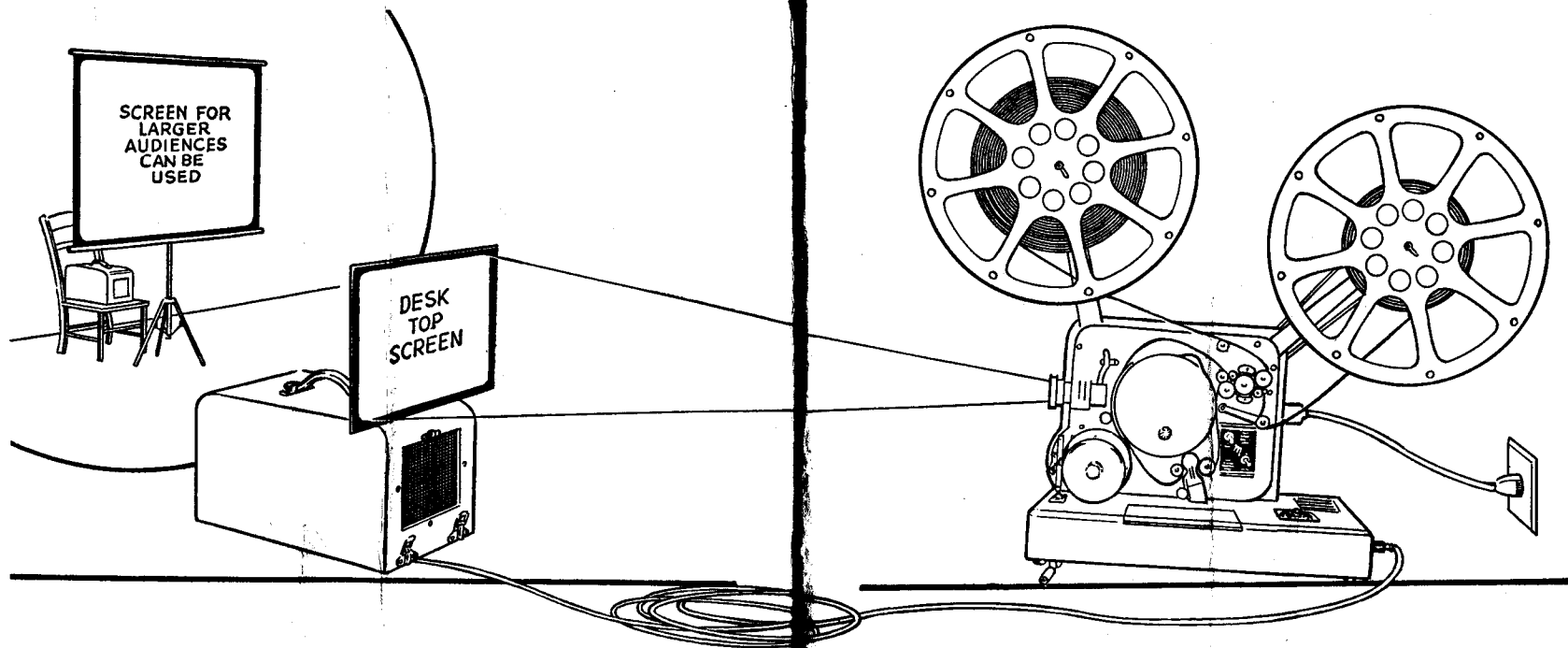


# MANUAL



**16 MM SOUND-ON-FILM  
MOVIE-MITE PROJECTOR**



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## MOVIE-MITE

*is probably the simplest of all projectors to operate*

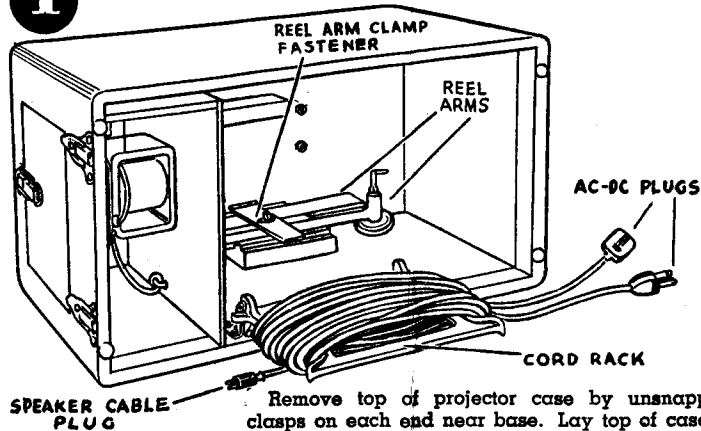
Threading is simplicity itself: Only one movable part need be operated in the entire threading procedure.

Two electrical plugs complete all connections to the projector. A universal A.C.-D.C. motor and amplifier eliminate the need of a converter.

Controls are all out in the open, grouped for easy operation.

Reel arms are easily installed . . . since both arms are identical, they are interchangeable.

The MOVIE-MITE was designed and engineered to meet the need for a simple, compact, and light weight projector.

**1**

Remove top of projector case by unsnapping two clasps on each end near base. Lay top of case on side with cord rack down. Release reel arm clamp fastener, raise reel arm clamp, remove reel arms. Swing cord rack out and unwind the cord. Re-fasten cord rack under clamp.

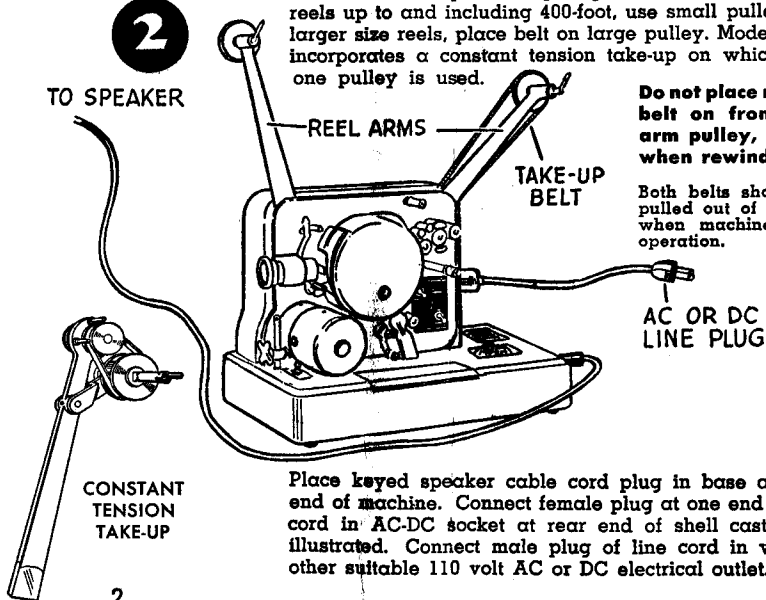
Place reel arms in sockets with pulleys towards back side of projector. Raise take-up belt from cavity at rear of machine and place on pulley. Do not cross belt. For reels up to and including 400-foot, use small pulley. For larger size reels, place belt on large pulley. Model 63LM incorporates a constant tension take-up on which only one pulley is used.

**Do not place rewind belt on front reel arm pulley, except when rewinding.**

Both belts should be pulled out of cavities when machine is in operation.

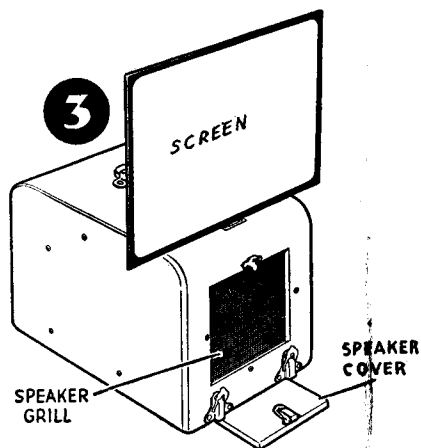
**2**

TO SPEAKER



Place keyed speaker cable cord plug in base at back end of machine. Connect female plug at one end of line cord in AC-DC socket at rear end of shell casting as illustrated. Connect male plug of line cord in wall or other suitable 110 volt AC or DC electrical outlet.

2

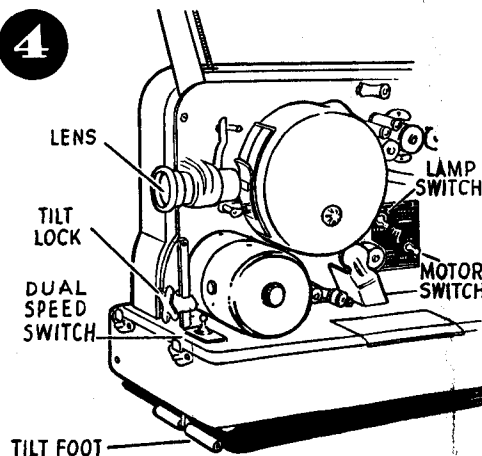
**3**

Place speaker case, with handle up, at suitable projection distance from projector.

Remove screen from back of machine; slip out of protective cover and place metal tongue in socket above speaker grill on case top. Tilt screen to convenient projection angle.

Remove speaker cover.

On glass top desks, you may find an improvement in sound if speaker is raised slightly. Hard glass surfaces may have a tendency to cause undue reverberation in speaker baffle or cavity. Under such conditions, a good practice is to place speaker cover or a book under speaker case, as illustrated.

**4**

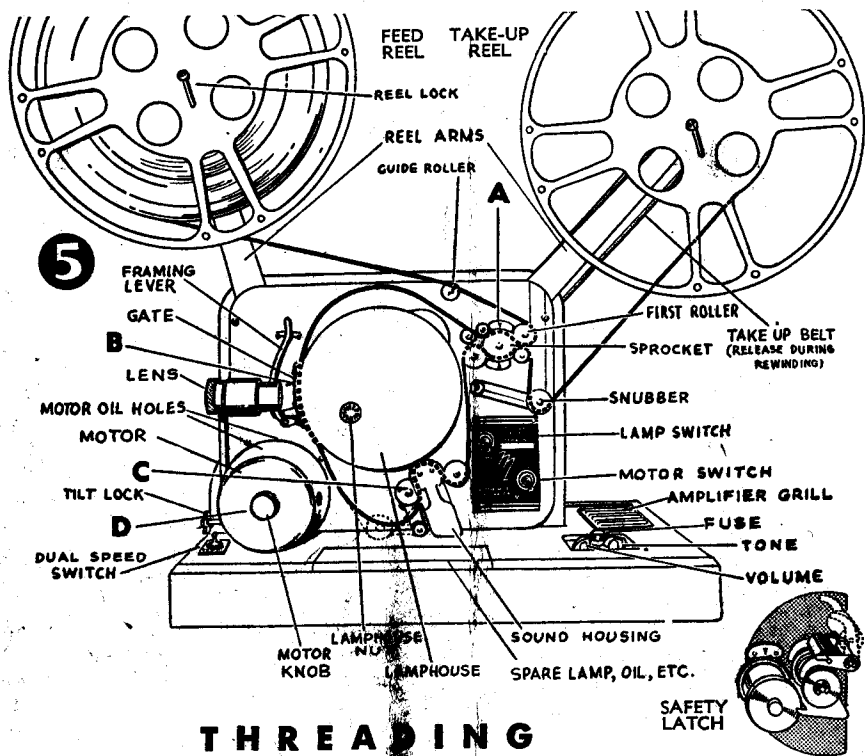
Turn motor and lamp switches on, pull lens forward until frame of light can be seen on case or screen.

See that "silent" or "sound" speed switch is in correct position for the type of film you are using.

Loosen tilt lock and raise projector to height necessary for framing light on screen. For more critical adjustment of light, screw the lens slowly in or out until projected light has definite frame line on the screen. This same adjustment is used to focus picture after projector is in operation.

Turn off the motor before threading.

3



## THREADING

Be sure film is coming off the feed reel toward the left side and counter-clockwise. Film perforations must be away from you, and sound track toward you. Snap reel lock into place. Note that reels with either a square or a round hole on the back side will lock on the spindle. For round holes, the reel lock lies one way; for square holes, it lies the opposite. The reel lock is correct when the clip lies parallel to and against the reel surface. **MOVIE-MITE** Projector uses film wound on any reel—the same as other standard machines. It is not necessary to have film specially wound.

Pull about 3 feet of leader film off the reel so that enough film will be available to complete threading operation. Lift safety latch, place film over guide roller, around first roller, over the top of sprocket, and between two smaller rollers, as illustrated. Push film back against film clip A, allowing film perforations to engage on the sprocket teeth. Film clip will then snap back over edge of film. Lower safety latch so that the film will be held securely between the flanges of the first guide roller.

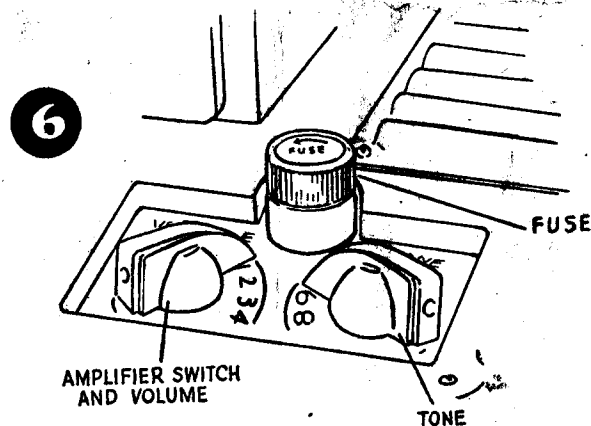
Turn motor knob D by hand until arrow on film clip A lines up with any sprocket tooth. This clears the shuttle teeth from channel at B, eliminating any hindrance to slipping film in film channel behind pressure plate at B. Let film follow approximate path as illustrated so it will clear lamp house

and then slip edge of film under pressure plate at B until it fits into correct position in the film channel. This can be determined by sliding up and down slightly and making certain that the pressure plate at B holds film in place. Also, a good check is to turn motor knob D counter-clockwise. The film should move downward frame by frame. Then, a good practice is to turn motor knob D to any point where the arrow on the film clip A is centered between any two sprocket teeth. This engages film at B and greatly aids further threading. Pull pad roller C to left and down against stop and place film under roller, as illustrated in dotted lines. Thread over sound housing and under next roller. Leave pad roller C down.

Now pull film snug, with no slack, and engage perforations on lower sprocket teeth, using same method as on top. **Make certain to thread film under snubber—this is most important.** Lift the pad roller C back into running position against sound drum and let film hang loose, automatically forming lower loop. Attach film to take-up reel by placing film on reel so it will be taken up in a counter-clockwise direction. If necessary to remove slack, slide belt on take-up pulley.

Now turn motor knob several times to see that film is running properly—checking all threading points.

The projector is now ready to run, as soon as the amplifier is warmed up. There are only three switches for operating the machine—lamp switch, motor switch, and amplifier switch. Before starting machine, read Step 6.



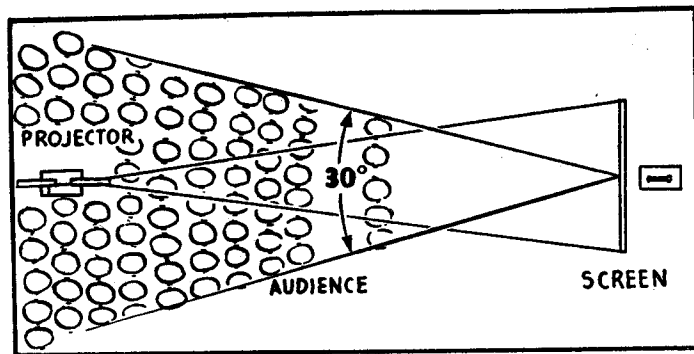
**Amplifier**—Two controls for the amplifier are plainly marked, one for Volume, the other for Tone. The volume control also acts as off and on switch for amplifier. These controls are like the ordinary radio controls on your home radio. When the amplifier has warmed up, you may start the machine by turning on both lamp and motor switch.

**Rewinding**—Leave reels in same position as when machine was in operation. Remove take-up belt from pulley. Pull out rewind belt and place on feed reel pulley for rewinding. Do not cross belt. Feed film back under the original feed reel. **Use only one belt at a time when operating MOVIE-MITE.**

# HINTS for Good PROJECTION

Audience location should be within about 30° angle from center of the screen. This allows best light reflection to audience from matte white screens. When glass beaded screens are used, limit audience location to 20° angle. Beyond these angles, brilliance of projected image falls off noticeably.

Whenever possible, audience should be located immediately in front or at sides of projector. Do not seat audience too close to screen. The picture will look best from a reasonable distance back and as near center of room as possible.



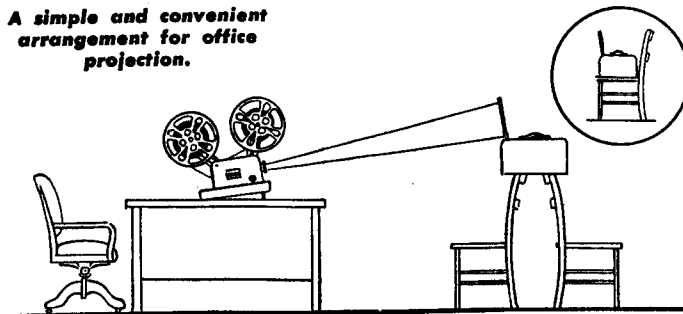
Sound in "live" rooms, or "hard" rooms, as rooms with little sound absorption qualities are sometimes called, can often be improved by manipulating tone control. Almost every room has different acoustical characteristics, so adjust the tone to the point which sounds best. Another aid is to place speaker high on chair or table. This practice should be followed in any room. *Never set speaker on the floor.*

Easy and convenient set-ups for shows can be improvised with available material or preps.

Whenever possible, try to leave bottom part of speaker carrying case free from complete shut off. The speaker portion of carrying case acts as a baffle for speaker, and sound will usually be improved if this suggestion is followed.

Practice good showmanship in your projection of films. Remember you are competing with professional projectionists. People are accustomed to the standards of projection set by the regular movie theatres. Try to make your shows professional.

A simple and convenient arrangement for office projection.



## Some rules for showmanship are:

1. If you are showing before a sizable audience, arrive at the appointed place of showing beforehand, so that machine can be set up and checked at leisure before audience arrives.
2. Arrange beforehand to have someone handle the control of room lights. Have a cue or prearranged signal to indicate the time for light control. Be certain that the room light switch doesn't also turn off your projector.
3. Never show a white screen. Turn projector lamp off or hold your hand in front of lens as soon as "End Title" leaves the screen—also turn down sound volume at this time.
4. Never leave your projector. Stay with it at all times during show, in order to adjust focus, volume and tone controls in case of variations in the film.
5. Be sure machine is up to speed before volume is turned up to normal level. This procedure eliminates disagreeable variations in tone. Always give the amplifier time to warm up before starting your machine.
6. Try to obtain well darkened rooms for projection. If the show is in daytime and light proof shades are not available, project toward the windows. In doing this, the screen surface will be somewhat shaded from the extraneous light and a brighter picture will result. Remember that stray daylight leaking through cracks or venetian blinds often gives the projector more competition than room lights at night. Obtain absolute darkness whenever possible—it is the greatest aid to any projector.
7. If possible, don't rewind film or start to pack up machine until audience has left the room.
8. If you are carrying your machine into offices or showing to individuals on a moment's notice—practice speed in setting up your machine, rewinding, etc. and learn just about how far your speaker must be from the projector, etc. Make every movement count. A MOVIE-MITE can be set up in less than three minutes.

# What To Do If . . .

## 1. Motor will not run:

Motor switch (see illustration page 10) may be off. The projector may not be getting electricity, or the voltage may be excessively low. Inspect the cord where it enters the electrical outlet. Be sure there is current up to the outlet. The cord may have been damaged by jerking it from the wall. Always grip the plug—never jerk the cord out of the wall.

## 2. Motor runs, but lamp is off:

Lamp switch may be off. (See illustration page 10.) Lamp may be burned out. Remove lamp house nut (see illustration page 10). Pull lamp house off toward you (see illustration page 12). See if filament is broken. If so, remove lamp by pressing down slightly and turning lamp counter-clockwise. Replace with new lamp. Carry a spare lamp at all times. Purchase spare 300W-115V-T8½ single contact lamps from your dealer, or write MOVIE-MITE CORPORATION.

## 3. Motor runs, but amplifier tubes won't light:

Amplifier switch (page 5) may be off. The fuse may be burned out. Fuse is behind volume and tone controls. Take off cap and examine fuse. If burned out, replace with a 3 ampere fuse. Warning: damage may result if heavier fuse is used.

Any one of tubes may be burned out. (See page 14). If one is bad, none will light. We suggest changing one tube at a time so bad tube can be located. Turn amplifier switch off when replacing a tube. Be sure to get tubes in correct, plainly marked sockets.

## 4. Tubes light, but there is no sound, even at high volume:

Projection lamp may be off or burned out. Projection lamp must be on, or no sound will result. Projector may be improperly threaded—check. If you are using D.C., wall plug may be reversed. Take plug out of wall outlet, turn over, and plug in again.

## 5. There is sound, but volume is low:

Volume control knob (page 5) may be in low volume position. Turn knob to right for more volume. Projector may be improperly threaded—check. Sound lens at top of sound housing (page 12) may be covered with dirt or lint. Clean gently with pipe cleaner.

A tube or photo cell may be defective (possible, but not probable). Have them tested. Photo cell is in projector base—to check, lay machine on side and remove four screws in bottom panel, allowing access to photo cell for removal. Be sure rectangular hole in metal shield on photo-cell is lined up to allow scanning beam to reach the cell.

## 6. Sound is bad or unintelligible:

Projector may be incorrectly threaded. Film must run over the sound drum freely and smoothly. A tube may be bad. Have them tested. Voltage may be low. Speaker may be in bad place—put on chair or table beamed at audience. Low pitched sound may be caused by improper position of tone control knob or low voltage. Test for best position of tone control knob or have voltage checked. Check speed switch to be sure it is in "sound" position.

## 7. Picture is blurred:

Projector improperly threaded or film loop lost. The film must follow the approximate line as illustrated and be placed properly in the film channel at the gate. Lens may be oily or dirty. Pull lens completely out of mount and clean with soft cloth, lens tissues or other soft tissue of Kleenex type. Note: Most projection troubles, both in picture and sound, are caused by improper threading. Study this manual and practice until correct threading becomes automatic.

## 8. Picture is not framed:

If there is a horizontal line in your picture, cutting off either the top or bottom of your image, move the framing lever either forward or backward to the correct position (see page 10).

## General Information About the MOVIE-MITE Projector

The MOVIE-MITE projector was designed to fill a definite need in the motion picture industry. It is a small, compact, convenient, complete, and inexpensive sound motion picture projector for small audiences.

It is intended for showing 16 millimeter sound films in offices, homes, and class rooms. The small screen provided is surprisingly adequate for small groups. Its size, to the eye is comparable to larger screens placed farther away. The texture of this screen has been chosen for its brilliance from all angles in the room. It is especially adapted to semi-dark rooms.

Naturally, larger screens can be used. The MOVIE-MITE will project a brilliant picture up to 37 x 50 inches. We do not recommend over-taxing the machine for larger screens; however, in emergencies and for night showings, a good motion picture screen up to 6 x 8 feet has been used successfully. Sheets, white walls, and other poor substitutes for screens will not give satisfactory results, even with the most powerful equipment.

Remember—total darkness insures an excellent picture. Strive toward it. Use the MOVIE-MITE as it was intended to be used, and you will receive the utmost in sound motion picture projection service.

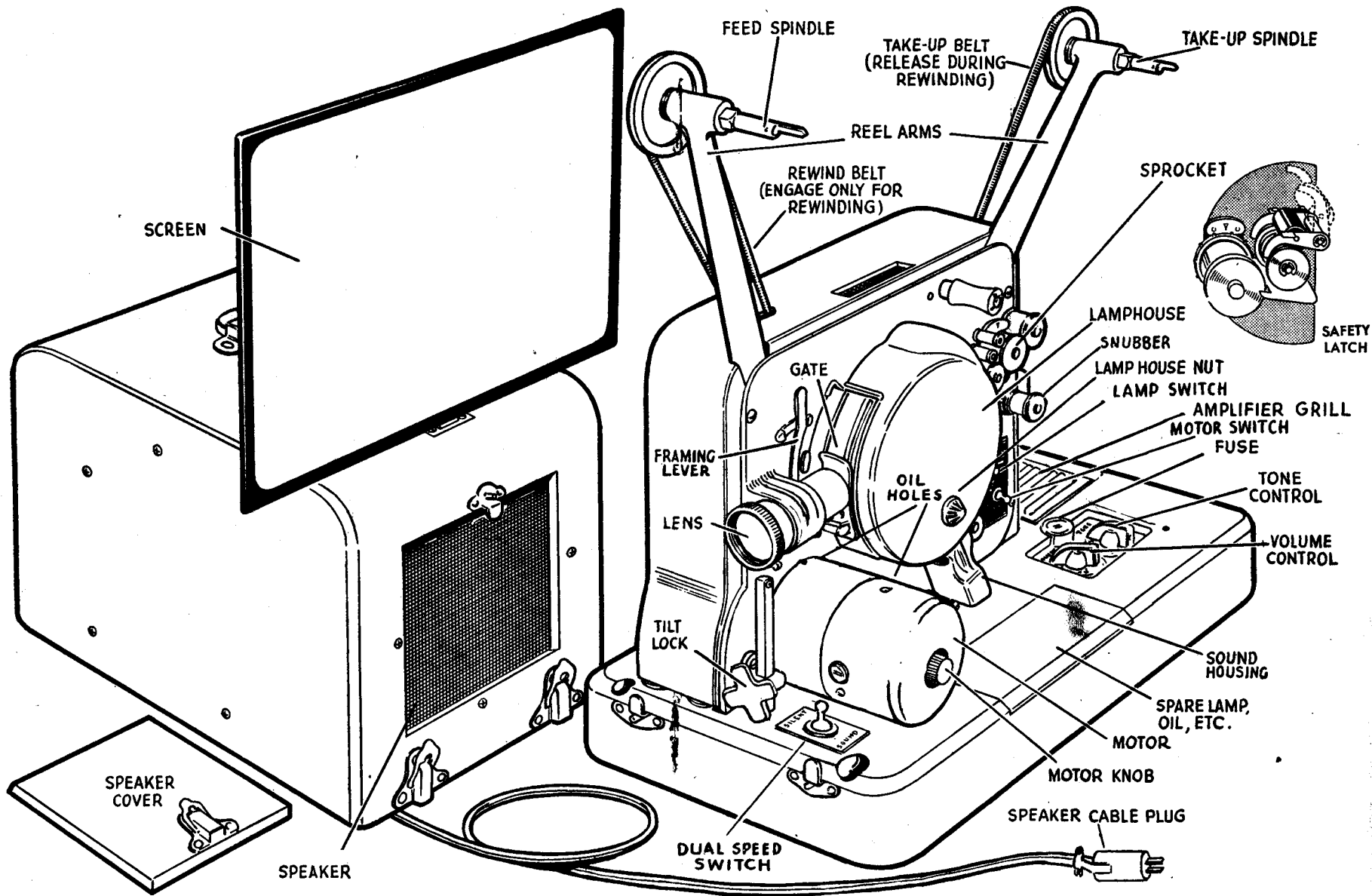
## Shipping:

When shipping MOVIE-MITE projectors, pack well. Remember your MOVIE-MITE, while sturdy, is a delicate piece of machinery. Keep the original shipping carton in which your MOVIE-MITE was shipped from the factory for possible use in storage or re-shipment.

MOVIE-MITE dealers will be glad to help you properly pack your projector when returning it to the factory, or to some authorized service organization for adjustment and repairs.

## Ordering Parts:

MOVIE-MITE CORPORATION has set up a nationwide distributor-dealer organization to help give you better service for your projector. See your dealer for obtaining replacement parts that are consumable, like lamps, tubes, belts, etc. If repairs are needed, the dealer can have the machine sent to the closest service station. Don't order parts from the factory—see your dealer first. If necessary to write the factory about your projector, be sure to mention the serial number.



# SERVICE INFORMATION

After you have become acquainted with the operation of your projector, it is advisable to remove the lamp house and familiarize yourself with the inner mechanism. Unscrew the thumb nut on the lamp house and the circular cover will slip off. Do not tamper with the delicate mechanism. We advise, however, that you turn the motor knob to the left and watch the operation of the parts.

## Oiling:

Two bottles of oil are furnished with each machine; Type "A" and Type "B".

Type "A" oil, a heavy oil, should be used only as indicated below, at shuttle pivot point (behind condenser lenses) and on the cam.

Type "B" oil is a general purpose oil and should be used on cam shaft bushing (oil hole indicated by red dot above cam), and two oil holes on front and rear motor bearings (Page 10). No other oiling is necessary. Do not oil motor excessively.

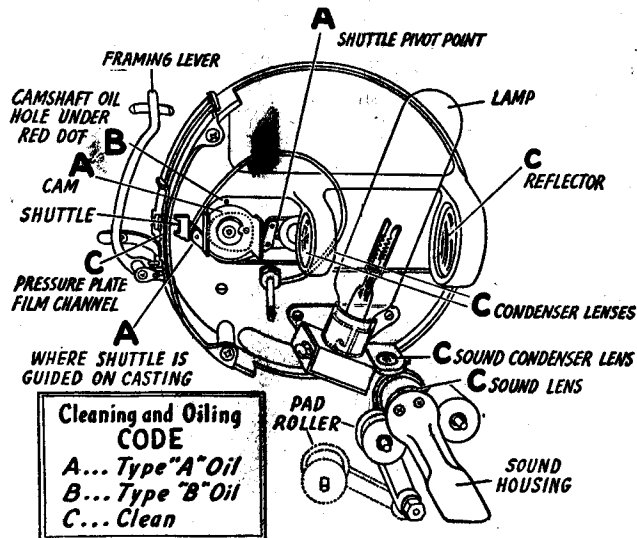
For constant use, oil projector every ten hours of operation. If projector is used only occasionally, oil before each use, especially upon first use if dealer has not opened carton.

## Lamp:

The lamp can be removed by pressing down and turning to the left, then pulling out.

## Condenser-Reflector:

With the lamp out, it is simple to clean the two surfaces of the condensers and the mirror surface of the reflector. These optical units should be kept



clean at all times to assure maximum illumination for picture projection. Use a soft cloth or Kleenex type tissue for cleaning.

## Framer:

Note the action of the framing lever. This lever frames the picture so as to eliminate any horizontal black frame line across the top or bottom of the picture.

## Sound Condenser Lens:

Both surfaces of this lens should be kept clean. It collects the light for scanning the sound track of the film.

## Sound Lens:

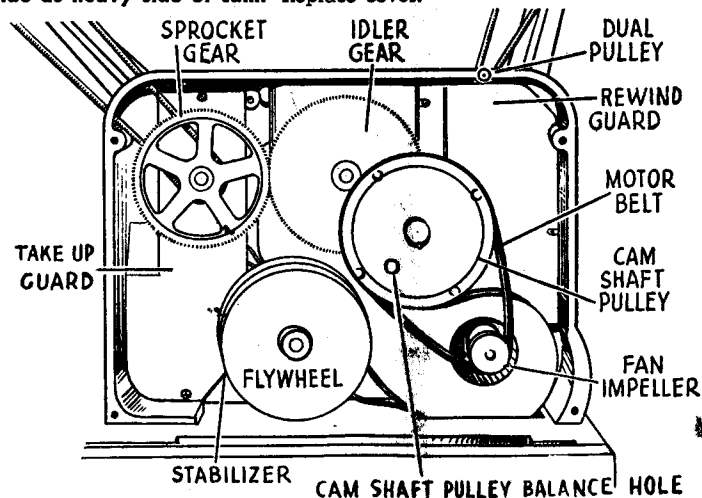
Note the very small sound lens mounted in the top of the sound housing. This lens should be kept clean. A simple method of cleaning is to rub an ordinary pipe cleaner lightly back and forth over the lens. Incidentally, a pipe cleaner also serves as an excellent aperture brush to remove accumulated fuzz around the gate. This fuzz or lint is sometimes noticeable around the picture when on the screen.

## Rewind and Take-up Belts:

Replacing belts is simple. Merely hook a new belt to the end of the old belt and pull the new belt into place.

If belt breaks and falls inside of projector, it is then necessary to remove back plate on projector by removing four slotted screws.

Before rewind guard can be removed, cam shaft pulley must be removed. In threading rewind belt, cross belt before threading through small dual pulley on top of casting and hook ends. Replace parts, making sure that gears mesh, when arrow on film clip is in line with a sprocket tooth while shuttle is retracted from gate (see illustration page 4). Cam shaft pulley balance hole should be positioned on cam shaft so as to be on same side as heavy side of cam. Replace cover.





## Amplifier TUBES Photo Electric CELL

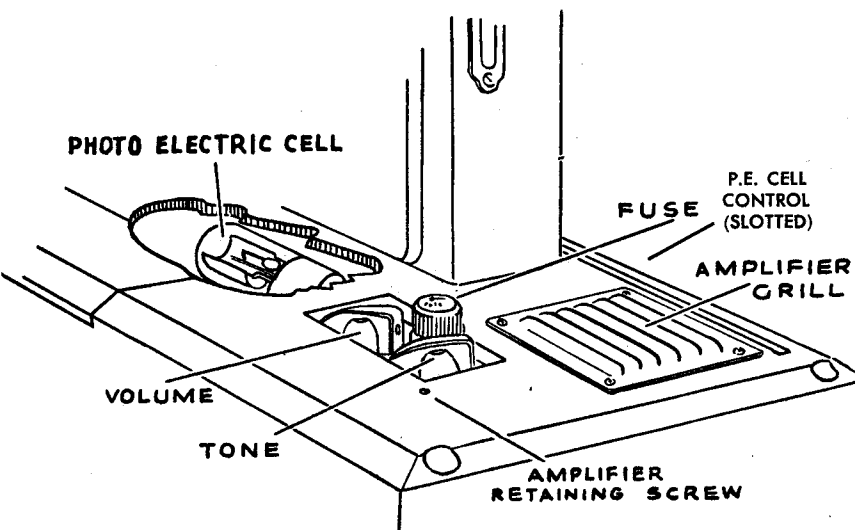
In the MOVIE-MITE projector, the amplifier, tubes, and photo electric cell are in one integral unit, easily removable from the machine. Four screws in the bottom of the base allow access to amplifier.

To remove amplifier (see servicing instructions on bottom of machine) follow up by removing amplifier retaining screw (see illustration). Amplifier, complete with tubes and photo cell, is then removable as a unit.

To remove photo electric cell, first remove metal shield, then pull cell from socket. In replacing shield, be sure rectangular opening is on top, so that scanning beam can reach photo electric cell plate when amplifier is inserted in machine. Electrical connector for amplifier is keyed so it can be connected one way only.

The photo electric cell voltage control is set at the factory for proper operation at line voltages between 105 and 120 volts. Adjustments can be made whenever local voltage conditions require it.

Loss of volume will result when voltages are lower than normal. Too great a voltage on the photo electric cell will cause the amplifier to "motor-boat," and/or have excessive volume to the point of distortion. CLOCKWISE rotation of this control INCREASES the voltage applied to the photo electric cell.



# MOVIE-MITE AMPLIFIER TUBES

Used in Model 63LM

When ordering tubes, give both name and number of tubes needed.

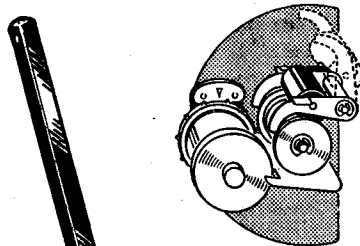
| Tube No.             | Quantity | Movie-Mite Part No. |
|----------------------|----------|---------------------|
| 6C4                  | 2        | 30-2941             |
| 12AU6                | 1        | 30-2942             |
| 50B5                 | 2        | 30-2936             |
| PE CELL 930 or CE30C | 1        | 30-2947             |

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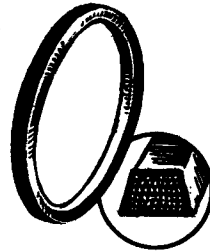
**MOVIE-MITE FUSE 3 amp. 30-2048**

*Use only genuine MOVIE-MITE  
parts as listed in this booklet.*

# MOVIE-MITE PARTS



No. 30-1500  
Safety Latch  
Assembly



No. 30-1109  
Motor Belt



No. 30-1080  
Tilt Leg



No. 30-1082  
Tilt Foot Rubber



No. 30-1070  
Tilt Lock



No. 30-1689  
Idler Gear Clip



No. 30-1517  
Idler Roller Clip

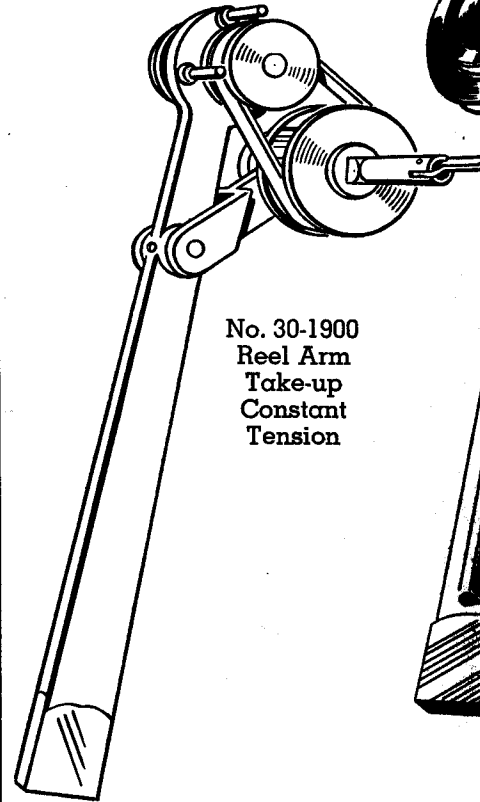


No. 30-1516  
Roller Clip

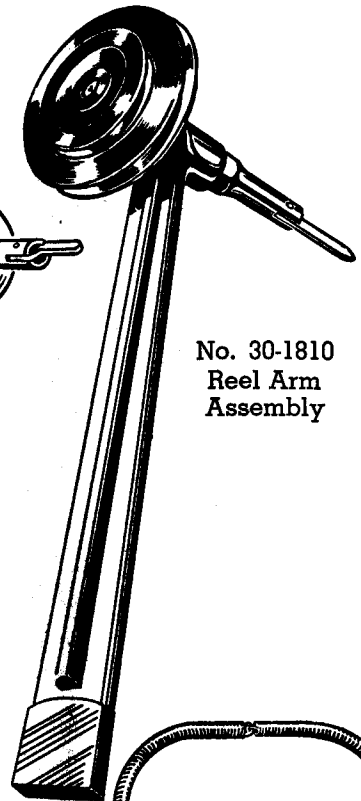


No. 30-1518  
Roller Clip

# Order by Name and Number



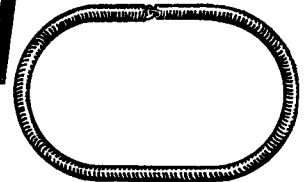
No. 30-1900  
Reel Arm  
Take-up  
Constant  
Tension



No. 30-1810  
Reel Arm  
Assembly



No. 30-1906  
Cloth Take-up  
Belt



No. 30-1836  
Take-up Belt

No. 30-1837  
Rewind Belt

No. 30-1838  
Spring Take-up  
Belt for Constant  
Tension Arm

# MOVIE-MITE PARTS



No. 30-1219  
Reflector



No. 30-1217  
Condenser  
Lens, front



No. 30-1216  
Condenser  
Lens, back



No. 30-1218  
Sound  
Condenser  
Lens



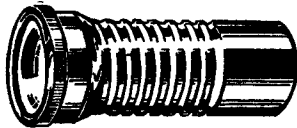
No. 30-1228  
Reflector Lock Ring



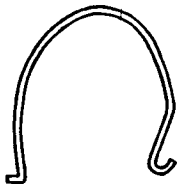
No. 30-1226  
Condenser Lock Ring



No. 30-1227  
Sound  
Condenser  
Lock Ring



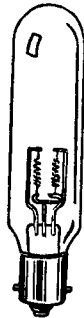
No. 30-1200  
Projection Lens, 2"



No. 30-1238  
Shuttle Spring

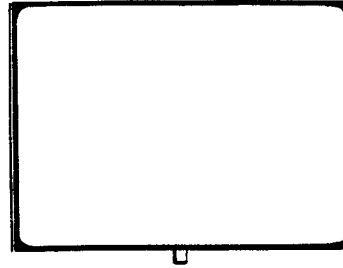


No. 30-1366  
Lamp House Nut



No. 30-1300  
Lamp

# Order by Name and Number



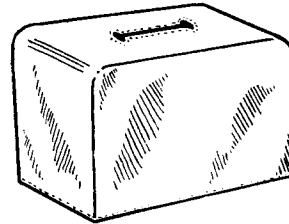
No. 30-4350  
Screen



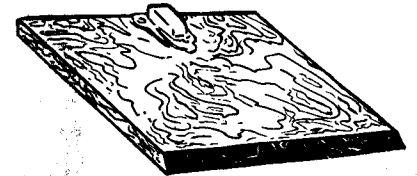
No. 30-4328  
Base Rubber  
Foot



No. 30-3319  
Speaker Case  
Rubber Bumper



No. 30-5116  
Case Cover



No. 30-3020  
Speaker Door

Bottle, Type B  
Shuttle and Cam  
Lubricant

Bottle Type B  
General Purpose  
Oil

# *Your* **GUARANTEE CERTIFICATE**

## *Important*

Be sure to fill out your Owner's Purchase Report card in full and mail within ten days; by doing so you assure yourself of full guarantee privileges. It constitutes a permanent record of ownership in case of loss or theft and registers your address, so that timely bulletins and information can be supplied for your help and guidance.

●

Is your film clean? Dirty film causes abrasive dust to collect in the aperture and film channel; scratched film and worn parts will result. Ask your dealer about film cleaning preparations, methods and equipment.

**MOVIE-MITE CORPORATION**

1105 E. 15th St.

Kansas City 6, Mo.

1M-63LM-1-50

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