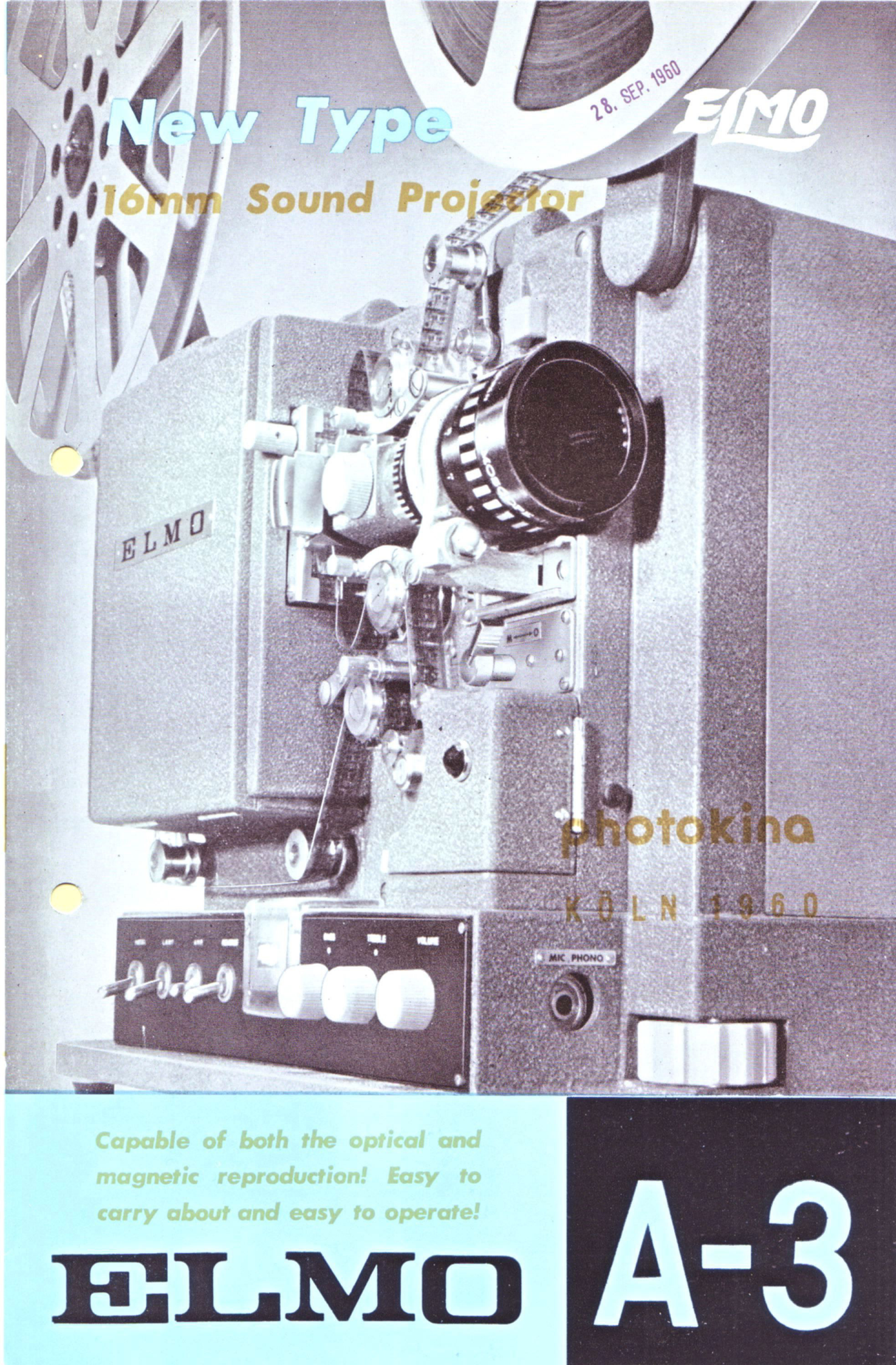




New Type

16mm Sound Projector

28. SEP. 1960

ELMO

ELMO

photokina

KÖLN 1960

Capable of both the optical and  
magnetic reproduction! Easy to  
carry about and easy to operate!

ELMO

A-3



## SPECIFICATIONS

|                  |                                                                            |
|------------------|----------------------------------------------------------------------------|
| Power source     | : Single-phase AC 50 and 60 c/s, 90 - 110 V<br>(Other voltages on request) |
| Reel capacity    | : Maximum 600 m (2,000 ft.)                                                |
| Projection speed | : 24 and 16 frames per second                                              |
| Film to be used  | : 16-mm talkie (optical and magnetic recording) films.                     |

### Projection Mechanism

|                    |                                                                                   |
|--------------------|-----------------------------------------------------------------------------------|
| Projection lens    | : Standard lens with aperture ratio of 1:1.5 and focal distance of 50 mm (2 inch) |
| Conversion lens    | : Mounting of $\times 0.8$ , $\times 1.25$ conversion lens possible               |
| Projection lamp    | : 100V-750W or other voltages - 750W                                              |
| Motor              | : Single-phase AC direct-wound commutator motor with governor                     |
| Reverse projection | : Reverse projection possible by switch operation                                 |
| Back winding       | : Attached with high-speed back-winding unit                                      |
| Accessory mounting | : Mounting of an Elmoscope lens and image converter possible                      |

### Talkie Mechanism

|                     |                                         |
|---------------------|-----------------------------------------|
| Construction        | : Patented Elmo sound system            |
| Vocalization system | : Optical and magnetic reproduction     |
| Exciter lamp        | : 4V - 0.75A high-frequency AC ignition |

### Amplifier

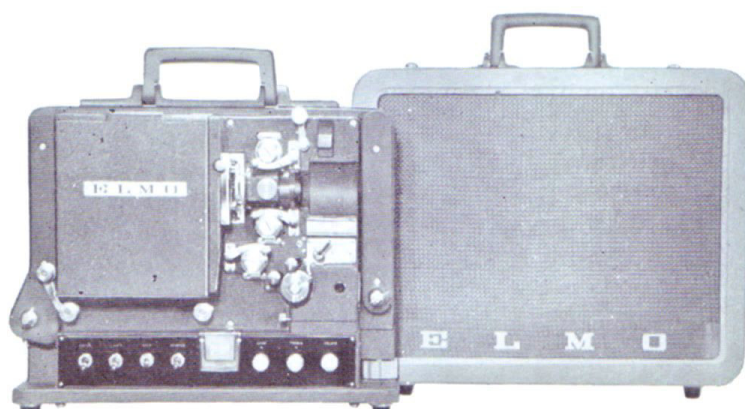
|                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| Photo electric cell                 | : 930                                                 |
| Vacuum tubes                        | : 7                                                   |
| Transistor and germanium diode used | : 4                                                   |
| Maximum distortionless output       | : 12 W                                                |
| Sound quality control               | : Separate control of treble and bass ranges possible |
| Microphone and record player        | : can also be used                                    |

### Loudspeaker

|             |                                                     |
|-------------|-----------------------------------------------------|
| Loudspeaker | : 8-inch permanent magnet dynamic speaker (2 p'cs.) |
|-------------|-----------------------------------------------------|

### Accessories

|                                         |   |
|-----------------------------------------|---|
| Power cord (5m or 16 feet with plug)    | 1 |
| Speaker cord (20m or 66 feet with plug) | 1 |
| Reel for 480 m or 1,600 feet            | 1 |



# A-3

## SPECIFICATIONS

|                  |                                                                            |
|------------------|----------------------------------------------------------------------------|
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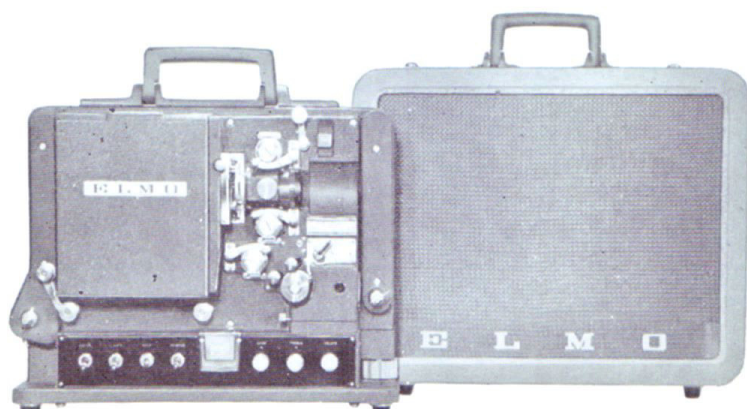
|                                     |                                                       |
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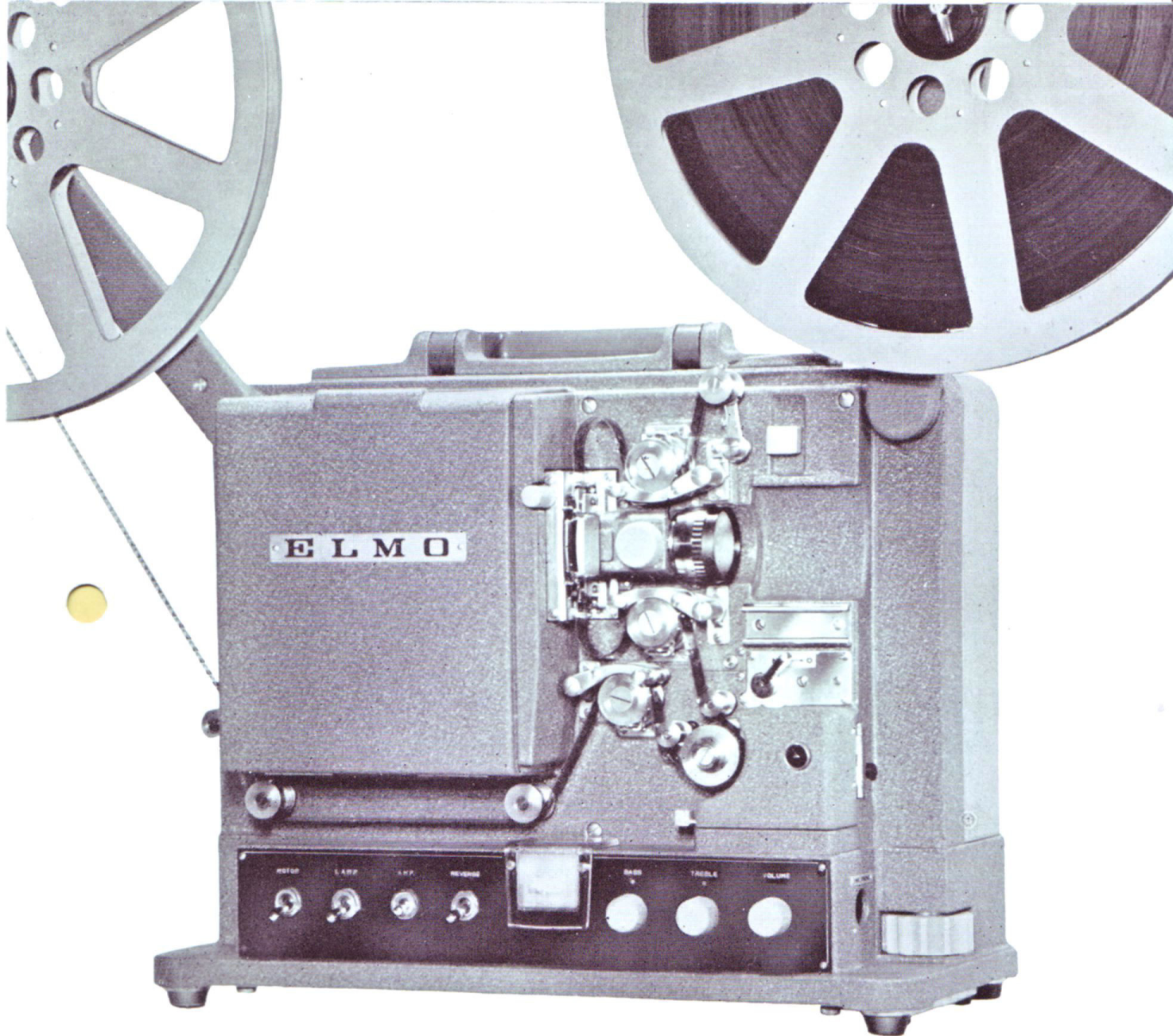
### Accessories

|                                         |   |
|-----------------------------------------|---|
| Power cord (5m or 16 feet with plug)    | 1 |
| Speaker cord (20m or 66 feet with plug) | 1 |
| Reel for 480 m or 1,600 feet            | 1 |



# A-3





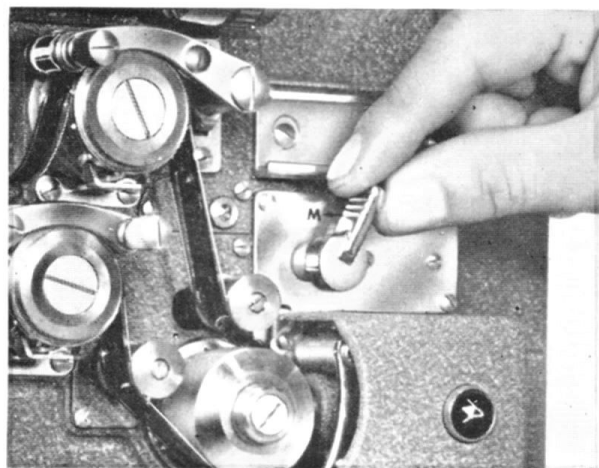
## 5 MAJOR FEATURES OF MODEL A-3

- Magnetic Sound Reproduction
- Amplifier Housing Transistors
- Wide Angle and Telephoto Conversion Lens
- Ball Bearings used for All Mechanism
- Unit System Amplifier



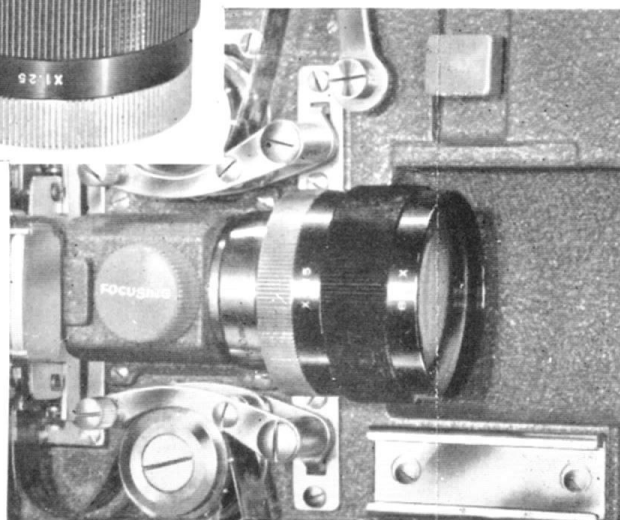
**PROJECTOR**

# FEATURES



## ↑ MAGNETIC REPRODUCTION ALSO POSSIBLE

In addition to optical reproduction, magnetic reproduction is also possible. The one-knob one-control switching system operates easily.

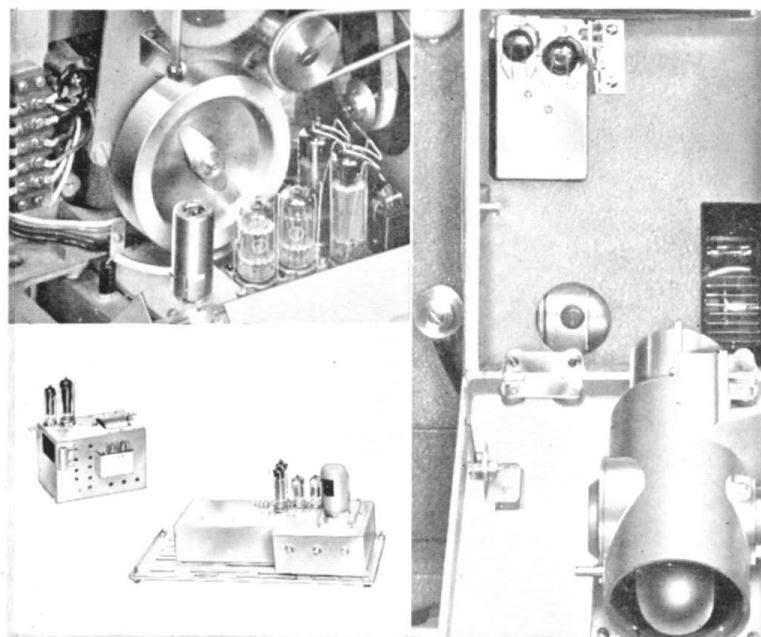


## ↑ CONVERSION LENS MOUNTING POSSIBLE

Mounting of the conversion lens attached to the standard lens makes it possible to achieve the effect of three lenses - 40mm, 50mm and 63mm.

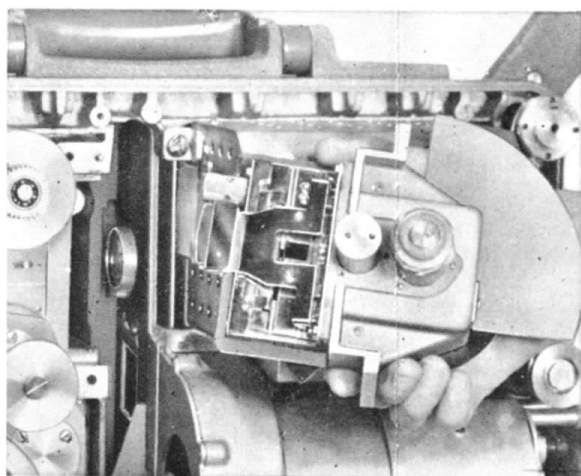
## ○ REVERSE PROJECTION POSSIBLE

Reverse projection is possible simply by operating the switch. However, no reverse projection can be allowed when switched to magnetic reproduction because the safety of film feeding may be jeopardized.



## ↑ AMPLIFIER UNIT SYSTEM

The amplifier consists of two units, the power supply and amplification units. Mounting and removing of each are very simple. A part of the amplifier circuit is of transistor and print-wiring. Also the checking and replacement of vacuum tubes can be done easily from outside.



## ↑ MOUNTING AND REMOVAL OF THE INTERMITTENT FEEDER UNIT

The construction allows unit mounting and removal of the intermittent feeder section. Consequently, maintenance, checking and repairs are very easy.

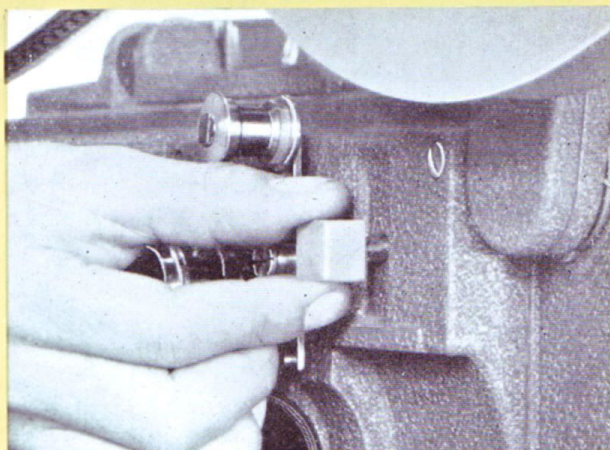


## ○ MOTOR

A governor-provided motor, which develops no fluctuation in the revolution by fluctuations in the power supply voltage, frequency or load, is used. The brush and the governor can be changed without any trouble. The talkie speed of 24 frames per second and the silent speed of 16 frames per second are interchangeable by switch operation.

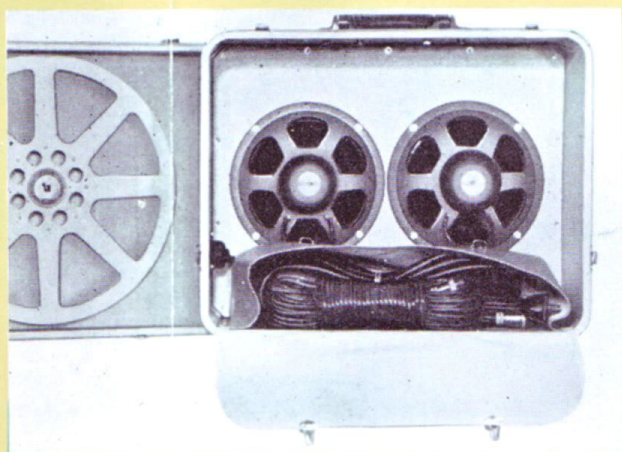
## ○ NO OILING REQUIRED

No oiling is necessary since all bearings are of precision-class ball bearings.



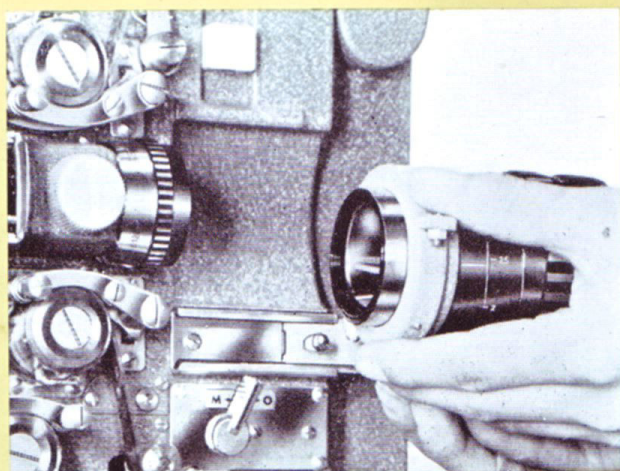
## ↑ HIGH-SPEED AUTOMATIC BACK-WINDING POSSIBLE

Drawing the back-winding knob out of the front arm allows high-speed automatic back-winding of the film.



## ↑ SPEAKER

The use of a special speaker cabinet designed for high-fidelity acoustic reproduction, together with the performance of the amplifier, makes it possible to produce high-fidelity sound.



## ↑ ACCESSORY MOUNTING SEAT

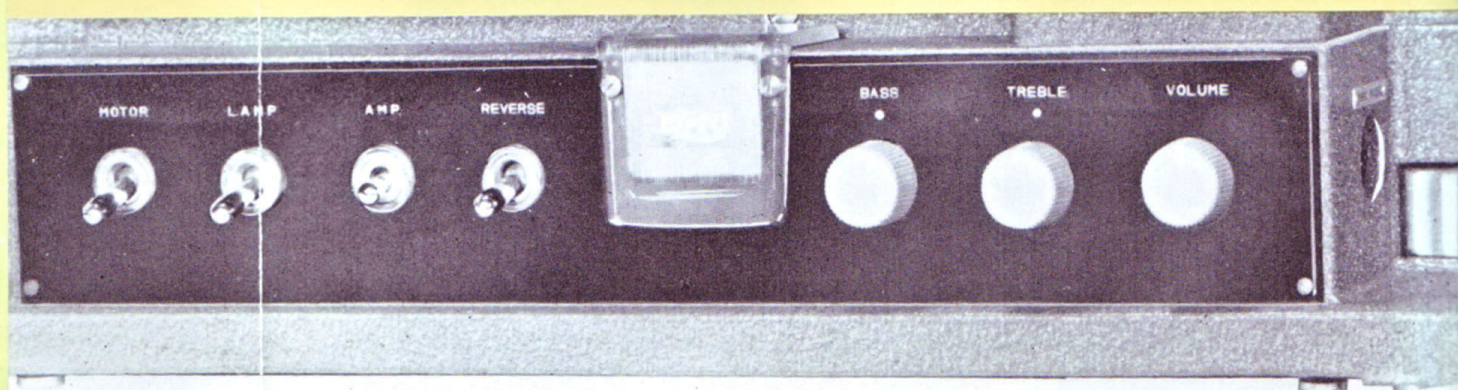
Accessories such as the Elmoscope lens and the image converter can easily be mounted.

## ↓ SOUND QUALITY CONTROL OF THE AMPLIFIER

The treble and bass ranges can be adjusted separately. For this reason, highly effective acoustic reproduction can be achieved according to the condition of the hall or the type of film used.

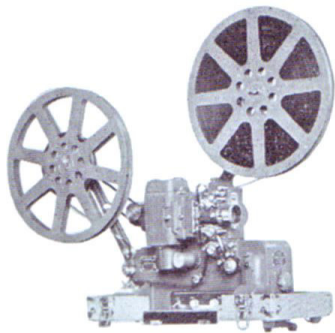
## ↓ EASY HANDLING

Constructed for handy carrying, with rational arrangement of the knobs and switches, it is extremely easy to handle and operate.

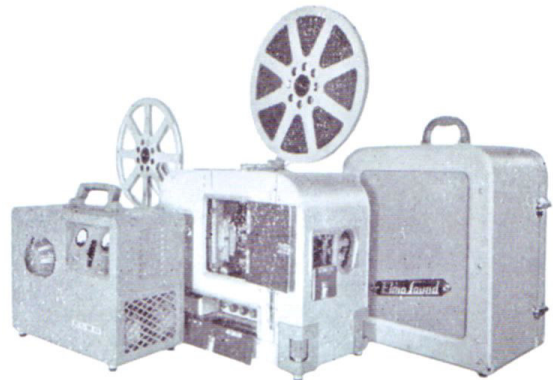




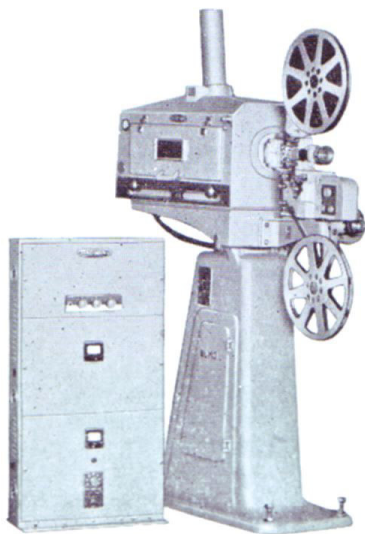
# ELMO 16mm PROJECTOR



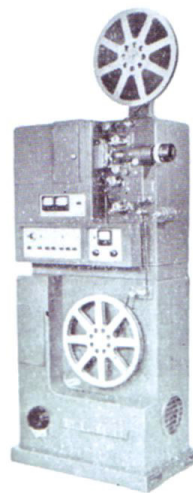
Sound Projector, D-2 Special (one set, one case)



Xenon-arc Talkie Projector, XP-830



Carbon Arc Sound Projector, LC-3

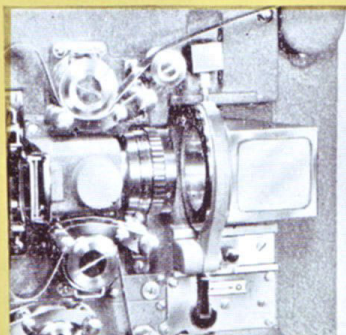


Projector for TV

## ELMO 16mm Accessories



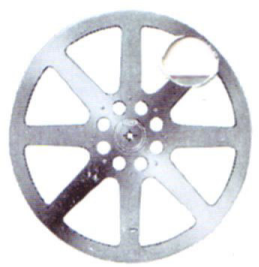
Elmoscope lens



Daylight projection device



Auto-transformer



Reel (480 meters)

**ELMO CO., LTD.**

**NAGOYA, JAPAN**

PRINTED IN JAPAN