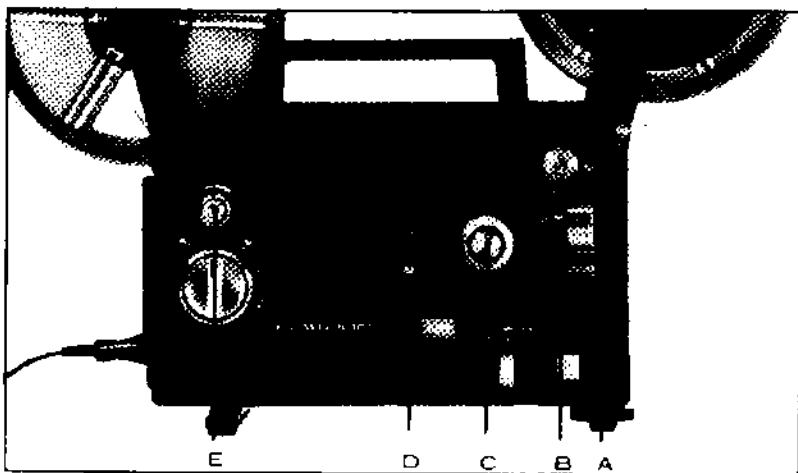
1. Turn the operation switch to the position marked  and the motor starts. Now, you are ready for threading the film. (The projection lamp does not light yet at this stage.)
2. Insert the end of the film into the threading slot as indicated by arrow. The film is automatically threaded through the film path and wound up onto the take-up reel.
3. Turning the operation switch to the position marked  will allow the projector lamp to light ready for starting the projection. When the operation switch is turned to  position after turning to  position, the film can't be threaded. In this case turn the operation switch to  position and then turn it to  position before threading the film.

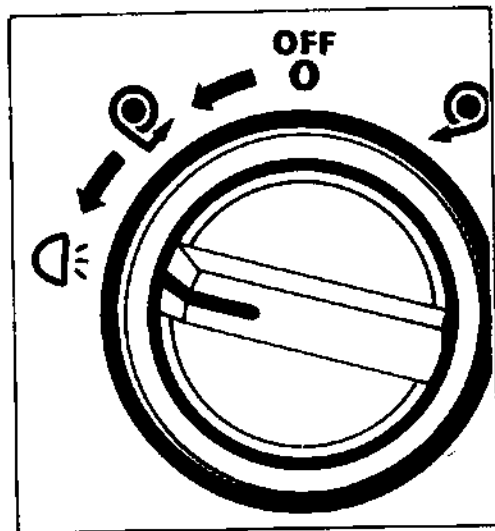
Image Alignment




- A. Determine the vertical image height using the tilting nut.
- B. Set up the image dimensions by turning the zooming ring.
- C. For achieving sharp image, establish a correct projector-to-screen distance by use of the focusing knob.
- D. To eliminate a frame line, adjust by moving the framing lever either up or down.
- E. If the picture tends to flicker, adjust by turning the speed control knob until a steady image is obtained.

3 VARIETY OF PROJECTION FEATURES

Reverse Projection



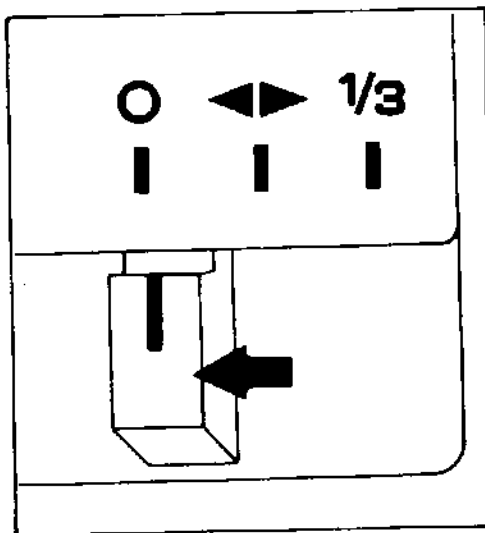
If the operation switch is turned counterclockwise to the position , you can make a reverse projection.


If a frame line appears, adjust by the framing lever.



Caution :

When the reverse projection is made to the end, the end of film may be damaged if no leader is provided with the film. Attach a proper length of leader to it without fail.

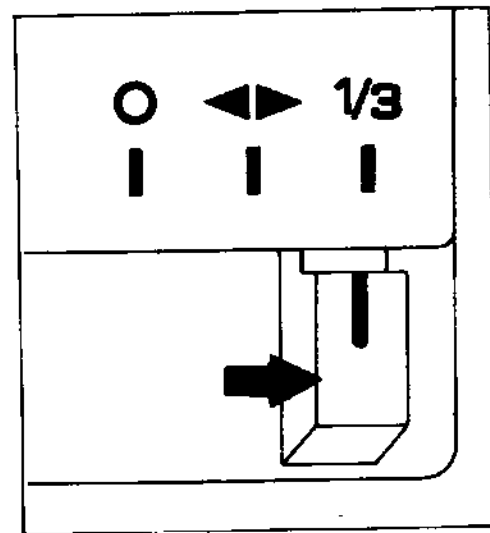
Still Projection




Shifting the projection lever to the left up to the position  will enable you to perform a single frame still projection of the desired frame.

If a frame line comes out, return projection lever to  position once and then move it  position again.

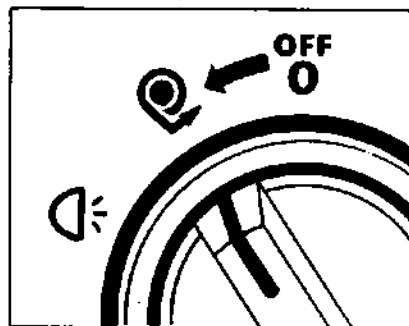
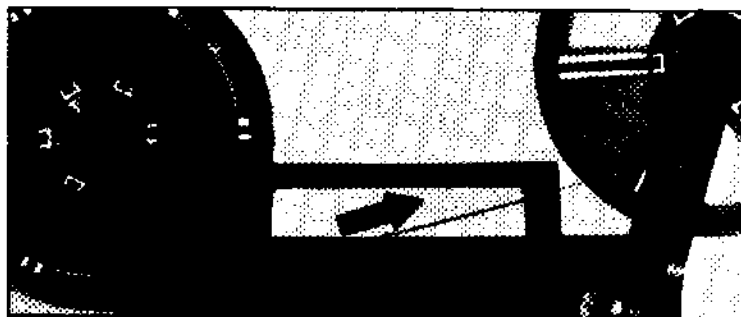
Slow Motion Projection




When the projection lever is thrown to extreme right position , a slow motion projection is available at a speed rate one third of the ordinary projecting speed (approx. 5 to 8 fps.)

In this connection, if the operation switch is set to the reverse projection position, you can enjoy a reverse slow motion projection.

4 WHEN A PROJECTION ENDS



1. As soon as the film has been wound on the take-up reel, set the operation switch to **OFF**. When the end of film is not rewound onto take-up reel, rewind the film manually by turning take-up reel.
2. Insert the end of film into the slit of the feed reel.

Then, turn the operation switch to  position and rotate clockwise the speed control knob all the way and the film can be rewound at high speed.



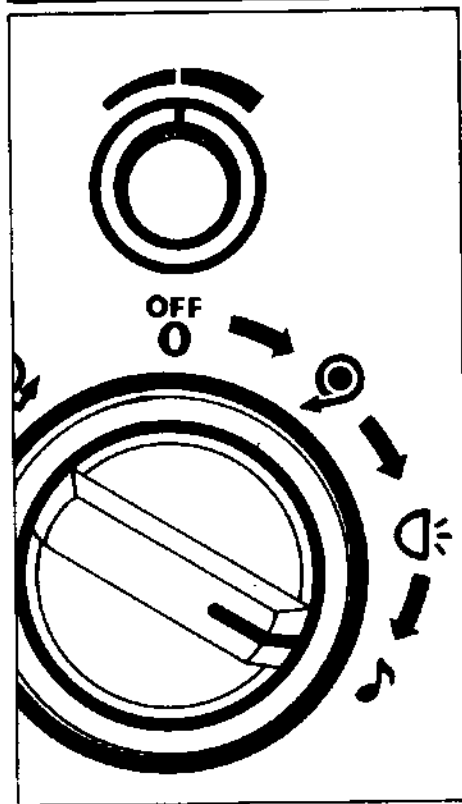
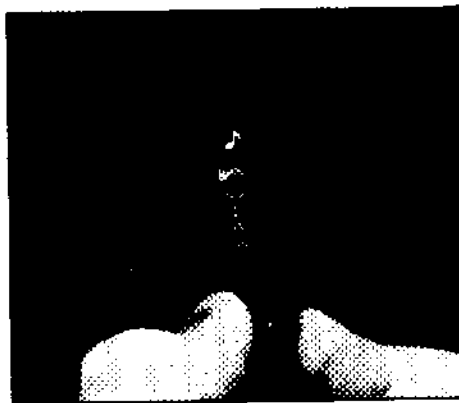
How to unload the film halfway through projection

1. Remove the front cover.
2. Remove the transparent cover for film guide.
3. Pulling on the lens holder toward yourself to open.
4. Unload the film progressively out of the film threading slot.


Caution :

When the film is completely unloaded, be sure to replace the lens holder and transparent cover in position and fix the front cover back positively.

5 COMBINED OPERATION WITH CASSETTE TAPE RECORDER



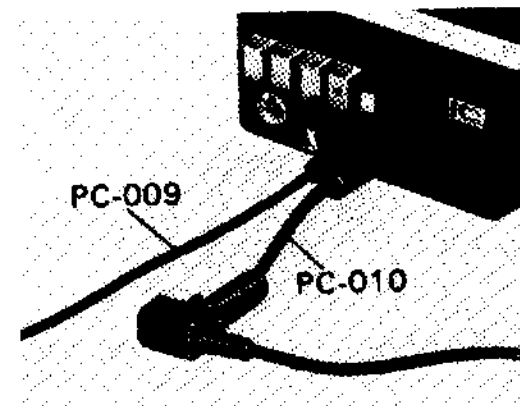
Using an optional synchro-cord (PC-009), connect the remote jack of the Elmo SR-1 or conventional cassette tape recorder (only those equipped with remote jack) with the synchro-jack in the projector. Meet the speed control knob at the mark as shown in the photo. In this case, the film speed available is approx. 18 fps.

If the operation switch is set to  position, the cassette tape recorder can be started in phase with the projector.

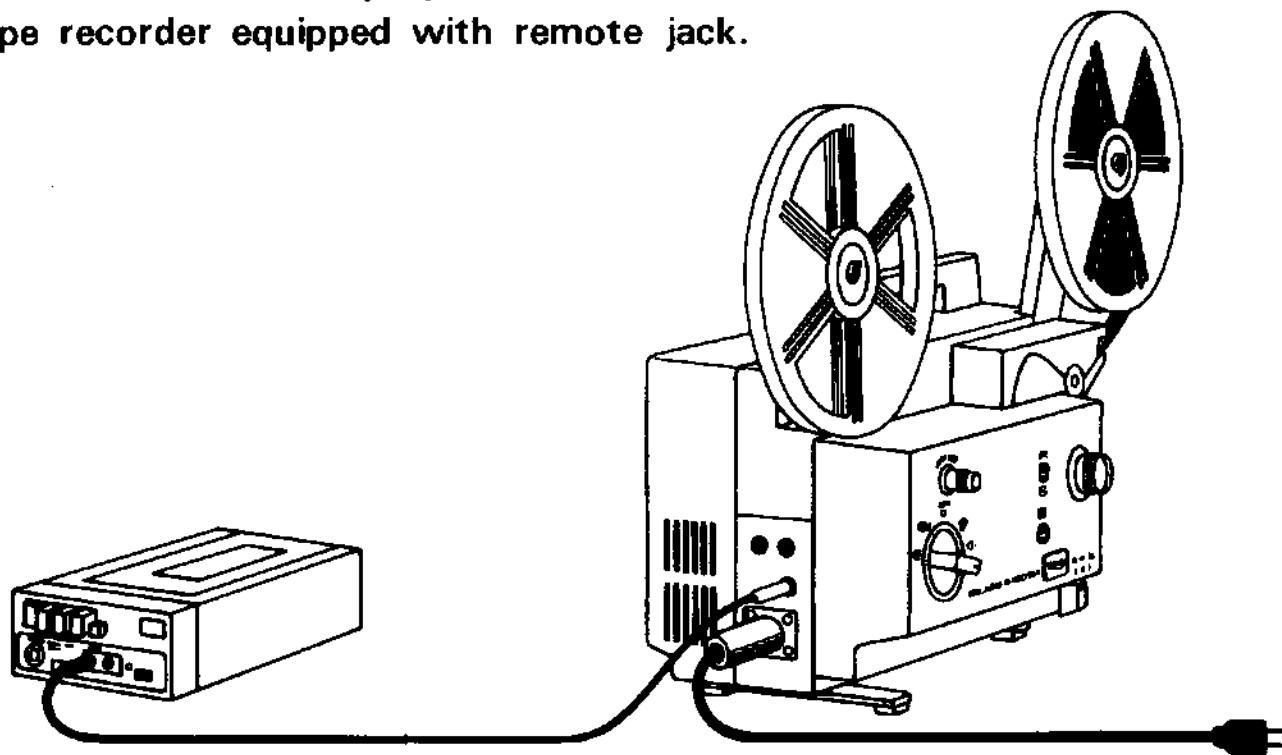
It is possible to record the background music or narrations on the cassette tape recorder while watching the screen or to reproduce them in keeping the pace with the movie projection.

Note:

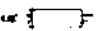



Please use PC-010 (Optional accessory cord) when the recording is performed with the microphone equipped with remote jack.



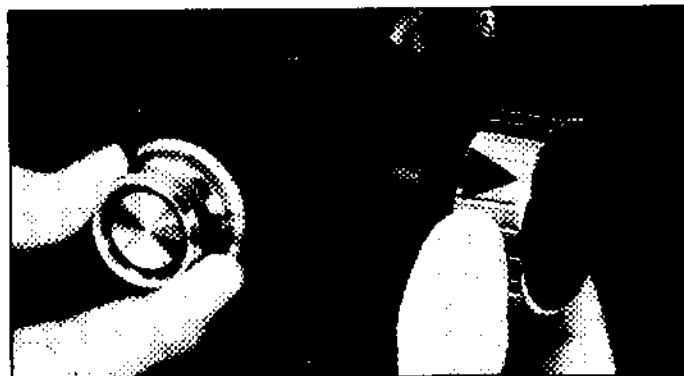
How to connect the projector with the cassette tape recorder equipped with remote jack.



● Optional accessory cord PC-009 and PC-010

PC-009	Projector 3.5 ϕ			2.5 ϕ Conventional cassette tape recorder
PC-010	Projector 3.5 ϕ			3.5 ϕ (Female) Tape recorder ↓ Microphone

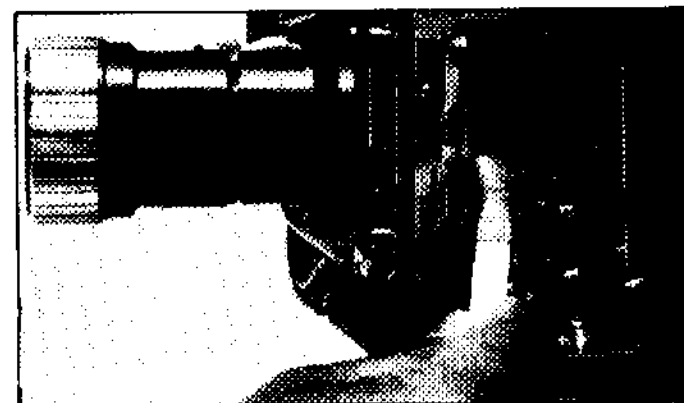
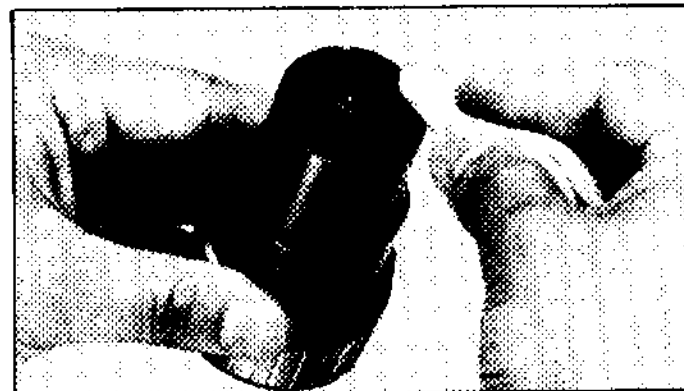
6 MAINTENANCE HINTS



Projection Lens

Turning the focusing knob fully clockwise, pull out the projection lens forward. Wipe the lens clean gently with a camel hair brush or soft cloth without fingering the lens.

When replacing the lens, be sure that the focusing knob is fully turned clockwise. Insert the lens while paying good care to the guide pin socket accepting the lens.



Pressure Plate / Aperture Plate

When the projection lens holder is pulled out after the front cover has been removed, the pressure plate is to appear.

Remove any film dirt or other foreign matters on the pressure plate with use of the supplied brush.

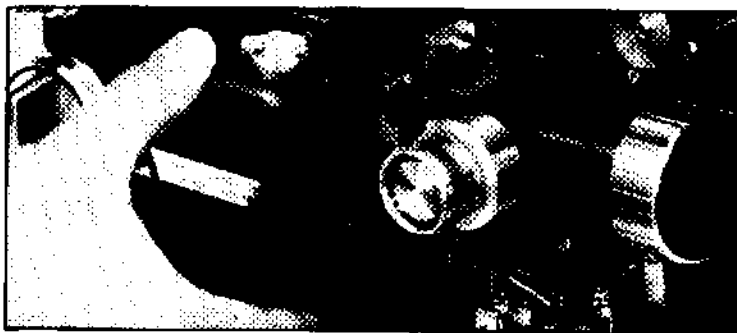
Caution :

Be sure not to touch the film sending claw.

7 HOW TO REPLACE THE PROJECTION LAMP

Be sure to unplug the power cord when replacing the projection lamp.

1. Remove the front cover.
2. Pull out the black lamp housing while pressing down the spring above the housing.



3. Holding the LH-side socket of the lamp, pull out it to the left.

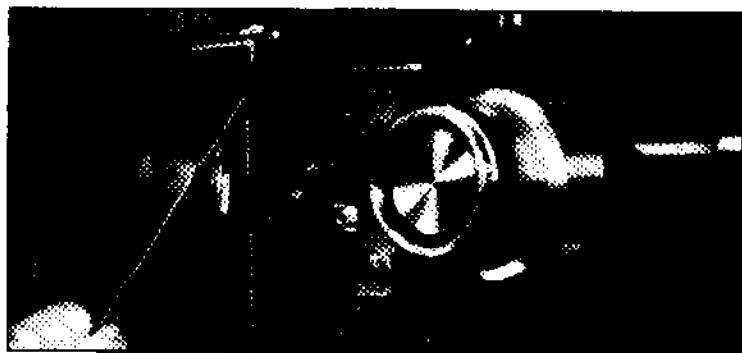


4. Holding the LH-side squared part of the lamp with hand, take out the lamp after removing the lamp fixing spring. Replace with a new lamp.

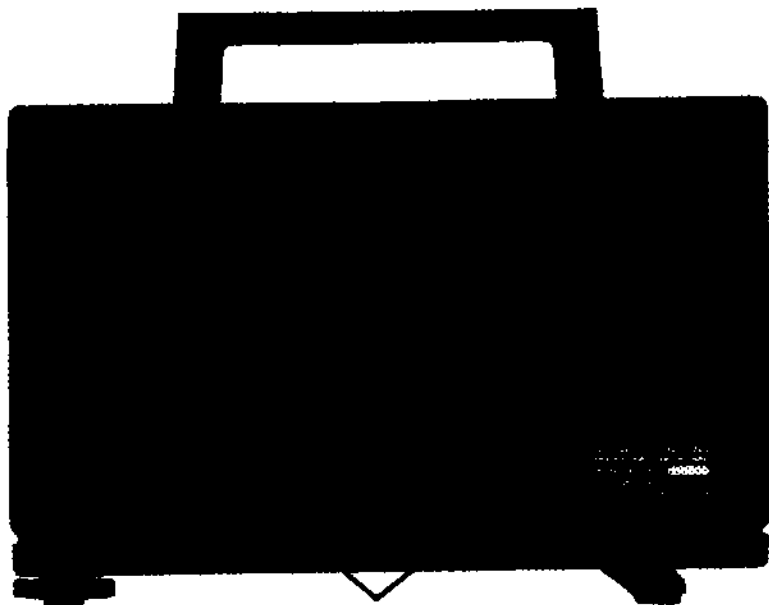


5. When putting on a new lamp, make sure of the position of the projected portion of the lamp and then, push on the lamp until it is positively fitted in place. After this, fix the lamp fixing spring.

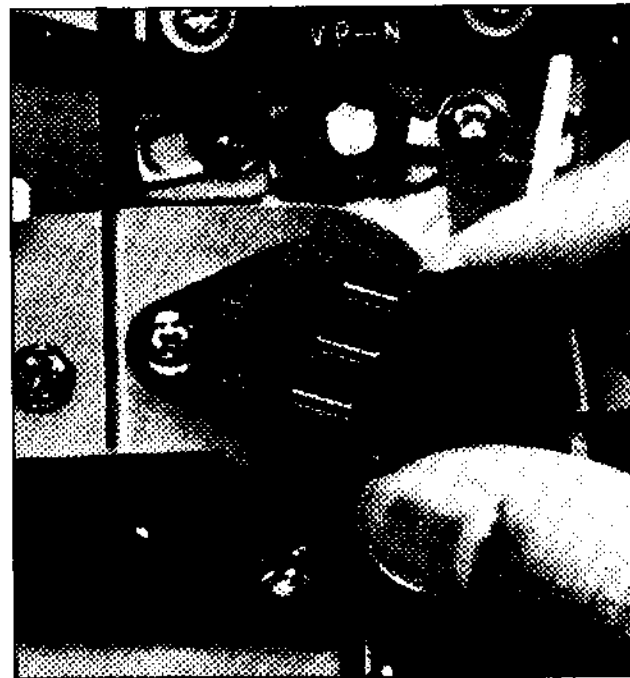
Finally, insert the socket so that it comes in perfect alignment with the pin of the lamp.



8 VOLTAGE ALTERATION



Rear Cover Setscrews



Be sure to unplug the power cord whenever changing the voltage range.

Remove the rear cover by unscrewing two setscrews on the rear side of the projector.

Pulling out the voltage selection knob toward yourself, set it to agree with the desired voltage so that the rated voltage value indication appears in the notched part of the knob.

There is single voltage model in compliance with electric regulations or conditions of each country.

9 TROUBLE SHOOTING HINTS

When the projector fails to operate :

Check to see if the power cord is correctly plugged in.

When the projector lamp fails to light :

Check to see if the lamp is positively plugged into the socket.

Check the operation switch position. Isn't set at



When the threaded film fails to reach the take-up reel :


Is the film type selection lever [R S] correctly set up in conformity with the type of film to be run ?

Is the film leader end properly trimmed ?


Check the film perforations for damage and spliced joint.

Is the lens holder fitted correctly ?

Is the front cover mounted in proper way ?

Is the projection lever  position ?

In case the last portion of film remains in the projector, when the film is rewound through the film path.

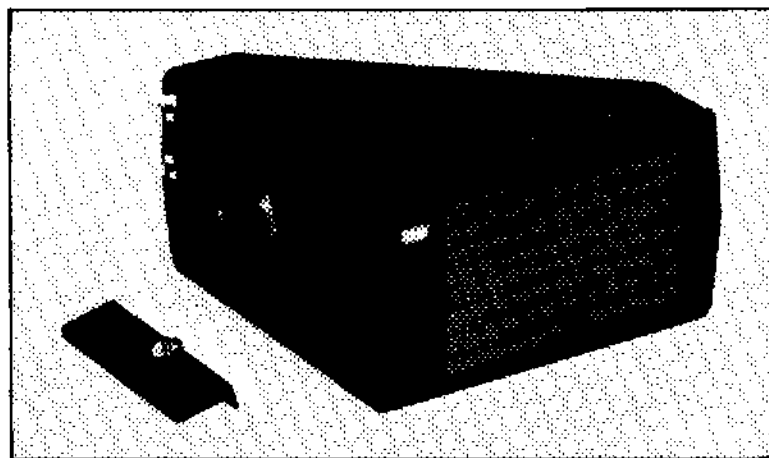
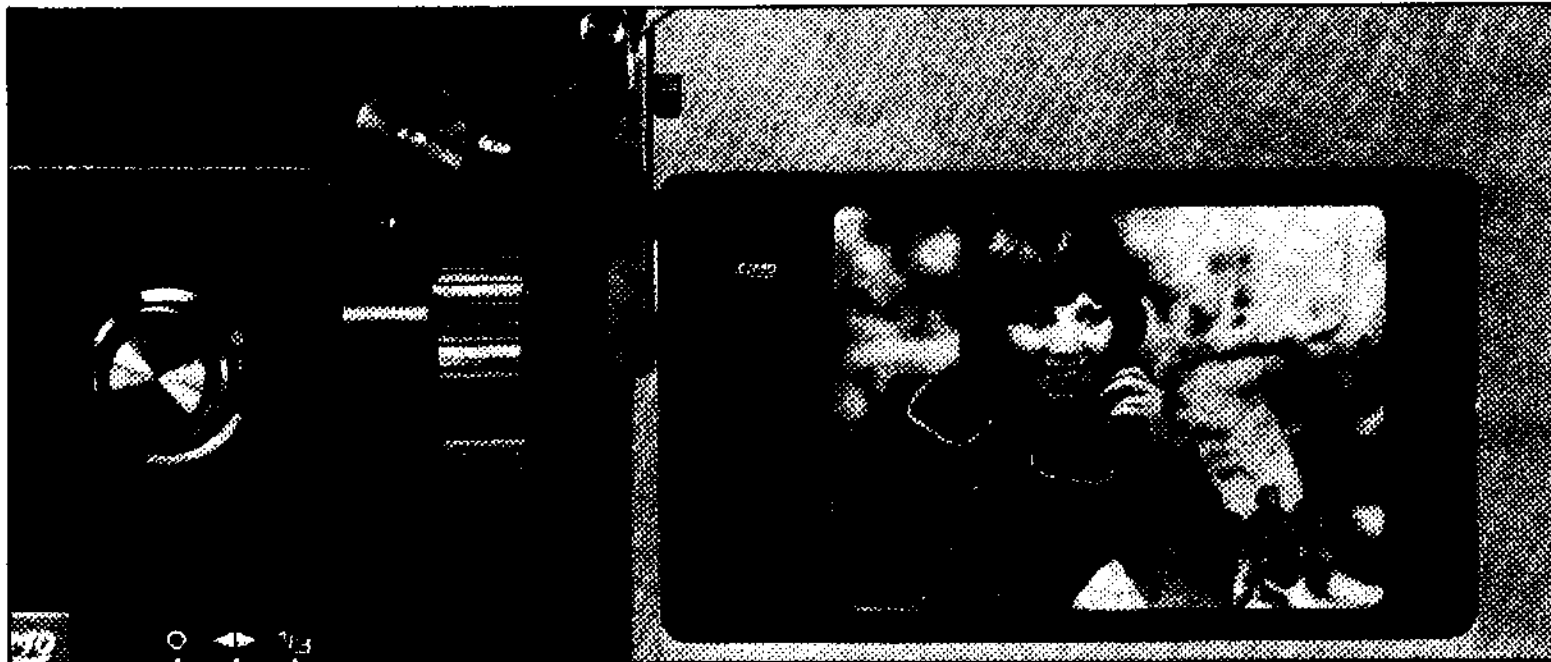
Turn the operation switch to  then pull out the film from the projector.

Heat proof glass is not broken but originally split into two pieces to allow expansion and contraction.



ACCESSORY

Elmo Viewer Type 100



Attachment of the Elmo viewer type 100 on the K-100SM projector will allow you to enjoy a projection at a bright room or in place of large size screen in a dark room setup.

As the adaptor is necessary to attach this viewer to the projector, prepare the adaptor for K-100SM projector.

OVERSEAS SUBSIDIARY COMPANIES

- West Germany** Elmo (Europe) G. m. b. H.
D-4, Düsseldorf, Elmo-Haus, Steinstr.
23, West Germany
Tel. (0211) 326867, 326870, 326895
- Canada** Arrow Photographic Equipment Ltd.
44 West Drive Bramalea, Ontario L6T
3T6 Tel. (416) 453 7880
- U. S. A.** Elmo Mfg Corp.
32-10 57th Street Woodside, N. Y. 11377
Tel. (212) 626-0150
- U. S. A.** Elmo Mfg Corp.
21220 Erwin Street, Woodland Hills,
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