

OPERATING INSTRUCTIONS VICTOR ANIMATOPHONE

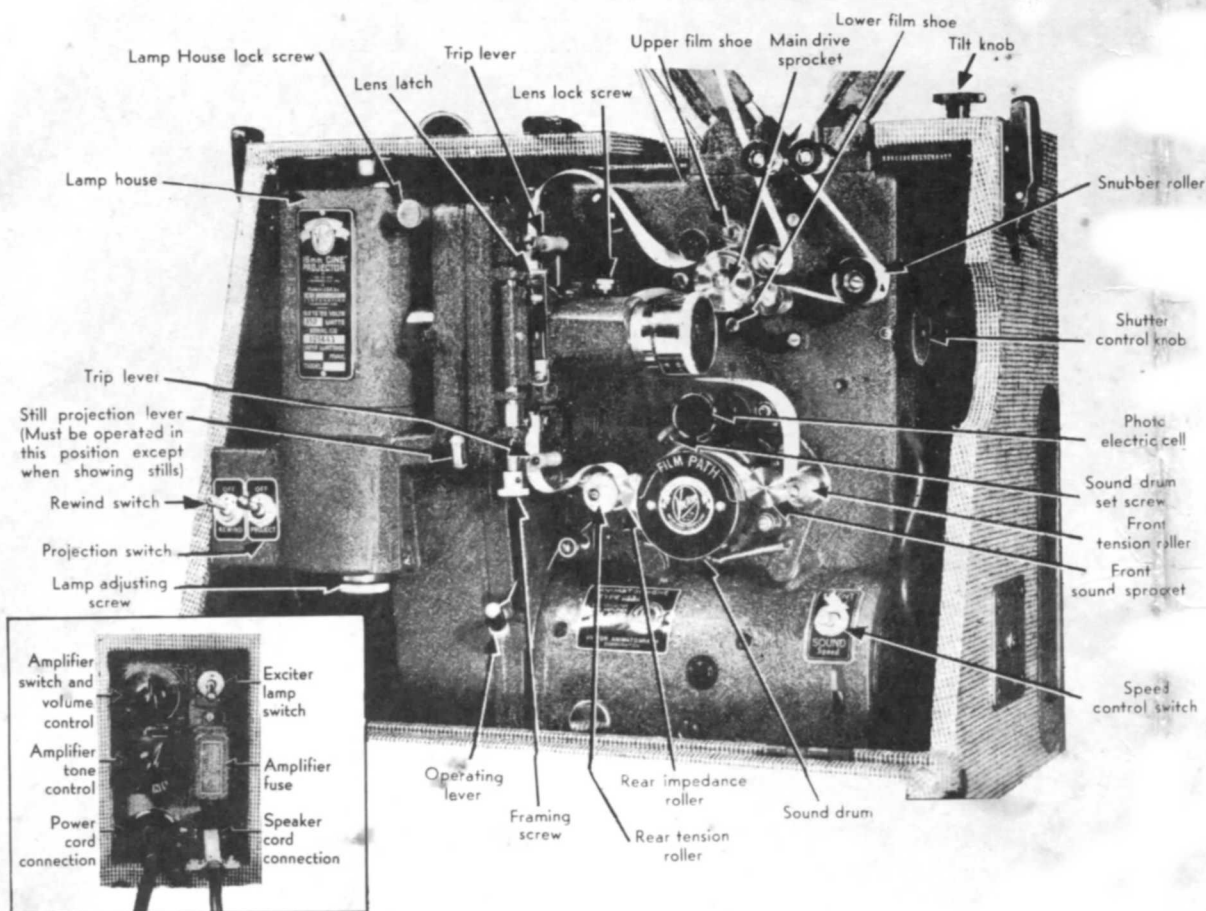


ILLUSTRATION A

The above Animatophone illustration shows the route of film travel, as well as nomenclature of important parts.

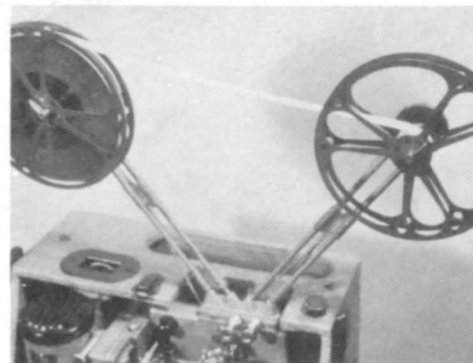
Illustrations starting at the right, from No. 1 to No. 16 inclusive, show correct film threading procedure. Illustrations No. 17 to No. 26 inclusive, show proper operation of the projector.

SETTING UP — Remove reel arms from bottom of case, placing in front and rear sockets so that shafts point toward operator. Place take-up belts on reel arm pulleys so that nearest, or inside belt, goes to rear arm and back, and outside belt goes to front arm. Both belts must be crossed. Use small pulleys for 400 ft. reels and large pulleys for all other reels of greater capacity.

Refer to Illustration A and plug in power and speaker cords. (Animatophone operates on 100 to 120 volts, 50 or 60 cycle alternating current only. Direct current requires rotary or vibrator converter, 150 watt capacity, to operate amplifier.

Motor and lamp, being universal, will operate on A. C. or D. C.) Insert other end of speaker cord in either of two sockets in speaker. When more than one speaker is employed, the additional speaker cord is inserted in the remaining socket. The impedance matching pin adjoining is also relocated from the No. 1 position **in all speakers** to correspond with the number of speakers used, up to four.

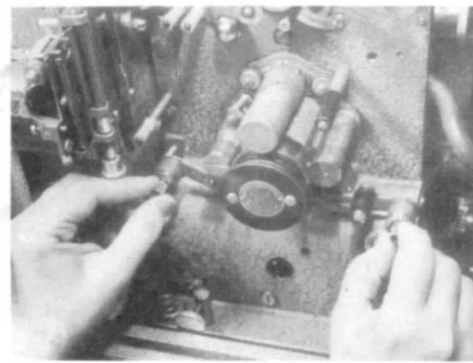
Turn on amplifier volume control, press down exciter lamp switch and set amplifier tone control at 45 degree position, thereafter adjusting volume and tone as required.



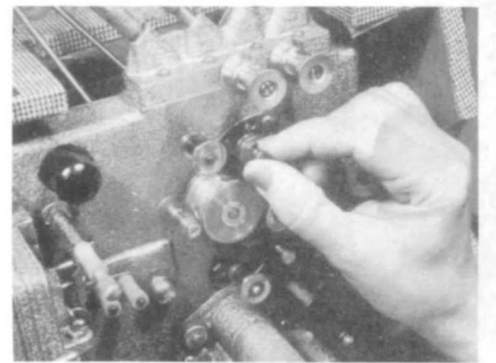
1. Place full reel on rear arm (with sprocket holes toward operator) and insert end of leader into hub of empty take-up reel.



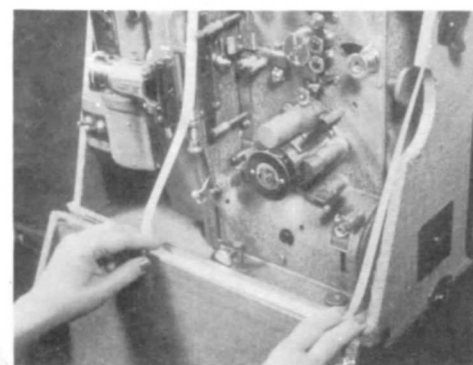
2. Open swing-out lens by pulling on release latch shown at index finger.



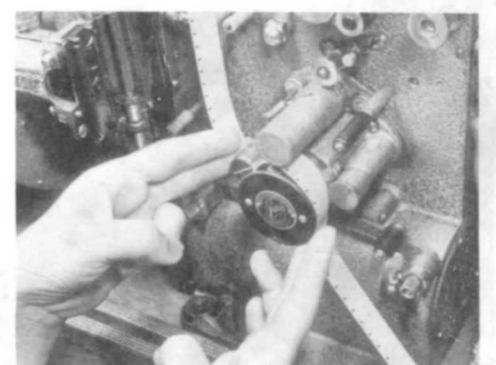
3. Open front and rear tension rollers.



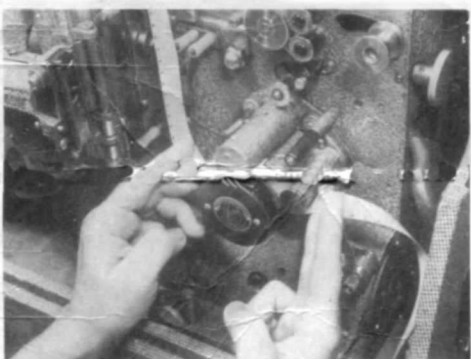
4. Open bottom and top film shoes by pulling out center pin and lowering and raising respectively.



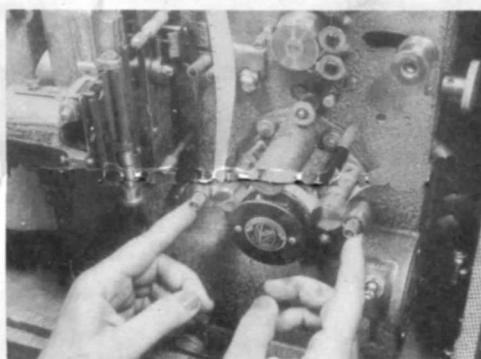
5. Pull enough film off rear supply reel to provide approximately the amount shown across bottom of case.



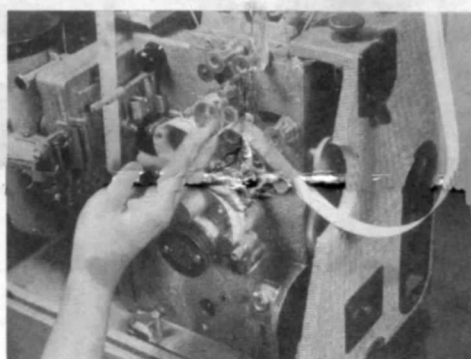
6. With surplus film to the right, slide film over sound drum diagonally as shown.



7. Complete threading over sound drum and engage film sprocket holes with front sound sprocket teeth. (Rear impedance roller has no teeth.)



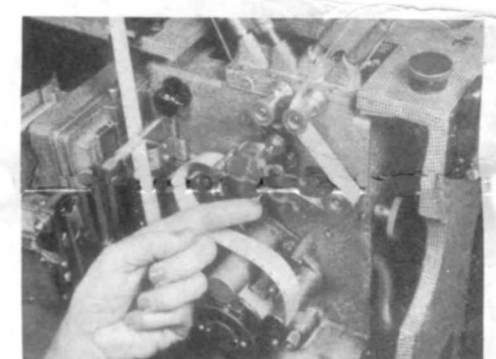
8. Close front and rear tension rollers by raising each.



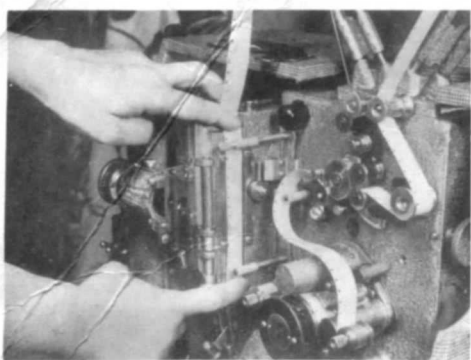
9. Grasp film about five inches beyond case as shown and . . .



10. . . . move film horizontally to bottom of sprocket, threading between trip levers and under sprocket.



11. Close bottom film shoe by raising and observing that film sprocket holes engage sprocket teeth.



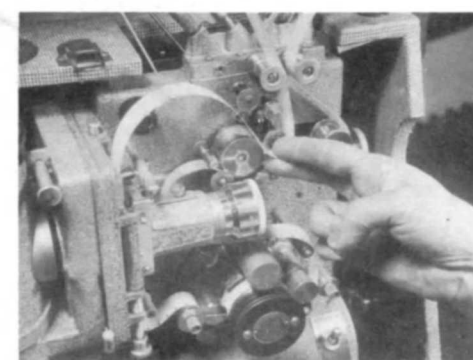
12. Thread into film channel and allow bottom loop the size of one finger below lower film trip. (The size of bottom loop determines accuracy of synchronization.)



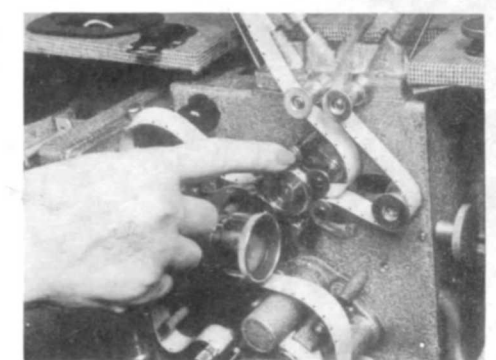
13. Close lens in manner shown.



14. Grasp film, as shown, in line with reel arm brace and . . .



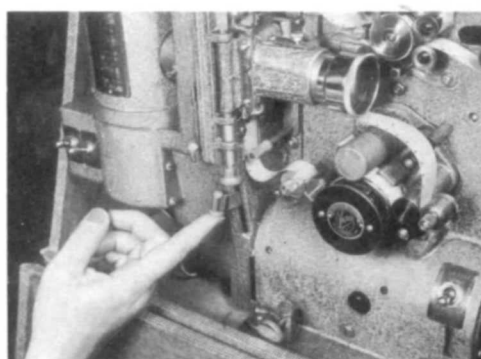
15. Pull down and thread over sprocket as shown.



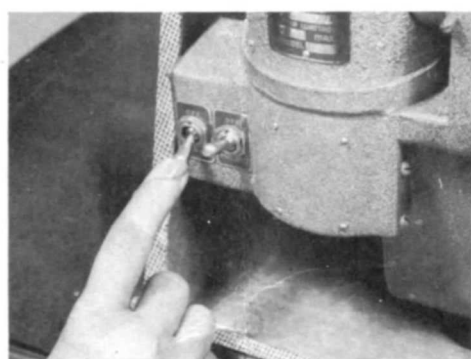
16. Close upper film shoe by pulling center pin and lowering and locking over film — being sure film engages sprocket teeth.



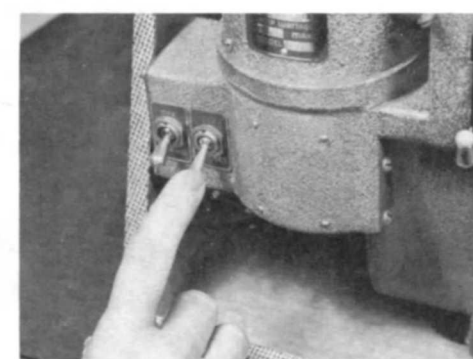
17. Move speed switch into silent or sound position.



18. Raise operating lever as far as it will go. (Note—when not in use, operating lever should be in down position.)



19. Press down Motor switch. (If operating lever trips, an error in threading is indicated.)



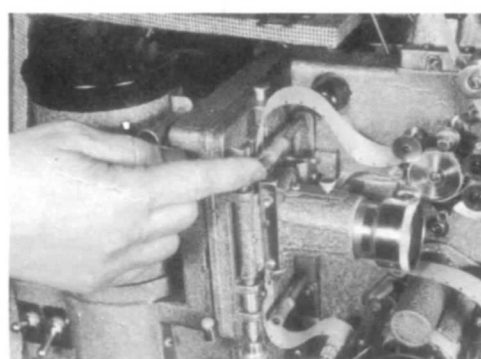
20. After film leader has passed aperture, press down lamp switch.



21. To focus image on screen turn lens until sharp; then tighten lens lock screw.



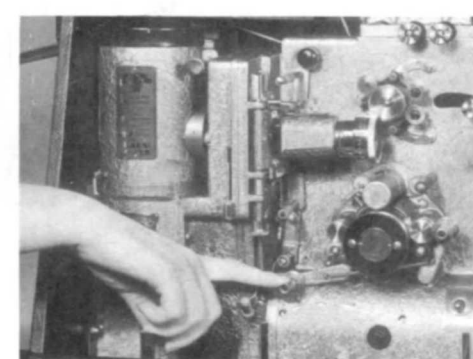
22. To frame picture on screen turn framing screw.



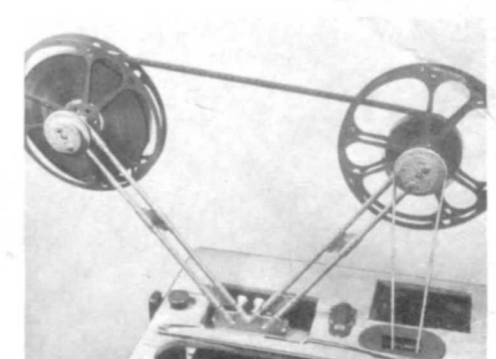
23. To stop projector press forward on upper trip lever.



24. To show a still picture stop projector (Ill. No. 23) and raise still picture lever. If no picture appears on screen, turn shutter shaft knob to open shutter. To resume projection, drop still picture lever and raise operating lever (Ill. No. 18).



25. To reverse, press down rear tension roller.



26. To rewind, thread film directly back to supply reel, remove take-up belts from pulleys and place rewind belt (not crossed) on LARGE rear pulley. Set at silent speed and turn on motor rewind switch.

CLEANING • LOCATING TROUBLE • Making REPLACEMENTS

KEEP YOUR PROJECTOR CLEAN . . . DIRT ENDANGERS FILM . . . IMPAIRS REPRODUCTION

★ GUARANTEE is not effective until registration card is mailed and acknowledged by actory. MAIL REGISTRATION CARD NOW

CLEANING

A scrupulously clean projector is a prerequisite to perfect showmanship. A clean optical system assures brighter, sharper pictures. A clean sound system assures crisp sound in greater measure. Clean film channels, sprockets and rollers prevent film scratching and unnecessary wear.

CLEANING OPTICAL SYSTEM

(EACH 10 HOURS OF USE OR OFTENER) (SEE ILLUSTRATION "A")

Remove lamp house and polish reflector and condenser surfaces with clean, soft, lintless cloth or chamois. Also polish projection lens. At all times avoid finger-marking lens surface since this will reduce illumination and picture definition.

CLEANING SOUND SYSTEM

5-HOUR CLEANING

(SEE ILLUSTRATION "B")

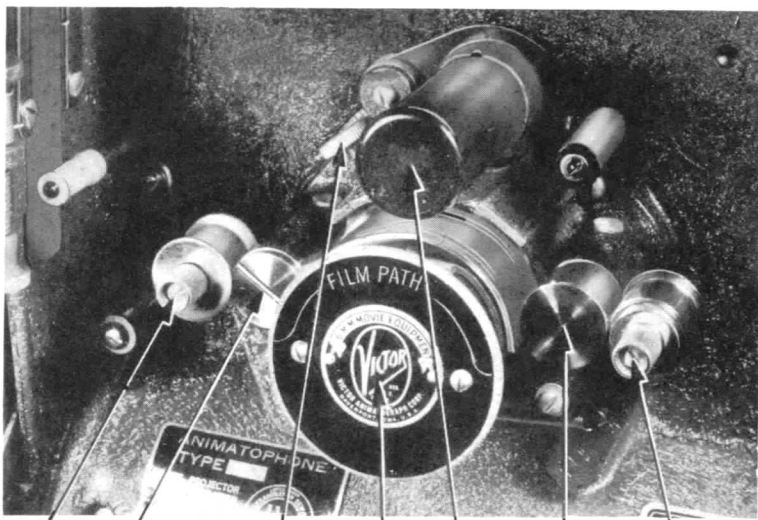


ILLUSTRATION B

Clean rear impedance roller and front sound sprocket, also front and rear tension rollers, using soft cloth. Oil or hardened film emulsion gum can be removed with carbon tetrachloride.

Loosen sound drum set screw and remove sound drum by pulling directly outward.

Refer to illustration "C". After wiping sound film channel, clean the film channel slot by inserting the doubled end of a pipe cleaner in the opening. Also clean lower side of sound lens inside the sound drum. Be sure no lint remains on lens or slot — blowing out if necessary.

In returning sound drum, be sure it is fully seated, all the way in and with the slot in top position.

50-HOUR CLEANING

(SEE ILLUSTRATION "C")

Remove sound drum as above. Remove screws "A" and "B". Thereafter lift off sound film channel and sound lens assembly and place in inverted position. Next remove screws "C" and "D" and lift out sound lens unit.

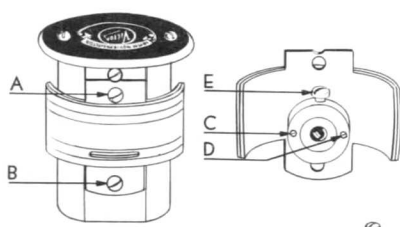


ILLUSTRATION C

WARNING — Do not tamper with or loosen screw "E". To do so will necessitate return of entire assembly to the nearest Victor Service Center for resetting of lens unit.

With a clean, lintless cloth, polish sound slit "F" by placing cloth over thumb-nail. Also polish condenser lens "G". (If sound lens unit is oil soaked, entire unit should be sent to nearest Victor Service Center for cleaning.)

Reassemble sound unit and sound drum being careful to have slot in sound film channel nearest screw "B" as shown.

OILING

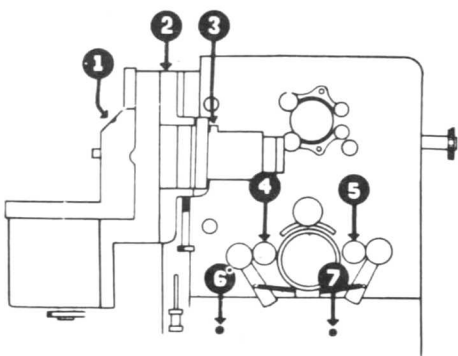
More service problems result from over-oiling than under-oiling. Excess oil clogs the light slit of the sound lens, gums the brushes of motor and governor commutators and destroys wire insulation. This results in loss of sound quality, irregular speed and short circuiting of electrical components.

For this reason the oiling schedule as follows is recommended:

Oiling Points

- 1, 2 and 3 — Four drops every three hours of running.
- 4 and 5 — One drop every ten hours of running.
- 6 and 7 — Two drops every four hours of operation.

All oiling points should likewise be oiled as above after prolonged periods of idleness.



CLEANING CHANNELS AND ROLLERS

BEFORE EACH SHOWING

(SEE ILLUSTRATION "D")

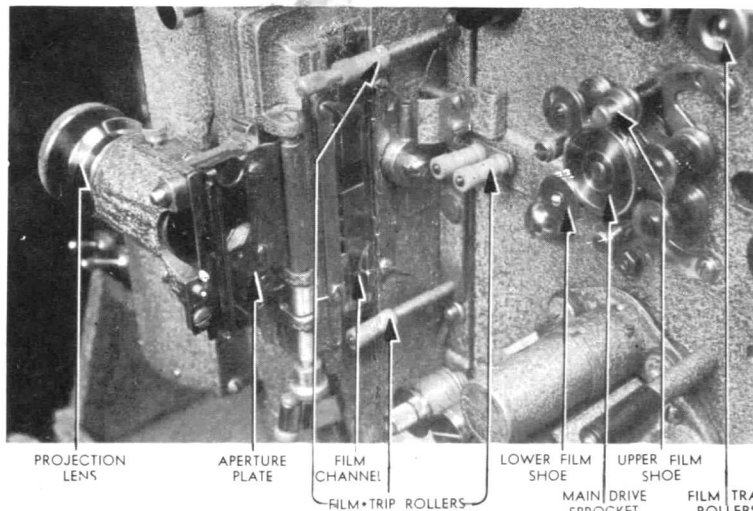


ILLUSTRATION D

Clean aperture plate and film channel. Victor's exclusive swing-out lens makes both surfaces instantly and completely accessible.

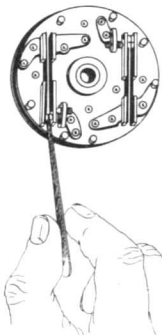
Cleaning may be accomplished with a cloth or chamois but the most convenient and practical method is to use the index or second finger to rub these surfaces clean and to also remove foreign accumulations at the picture aperture.

CAUTION: Do not use any metal instrument to clean the above or other film travel surfaces.

Keep film trip rollers and upper and lower film shoes clean. See that film shoe rollers and film trap rollers operate freely.

CLEANING GOVERNOR

(SEE ILLUSTRATION "E")



Dirty or pitted governor breaker points will cause motor speed fluctuations resulting in sour, uneven sound, most noticeable in sustained musical instrumental notes.

Access to governor is gained through perforated grill-covered opening in bottom of projector case directly under motor. Rest projector on side and partially remove grill.

Two sets of breaker points are on governor commutator. One set has stiff tension and controls sound speed. The other with soft tension controls silent speed.

Separate the former breaker points with small thin screwdriver. Then insert very fine flat file (preferably breaker-point file), remove screwdriver and smooth surfaces with several strokes of file. **File only enough to remove roughness.** Motor results using motor switch only. **Do not turn on lamp while projector is on side.** Disconnect power cord while working on governor.

TROUBLE LOCATING CHART

	Bad Image	No Picture on Screen	Sour Sound	No Sound	Noisy Sound	Sound Not Clear	Sound Too Loud	Wreak Picture
Dirty, Worn, Scratched Film	X				X	X	X	X
Still Picture Lever Raised	X							
Dirty Optical System	X							
Too Much Extraneous Light	X							
Low Line Voltage			X				X	
Power Cord Too Small or Defective	X		X				X	
Old Projector Lamp	X							
Lamp Burned Out	X							
Lamp Switch Off	X							
Faulty Room Acoustics					X	X		
Poor or Dirty Screen	X							
Dirty Sound Lens						X	X	
Speed Switch in Silent Position		X						
Tone Control Set Too Low						X		
PE Cell Control Set Too Low				X			X	
PE Cell Control Set too High					X	X		
Dirty or Pitted Governor or Points			X					
Defective Amplifier Tube				X	X		X	
Exciter Lamp Burned Out				X				
Old Exciter Lamp					X	X	X	
Amplifier Fuse Burned Out				X				
Speaker Not Connected				X				
Speaker Grill Covered						X	X	
Exciter Switch Turned Off				X				
PE Cell Dead				X				
Sound Drum Not Seated				X				
Rear Impedance Roll Stuck		X				X		
Dirty Motor Commutator		X			X			
Loose or Broken Speaker Cone					X	X		
Speaker Location Too Low						X	X	
Damaged Sprocket Holes or Green Film								X
Amplifier not Turned On				X				
Speaker Cable Broken				X				
Defective Photo Cell								X

IF DIFFICULTY ENCOUNTERED CANNOT BE CORRECTED WITH THE AID OF THE ABOVE, ANIMATOPHONE SHOULD BE REFERRED TO AN AUTHORIZED VICTOR SERVICE CENTER.

ADJUSTING PHOTO CELL VOLTAGE

(SEE SLOTTED PHOTO CELL VOLTAGE CONTROL ON RIGHT FRONT OF CASE)

With power and speaker connected but with no film in projector, turn amplifier volume control to maximum position. Also turn on exciter lamp. Using a small screw-driver or thumb nail, turn P.E. Cell voltage control to the right (clockwise) until excessive humming sets in. Then turn control back until humming is slightly reduced. Thereafter thread and project film, regulating volume with Amplifier volume control.

CAUTION: Excessive photo cell voltage results in objectionable background noise, distortion and also shortens cell life; when set too low, in loss of sound volume.



PUBLIC ADDRESS

(USE ONLY HIGH IMPEDANCE UNITS)

MICROPHONE: Plug into upper jack at front of Animatophone. Turn amplifier on full. Thereafter adjust volume with amplifier microphone control knob.

RECORD PLAYER: Plug into lower jack and adjust volume control with either amplifier or record player control knob. Turn off exciter lamp when using microphone or record player.

CARE OF FILM

Whenever possible avoid projection of dirty film. Dirt, oil and emulsion gum may be deposited on channels and rollers and eventually cause scratching. Dirty film will also result in reduced screen brilliance and definition as well as loss in sound quality and volume.

Immediately following the running of such film, carefully clean all film channels, rollers, trips, etc., preferably with carbon tetrachloride.

TO CLEAN FILM: Place film on rewind and draw it slowly between a soft lintless cloth or pads, well saturated with carbon tetrachloride. Frequently change cloth or pad surfaces and re-moisten with carbon tetrachloride as they become charged with film soil.

KODACHROME AND ANSCO COLOR FILM: Use same procedure as above, but with only a small quantity of carbon tetrachloride since it has a tendency to soften the emulsion of Kodachrome and Ansco Color Film.

"GREEN" OR FRESH FILM: Occasionally new prints just out of the processing laboratory are "green" — a condition of stickiness which may cause "jumpy" pictures, loss of loop or noisy projection. The same condition may occur with films which have been over-humidified.

Such film may be conditioned by exposure of the reel to air for at least twelve hours for partial drying. Another expedient is to run the film through the Animatophone at 16 frame silent speed, with projection and exciter lamps on, and with projection lens gate open.

FILM PRECAUTIONS: Don't allow film to remain on projector after showing. Always immediately replace in film can.

Don't pull end of film to tighten on reel since this may result in scratch. Never place films on radiators thus causing drying and consequent warped, brittle film.

Always keep spare take-up reels clean and in dustproof container, also remove any dust on inside reel surfaces before using. **Dust transferred to film and film channels causes scratch.**

Avoid using bent reels and thus prevent film take-up difficulties.

REPLACEMENTS

PROJECTION LAMP — Loosen lamp house lock screw, then lift lamp house up and off. Press down and turn lamp counter clockwise one-quarter turn and lift out. Place new lamp so wings coincide in size and position with slots in base, press down and turn right one-quarter turn, as far as lamp will go. Polish lamp surface, also reflector and condenser before replacing lamphouse. Replace lamphouse, fully seating into flange at base. Test for rigidity and thereafter tighten lock screw.

ALIGNING NEW LAMPS — Without film, project light onto screen. If unevenly illuminated, loosen lamp adjusting screw and move until light on screen is free from objectionable streaks. Then lock adjusting screw.

EXCITER LAMP — Loosen sound drum set screw and pull out sound drum. Press in and turn exciter lamp slightly to left and remove. To install new lamp, insert so that holes in base collar coincide with lock pins, press in and turn to right as far as it will go to lock securely in proper position. Always keep a spare exciter lamp on hand. Specify GE, T-8, 5V.6.5 Amp., Prefocused.

PILOT LAMP — Unscrew cap, press in and turn lamp slightly to left to remove. Insert replacement (GE T-3 1/4, 5V. bayonet base.)

PHOTO CELL — Remove metal cover by pulling outward. Thereafter, carefully pull straight outward on photo cell. CAUTION: Do not use oscillating movement since cement seal in base is apt to become damaged. To replace, match prongs on cell base to those in socket and insert. Keep an extra cell on hand.

AMPLIFIER FUSE — Remove metal cover (Illustration "A") and replace fuse. CAUTION: Use only 2 amp. fuse. Heavier fuse may result in serious amplifier damage.

AMPLIFIER TUBES — All tubes are standard radio tubes, keyed to tube sockets in amplifier base. Sockets are numbered to correspond with the numbers of the tubes which they accommodate. Match numbers before attempting to insert tubes. Also match prongs with holes in socket and push tube down. Do not force tubes into position. If force is required, prongs and holes probably do not coincide, and amplifier will not function with jammed tubes.

TABLE OF IMAGE SIZES

Focus of Lens	DISTANCE BETWEEN PROJECTOR AND SCREEN (IN FEET)										
	5	10	15	20	30	40	50	60	70	80	100
1 1/2"	1'4"	2'11"	3'11"	5'2"	8'2"						
2"	1'0"	1'11"	2'11"	3'11"	5'10"	7'10"	9'9"				
2 1/2"		1'7"	2'4"	3'1"	4'8"	6'3"	7'10"	9'4"			
3"		1'4"	1'11"	2'7"	3'11"	5'2"	6'6"	7'10"	9'1"	10'5"	
3 1/2"		1'1"	1'8"	2'3"	3'4"	4'5"	5'7"	6'10"	7'10"	8'11"	
4"		1'	1'6"	1'11"	2'11"	3'11"	4'11"	5'10"	6'10"	7'10"	9'9"