

OPERATING INSTRUCTIONS

Solid State
STEREO AMPLIFIER

MODEL **SAQ-202**

 **sound**

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SOLID STATE STEREO AMPLIFIER

The Model SAQ-202 is designed for stereo high fidelity reproduction from audio sources such as phono player, tape recorder and radio programs from tuner. Its compact size is ideal for space saving installation.

Instructions are given herein to achieve the maximum performance and enjoyment in listening.

INSTALLATION

Loudspeaker Selection:

Matched loudspeaker systems should be used for the best in stereo reproduction. These are preferably of the same type made by a reliable manufacturer. The power handling capabilities are important; each system must be designed for output of 10 watts of music power without distortion. Careful selection of the enclosures will assure the best results.

Ventilation:

Since solid state circuitry is used throughout, the heating effects are low. However, the amplifier should be kept away from direct sunlight or abnormal temperatures.

CONNECTIONS

AC Input Cord:

The amplifier is designed for AC operation, 50/60 c/s, and the power consumption is about 80 watts. The line voltage is 117 or 220/240 volts.

AC Outlet:

An AC outlet is provided for external equip-

ment such as a phono player, tape recorder, etc. This outlet is not fused, and connects directly to the load.

Fuses:

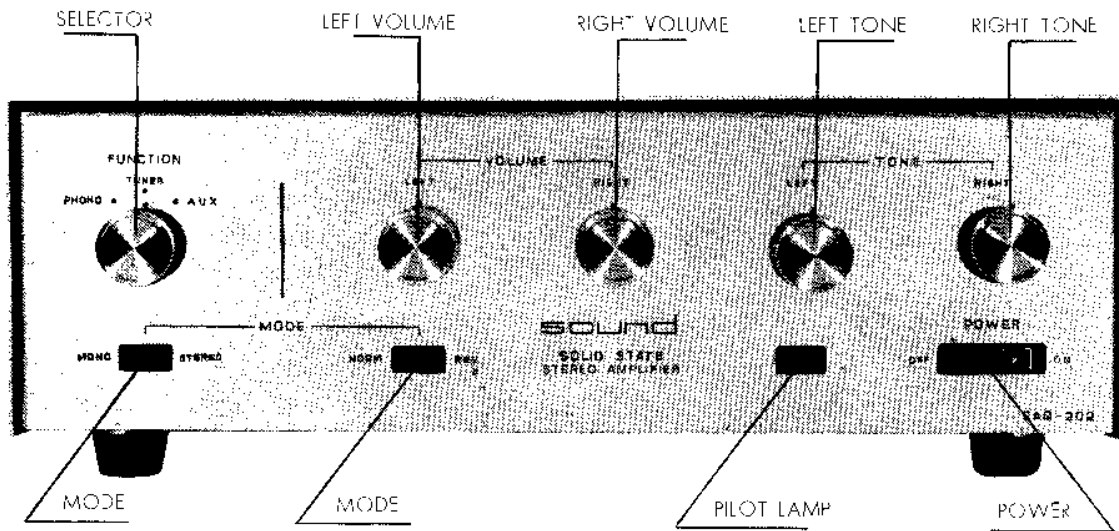
Fuses are included for the AC line and the output transistor circuits. The AC fuse rating is 1.5A for 117 volts.

The fuses in the output transistor circuits, R and L, are for protection of the transistors and loudspeakers against overloads. The rating is 1.5A and should never be replaced with those of higher ratings.

Loudspeaker Terminal Board:

The amplifier output is designed to match the 8 ohm loudspeaker systems. However, the 4 or 16 ohm units can be used without any loss in performance characteristics.

The leads from the left and right loudspeakers are connected to the L and R terminals on the board. These terminals are marked + and - so that the corresponding leads can be connected. This is very important for the proper phasing. The leads should be located away from the input cables to prevent possible feedback effects, such as howling, oscillation, etc.



IMPORTANT!!

Make certain that the connections have been made securely before switching the POWER to ON. If the loudspeakers are not in circuit, always connect an 8 ohm dummy resistor load to each pair of terminals. (Resistor rating — 50 watts each.)

For the phasing check, play a disc with much low tones. If the output from the loudspeakers has a "hollow" or unnatural effect, reverse the + and — connections on one of the units.

Pin Jack Connectors:

Three pairs of connectors, upper and lower rows, for the stereo inputs are provided.

PHONO: For crystal cartridge in the phono player.

TUNER: Output from the tuner.

AUX: Output from the preamplifier of the recorder or other sources with 100mV signals.

CONTROLS AND SWITCHES

The function of the various controls and switches will be described. It is advisable to be-

come familiar with their use in order to obtain the best results.

(1) SELECTOR

Three position switch for program selection

PHONO: For input from a crystal cartridge in the phono player.

TUNER: For input from a radio tuner.

AUX: For audio input from an auxiliary source, such as a tape recorder, TV audio output, etc.

(2), (3) VOLUME

For controlling the left and right channel output respectively, as indicated.

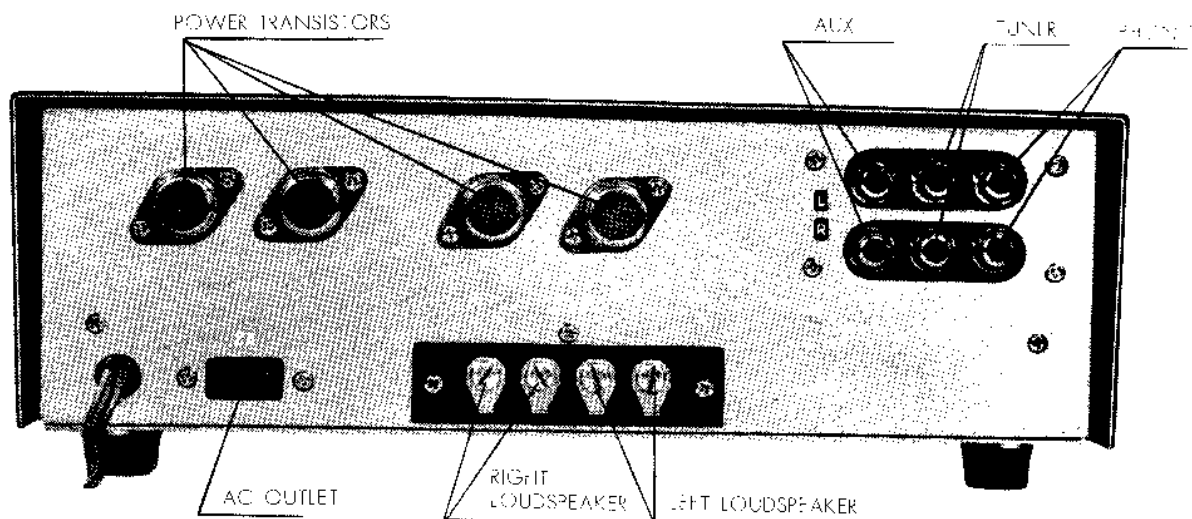
(4), (5) TONE

For controlling high and low of the left and right channel output respectively.

(6) MODE

For selecting the loudspeaker operation:

MONO. For monophonic input: both left and right channel inputs are combined and fed to both loudspeakers.



STEREO: Used for stereo reproduction, namely, the left and right channel inputs operate the respective loudspeakers.

NORM: Signals from left and right channels are reproduced by left and right speakers respectively.

REV: Process is reversed from NORM. Left signals are reproduced by right speaker and vice versa.

(7) POWER

Switch for connecting the AC power to the amplifier and apparatus connected to the AC outlet.

OPERATION

Before plugging the AC cord to the mains, check the input and loudspeaker connections to make sure they are not loose or disconnected.

Set the controls as follows:

POWER switch to OFF.

VOLUME controls full counterclockwise.

TONE controls at midposition.

SELECTOR to the desired program.

Connect the AC cord to the Mains and set the POWER switch to ON.

Stereo Inputs:

Set the MODE to STEREO.

Set the SELECTOR to one of the programs to be heard.

Adjust the various controls, VOLUME, etc., for the best listening conditions.

Monophonic Inputs:

When a monophonic input from a phono player, recorder, or tuner is used, this is connected to one of the respective connectors, left or right.

Set the SELECTOR to the corresponding input, and the program will be reproduced by both channels.

By setting the MODE Switch to MONO, the stereo input will be reproduced in the monophonic fashion, for example, a stereo cartridge can play the monophonic discs.

MODEL SAQ-202

SPECIFICATIONS

Power Output	10 watts each channel; music (20 watts total) 6 watts continuous at less than 2% harmonic distortion (12 watts total)
Frequency Response	±1 dB 30 to 20,000 c/s
Input	AUX: 100mV TUNER: 100mV PHONO: 100mV
Signal/Noise Ratio	55 dB } 6w output, Tone controls
Channel Separation	40 dB } at flat setting
Tone Control	-14 dB at 10 kc.
Output Connection	4, 8, 16 ohms each channel
Transistor Complement	4-2SB474 2-2SB56 4-2SB54 4-5GD
Power Requirements	117V/220V/240V 50/60c/s.
Dimension	9-3/4W X 3-3/4H X 6-3/4D in
Weight	6 lbs.

CIRCUIT DIAGRAM

