

Model 1100

Wall-Mount

Paging Amplifier

Owner's Manual



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Description:

The Models 1100 and 1100-10 are monaural solid state 10 watt RMS paging amplifiers. The units have three paging inputs and one music input that is automatically muted when a signal is present on any of the paging inputs. The paging inputs on the 1100 are configured as follows: a "Phone" input with 500Ω/600Ω transformer balanced isolation, a lo-Z (150Ω to 200Ω) balanced "Mic" input, and a "Aux" input for connecting high-impedance unbalanced sources. The 1100-10 is identical to the 1100, except that the 1100-10 has two balanced lo-Z mic inputs instead of one mic and one phone input. The music input is a high impedance unbalanced circuit with an input sensitivity of 250 mV, suitable for connecting to the output of a tuner or tape deck. All four inputs have individual level controls on the face of the unit, with screwdriver adjustable knobs to prevent tampering.

A "Tone" control is provided to compensate for characteristics of the speaker system or acoustic environment. In addition, a 6 dB boost has been incorporated into the music input to improve the system's performance with background music.

Power output terminals are available at 4 ohm and 8 ohm speaker impedances, as well as 25 volt and 70.7 volt constant voltage distribution levels. A booster amplifier output, marked "Boost Out" on the face of the unit, is provided so that supplemental amplifiers may be connected to the 1100 to deliver more power to additional speaker systems.

All controls and input/output terminals and jacks are located on the face of the unit. The Model 1100 is housed in a sturdy steel cabinet with two metal flanges that permit wall surface mounting. The unit operates from 120 volts A.C. 60 Hz, with a power consumption of 20 watts.

Unpacking:

The unit should be removed carefully from the carton and inspected for any possible damage in transit. If there is any evidence of damage which might have occurred in shipment, immediately notify your supplier or the transportation company which delivered it.

Claims for damage sustained in transit must be made upon the carrier. Save all packing material for the claim agent who will supply you with the proper forms and give you the necessary instructions for filling out a claim.

Installation:

This unit has ample vents for adequate ventilation; however, the unit must be installed with sufficient clearance around the cabinet to permit free air flow. Do not install the unit in a sealed box or cabinet without adequate ventilation. **DO NOT STORE OR OPERATE THE AMPLIFIER IN AREAS WHERE THE AMBIENT TEMPERATURE EXCEEDS 140° F.**

The amplifier has an AC power cord with a 3 prong plug. This cord should be plugged into a 3 wire circuit grounded 120 Volt

60 Hz outlet. **DO NOT REMOVE THE GROUNDING PIN FROM THIS PLUG** as it is the safety ground for the metal cabinet.

Connections:

All input and output connections are made on the face of the unit. The Aux input, Music input, and Boost output all use standard RCA female connectors, while the power amp outputs and the mic and phone inputs all use screw terminals for connection. The three metal clamps below the connector strips may be used to secure connecting cable to prevent damage.

The **Phone input** provides balanced 600 ohm termination for the paging access output port of registered equipment such as a PABX or switchboard. Connect the output port to the screw terminals on the 1100 marked "Phone" and "C.T." The C.T. terminal is the center tap of the transformer, and can be connected to the chassis ground terminal marked "GND" or to a "waterpipe" ground if induced line noise is excessive.

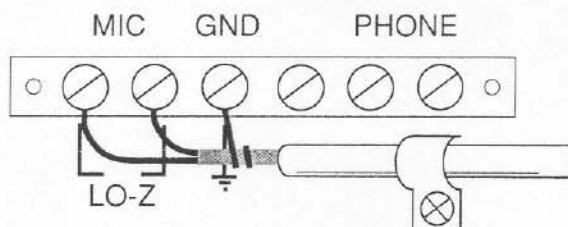


Figure #1: Connecting balanced microphone to 1100 Mic input

the terminals marked "LO-Z," and connect the shield of the cable to the terminal marked "GND."

The **Aux input** is an unbalanced high-impedance input with a maximum sensitivity of 250 mV, suitable for use with preamplified signals such as a mixer or intercom. Use a shielded RCA phono plug cable to connect to this input.

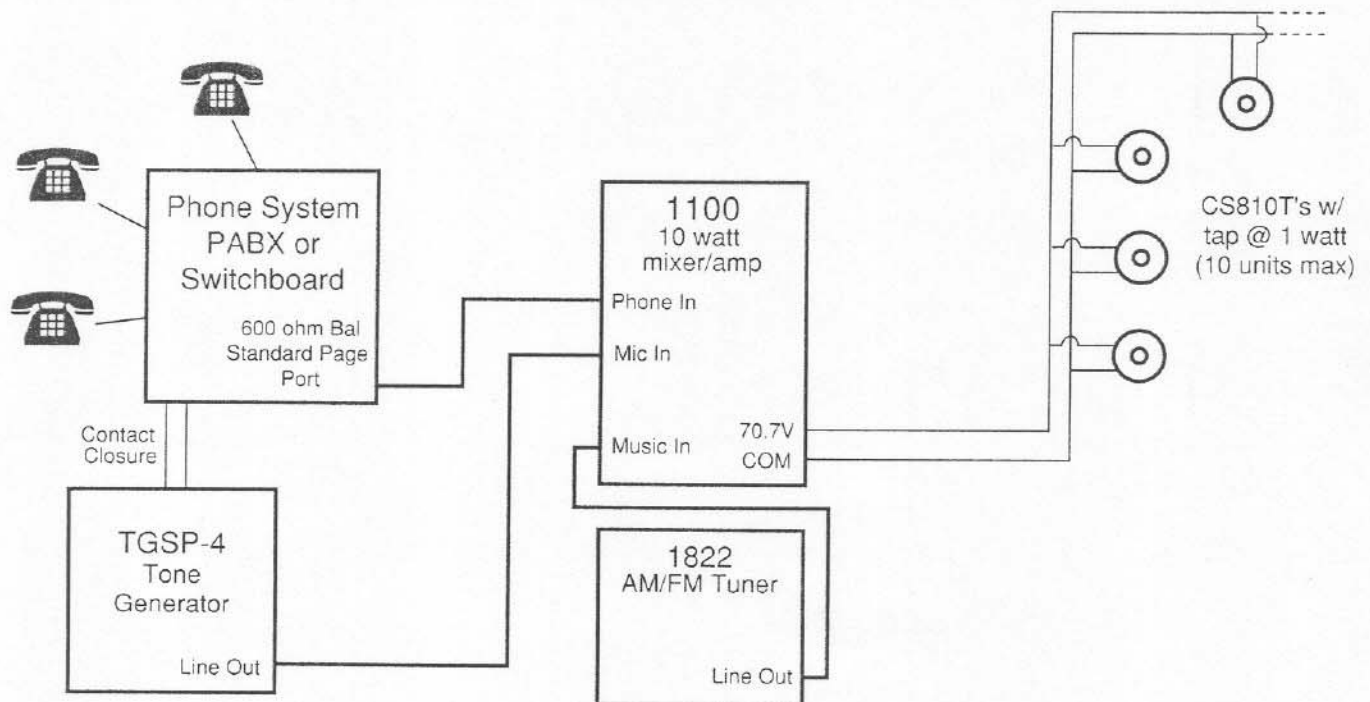
Power Amplifier outputs are available at 4Ω and 8Ω speaker line impedances or at 25 volt or 70.7 volt constant voltage levels. When connecting directly to speaker voice coils, use the 4Ω/8Ω terminals. Connect one speaker conductor to the GND terminal, and one conductor to the 4Ω or the 8Ω terminal, depending on the impedance of the speakers. Similarly, when using constant voltage speaker lines, connect one of the conductors to ground and the other to the

25V or the 70.7V terminal, depending on the rating of the speaker lines to be used.

Optimum performance of any amplifier depends upon proper impedance match between the output and the load. Connecting a load of mismatched impedance to an amplifier will deteriorate the overall performance of the system. For this reason, it is wise to use a speaker line impedance tester, such as the University Model LWT, to insure that the impedances of the amplifier output and speaker system are close in value. The LWT is also very useful in troubleshooting shorts in the speaker lines and wattage demand.

Specifications:

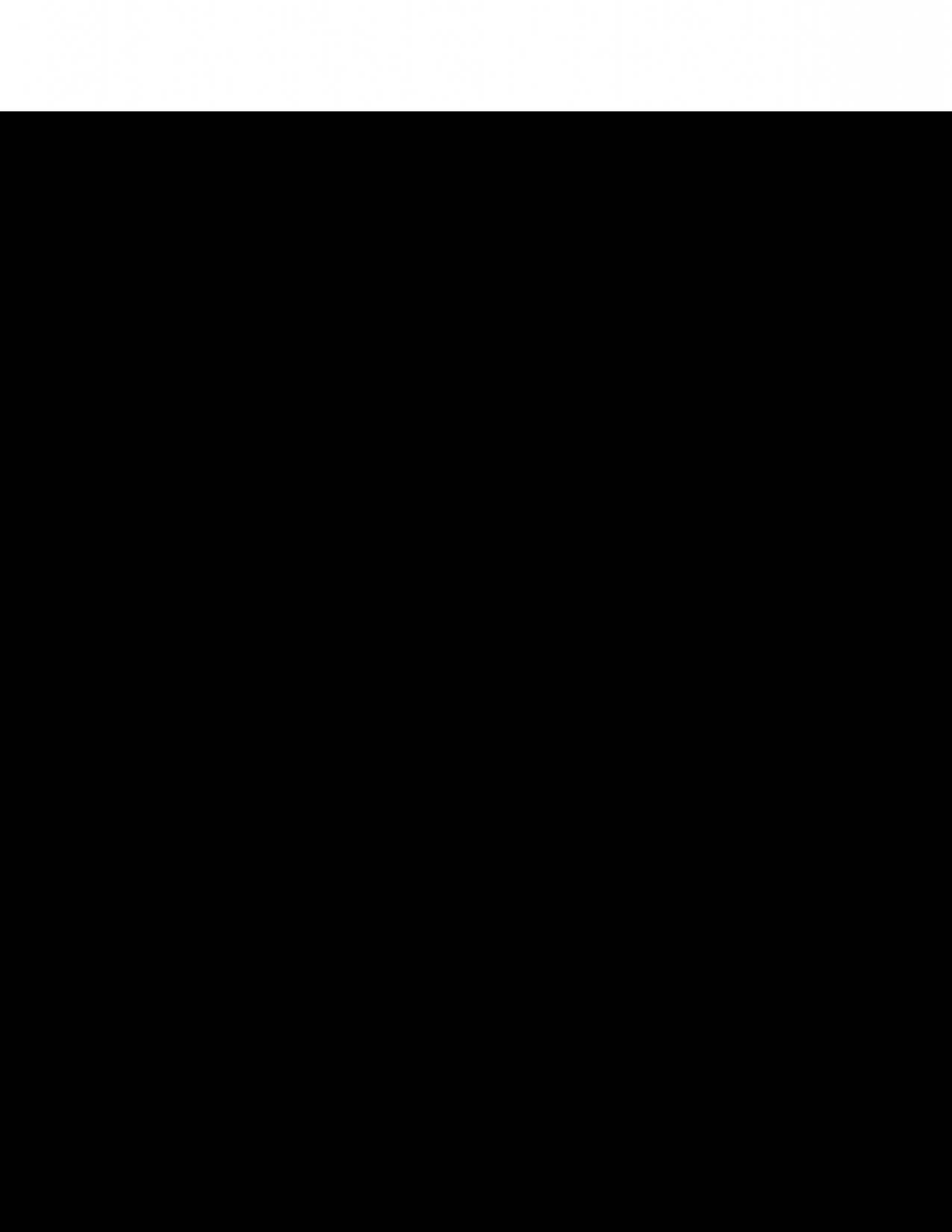
Power Output	10 watts RMS @ 1 kHz			
Frequency Response	50 Hz – 20 kHz, ± 2 dB			
Distortion	<0.5% THD @ 1kHz, 10 watts output			
Outputs	4 Ω and 8 Ω unbalanced, 25V and 70.7V unbalanced.			
Output Regulation	Less than 2 dB, no load to full load			
Tone Control	+0 dB to -20 dB @ 10 kHz			
Input Specifications:	Impedance	Sensitivity	Frequency Response	S/N Ratio
Aux	250K Ω unbal.	250 mV	50Hz – 20kHz, ± 2 dB	70 dB
Phone	600 Ω balanced	50 mV	400Hz – 6 kHz, ± 2 dB	71 dB
Mic	150 Ω balanced	0.5 mV	70Hz – 20kHz, ± 2 dB	58 dB
Music	200K Ω unbal.	250 mV	20Hz – 20kHz, ± 2 dB	71 dB
Protection	Internal Thermal Breaker			
Power Consumption	0.2 Amp, 120 volts AC 60 Hz, 20 watts			
Dimensions:				
Width	10.5" (266.7mm)			
Height	6.75" (171.5mm)			
Depth	3.0" (76.2mm)			
Shipping Weight	8 lbs. (3.6 kg)			

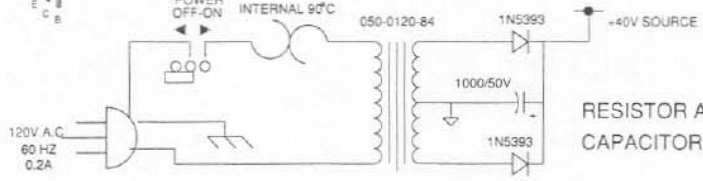
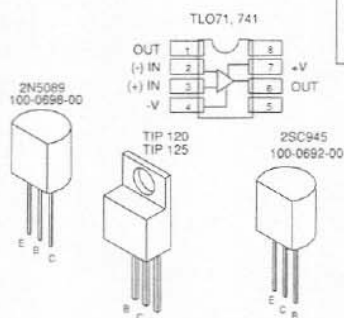
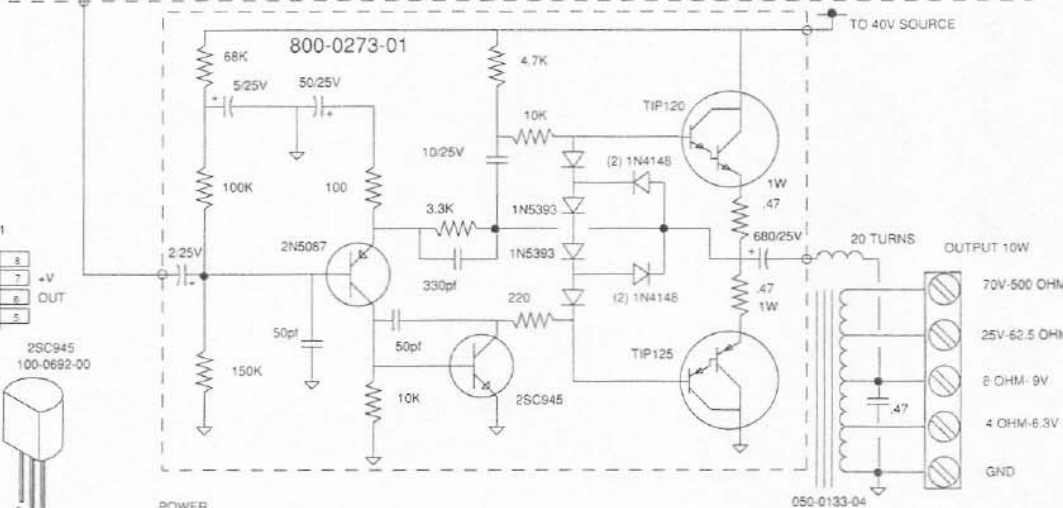
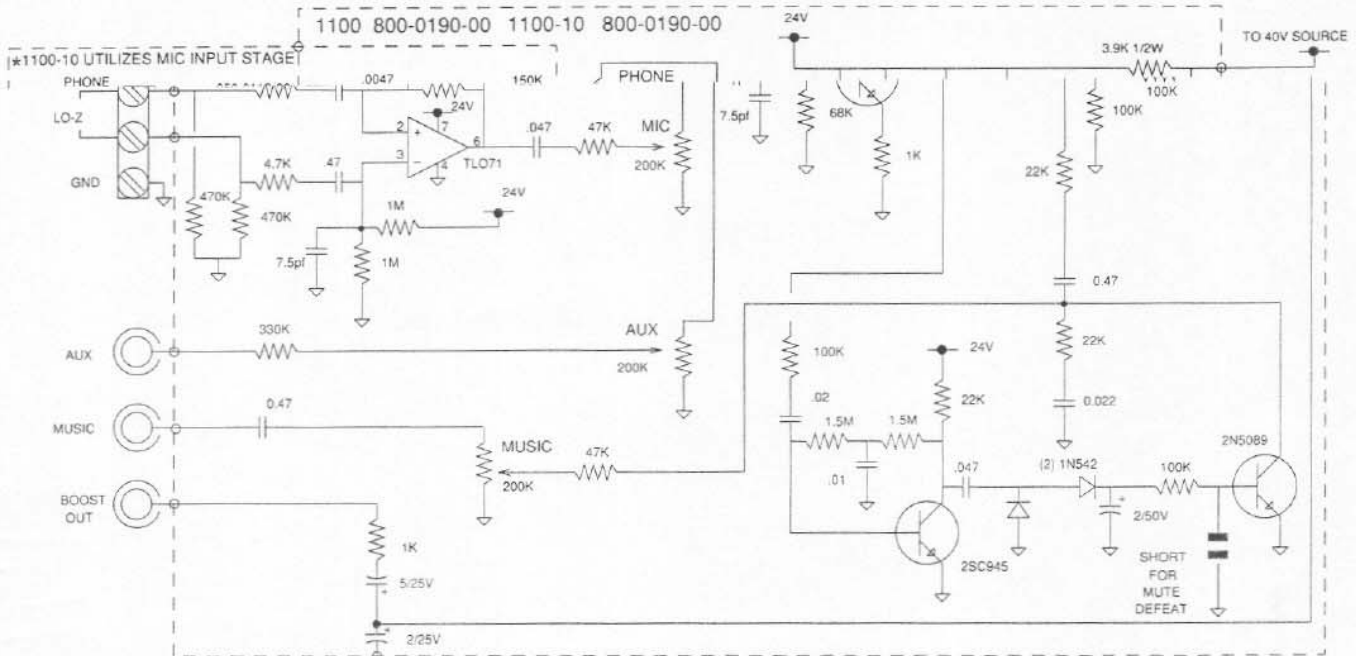


Application:

The above illustration shows a typical phone paging system incorporating the Model 1100. The phone input of the 1100 allows the unit to be directly connected to a PABX/PBX or other switchboard system with a 600 ohm balanced paging port. Some switchboard paging ports do not generate a paging alert tone of their own. In these situations, a University Model TGSP-4A Tone Generator can be activated by contact closure or "seizure" terminals from the switchboard. In the illustration above, the signal from the Model 1822 Tuner will be muted by a signal present on either the Phone In (switchboard) or the Mic In

(TGSP-4A) inputs on the Model 1100. The 1100 can drive up to ten CS810T ceiling speakers with the transformer taps set at 1 watt each. Using the constant-voltage (70.7V) power outputs, speakers can be added and removed without changing the speaker line impedance. However, the sum of the power ratings must be less than or equal to the rated output of the amplifier, and the speakers must be wired in parallel as shown. The system shown here would be adequate for small offices, but for larger installations, a booster amplifier can be connected to the "Boost Out" jack on the 1100, using a shielded RCA phono jack cable.





Warranty: These units have been very carefully inspected and are warranted to be free from defects in material and workmanship under normal use and service for a period of one year from sale to original purchaser. This warranty does not extend to any unit that has been subject to abuse, misuse, neglect, accident, improper installation, or alterations. The obligation of University Sound under this warranty is limited to the repair of any defect in material or workmanship and/or the replacement of any defective part, provided the unit is returned transportation paid within one year. It is recommended that any unit on which service is required be processed through your local distributor or installation company wherever possible. This Warranty is expressly in lieu of all other Warranties, expressed or implied, and of all other obligations or liabilities on our part. We neither assume for us any other liability in connection with the products manufactured by University Sound.

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