

# Leslie<sup>®</sup>

SPEAKERS  
OWNER'S MANUAL  
INTRODUCTION

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Document 100620, 20 July 1971

The LESLIE Speaker Model 950 is a single channel unit with four heavy duty, extended range, 12" loudspeakers. It is rated at 200 watts RMS output. The 950 may be connected to many console type organs with the same LESLIE console connector kits used for models 900 and 925. . Combo organs and other instruments must be connected by means of the Deluxe Combo Preamp. (Specify the 7420 Connector Kit when ordering.) Model 950 can also be used in conjunction with LESLIE models 900 or 925 by means of an existing Deluxe Combo Preamp, or by connecting the 950 to the model 900 or 925 with power relay No.02I709 for 117V installations; No. 047738 for 234V/250V installations.)



With a total output of 200 watts RMS, the 950 has ample power for matching the output of other combo amps on stage. But its uniqueness lies in its three-way light show, which is described below. When setting up the speaker, consider the audience. The acoustical reflectors on either side of the model 950 rotors are designed to direct all sound straight ahead. Furthermore, turning the 950 to either side will partially obscure the audience~ view of the rotors.

Volume control adjustment is also important, and for three reasons:

- A. To prevent speaker distortion which could result in speaker damage,
- B. To provide adequate volume for flashing the ultraviolet lamps, hereafter referred to as blacklights

C. To balance 950 volume with the volume of other combo amplifiers..

The master volume control on the 950 power supply should be adjusted exactly as explained in the MASTER VOLUME CONTROL ADJUSTMENT section of this manual. This single control adjusts the volume of all four amps simultaneously.

There is also a special lamp sensitivity control on the rear of. the anodized aluminum lower back panel.

It controls the brilliance and frequency of the black light flashes when they are operating. Referring to the Block Diagram, note that the incoming instrumental signal passed through the Deluxe Combo preamp or console connector to the master volume control, which is an emitter. follower preamplifier. Output from the master volume control is further amplified by amps "A","B","C" and "D", which power the four 12" speakers mounted behind the rotors. Part of amplifier "D's" signal output passes through the lamp sensitivity control to trigger the blacklights at either side of the rotors. The REV/AUX control of the

connecting device operates these blacklights. Lamps will be off when the REV/AUX control is switched to OFF; lamps will flash intermittently in response to both pitch and volume of the incoming musical signal when control is switched to MEDIUM; lamps will stay on at full brilliance when control is switched to FULL.

Rotor speed control circuitry is switched by the tremolo control(s) at the connecting device. The rotors may be driven at fast (tremolo), slow (chorale) speed or stopped completely.

#### BLOCK DIAGRAM: LESLIE SPEAKER MODEL 950

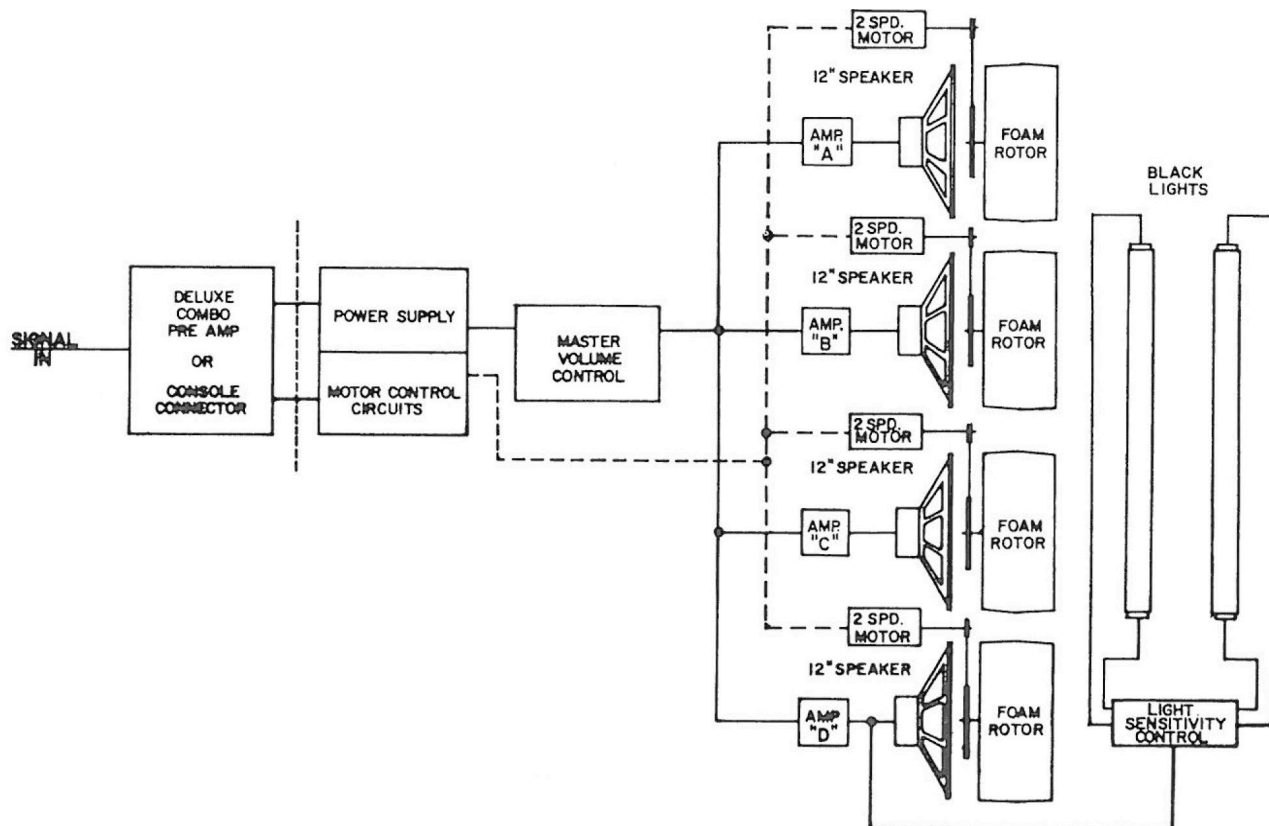


FIG. 1

The rotor discs/which are printed in fluorescent inks, are designed to produce a myriad of stroboscopic patterns under different lighting conditions. Three kinds of strobe light shows are possible with the model 950 speaker: external strobe light, blacklight, or blacklight with external strobe. of course the appearance of the discs in normal room light or daylight is still another effect which is completely usable.

**DAYLIGHT MODE:** Operate the cabinet in a normally lighted room or outdoors. The REV/AUX control should be switched to OFF.

**EXTERNAL STROBE LIGHT MODE:** (External strobe light is not included with model 950): Turn off or dim all room lights and aim a strobe lamp at. the speaker with the REV/AUX control ----cont. next page

switched off. Vary the flashing rate of the strobe lamp to produce various patterns on the rotors.

**BLACKLIGHT MODE:** Turn off or dim all room lights. Switch the REV/AUX control to MEDIUM to flash the blacklights when the instrument is playing. Switching the REV/AUX control to FULL activates the blacklights continuously, regardless of the musical volume. In the blacklight mode, speaker volume and lamp sensitivity must be adjusted correctly. First, adjust the master volume control on the power supply. Then adjust the lamp sensitivity control on the 950's anodized aluminum lower back panel. (See MASTER VOLUME CONTROL ADJUSTMENT AND LAMP SENSITIVITY CONTROL ADJUSTMENT sections in this manual.)

**BLACKLIGHT WITH EXTERNAL STROBE MODE:** Some of the most striking visual effects are produced as follows: Aim a strobe lamp at the rotors with the REV/AUX control in MEDIUM position. Vary flashing rate of the strobe lamp to produce various patterns on the rotor.

**MASTER VOLUME CONTROL ADJUSTMENT:**

**WARNING:** Do not adjust volume high enough to permit speaker distortion. Severe speaker damage may result.

**VOLUME ADJUSTMENT WITH CONSOLE ORGANS:**

1. Turn master volume control up 1/4 turn from full counter-clockwise position.
2. While holding a full chord and pedal note with expression pedal fully depressed, have someone adjust 950 volume control for desired speaker volume.

**VOLUME ADJUSTMENT WITH COMBO ORGANS & OTHER INSTRUMENTS:**

1. Turn master volume control up 1/4 turn from full counterclockwise position.
2. **COMBO ORGANS:** Hold chord and pedal note with expression pedal fully depressed.  
**OTHER INSTRUMENTS:** Play a chord with instrument volume on full
3. While playing have someone increase volume at the Deluxe Combo Preamp until speaker distorts. Then back off controls until distortion just disappears.
4. While still playing, have someone adjust 950 master volume control for desired speaker volume.

**LAMP SENSITIVITY CONTROL**

Blacklights are mounted at either side of the rotors. The frequency and intensity of their flashing is controlled by the organ or instrumental signal introduced. There is a lamp sensitivity control located at the rear of the 950 on the anodized aluminum lower back panel. This control adjusts the brilliance and frequency of the light flashes.

However, because instrument signal volume as well as frequency triggers the blacklights, the master volume control on the 950 power supply must be adjusted per instructions before adjusting the lamp sensitivity control.

For the most striking light flashing effects, play bass notes while adjusting the lamp sensitivity control. With organs, a good place to begin would be to play pedal and left hand notes. When the lamp sensitivity control *is* turned counter-clockwise, the blacklights will become brighter as they become more *sensitive* to musical volume. Experiment! There are a tremendous variety of patterns which can be created by various types of organs and other musical instruments.

## LAMP SENSITIVITY CONTROL ADJUSTMENT

First make sure the 950 speaker volume *is* correctly adjusted. Then:

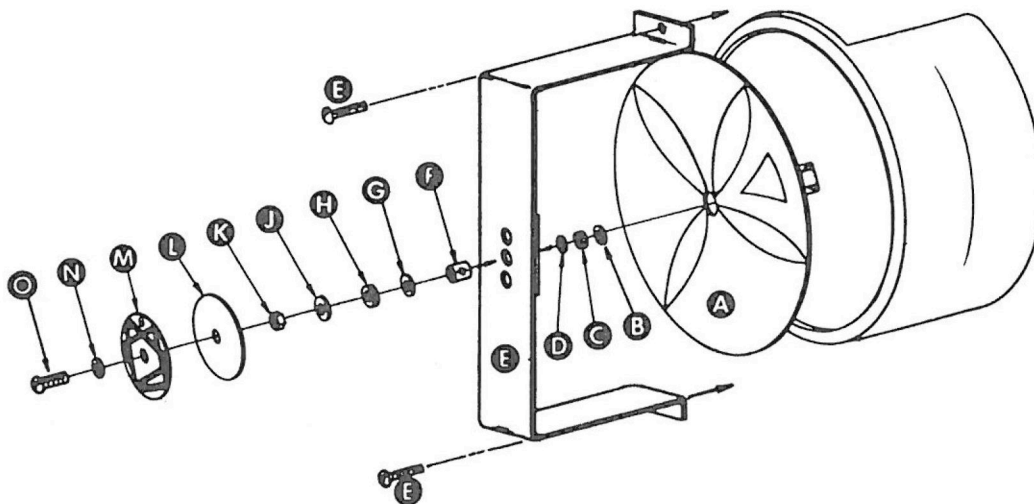
1. Switch REV/AU X control to MEDIUM.
2. Switch tremolo control to FAST or TREMOLO position.
3. While playing bass notes on the instrument at normal volume, have someone adjust this control for the desired blacklight flashing effects.

## REPLACING THE ROTOR DISCS

The small and large paper discs may be removed and replaced by disc patterns of your own design. Guidelines for disc design maybe found *in* books on stroboscopic photography. Use figure 2 as a guide when replacing rotor fastening hardware. After disc *is* removed, clean off its mounting surface with kerosene or paint thinner. Do not permit solvent to come *in* contact with the foam portion of the rotor. The rotor will disintegrate. Use lapidary cement if possible. otherwise, use a rubber base cement to adhere the paper disc to its mounting surface.

- |                                   |                     |                        |
|-----------------------------------|---------------------|------------------------|
| A. Large Disc                     | F. Sleeve Bushing   | L. Aluminum Rotor Disc |
| B. Flat Washer                    | G. Shim Flat Washer | M. Color Disc          |
| C. Felt Flat Washer               | H. Felt Flat Washer | N. Lockwasher          |
| D. Shim Flat Washer               | J. Flatwasher       | O. Screw               |
| E. Front Rotor Support,<br>Screws | K. Hex Nut          |                        |

Fig. 2



# SPECIFICATIONS

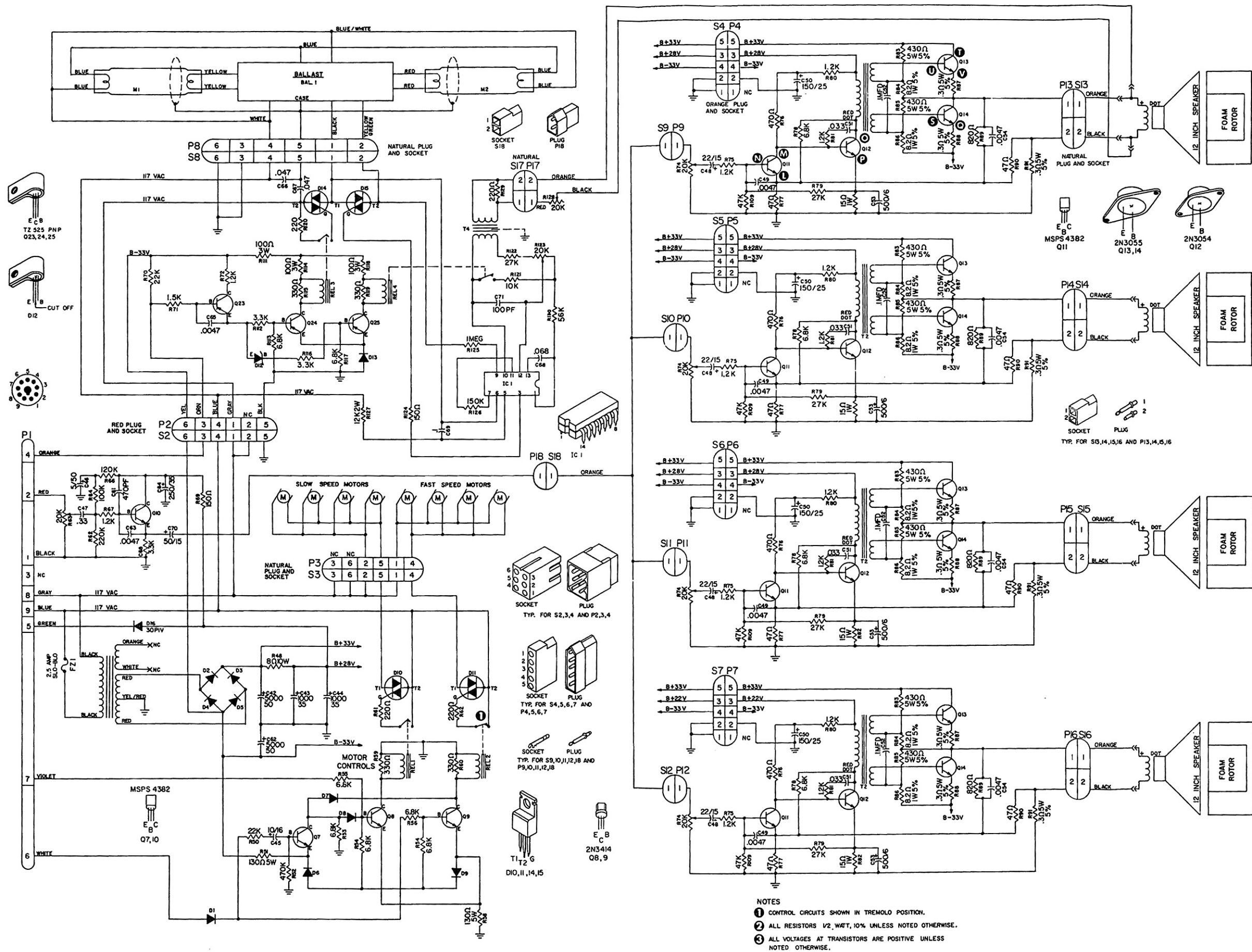
Cabinet Finish:	Cabinet <i>is</i> covered <i>in</i> black Levante leatherette. Easily washable.
Cabinet Dimensions:	67-3/4" high, 36" wide, 23-1/4" deep.
Blacklights:	Two long wave GE-F40-BLB ultraviolet lamps.
Speakers:	Four heavy-duty, extended range, 12" loud speakers, 16 ohm.
Amplifiers:	Four independent 50 watt RMS amplifiers. Total output: 200 watts "RMS.
Rotors:	Four foam units with disc mounting plates made of masonite. Rotors turn at approximately 390 RPM in tremolo mode; approximately 40 RPM in chorale mode.
Weight:	384 lbs net (with transportation panel) 421 lbs boxed for shipment.
Electrical:	Speaker available in 117V, 50 Hz or 60Hz models and a 234V/250V 50Hz model. Power Requirements (with blacklights operating) : 510 watts, 5.1 amps @117V, 50 or 60Hz 510 watts, 2.6 amps @ 234V/250V, 50Hz Fusing: 117V, 50Hz or 60Hz Models: 2-1/2 amp Slo-Blo 234V/250V, 50Hz Models: 1-1/2 amp Slo-Blo

## PREPARING SPEAKER FOR USE

After unboxing speaker, connect the Model 950 to the instrument by means of the appropriate console connector or the Deluxe Combo Preamp. Then adjust. the master volume control and the lamp sensitivity control as explained in this manual.

## SHIPPING THE MODEL 950 SPEAKER

Due to the speaker's heavy weight, we recommend moving the cabinet with a piano dolly, Roll-or-Kari, or equivalent. The transportation panel and dust cover should be in place.



LESLIE Speaker Model 950 Schematic