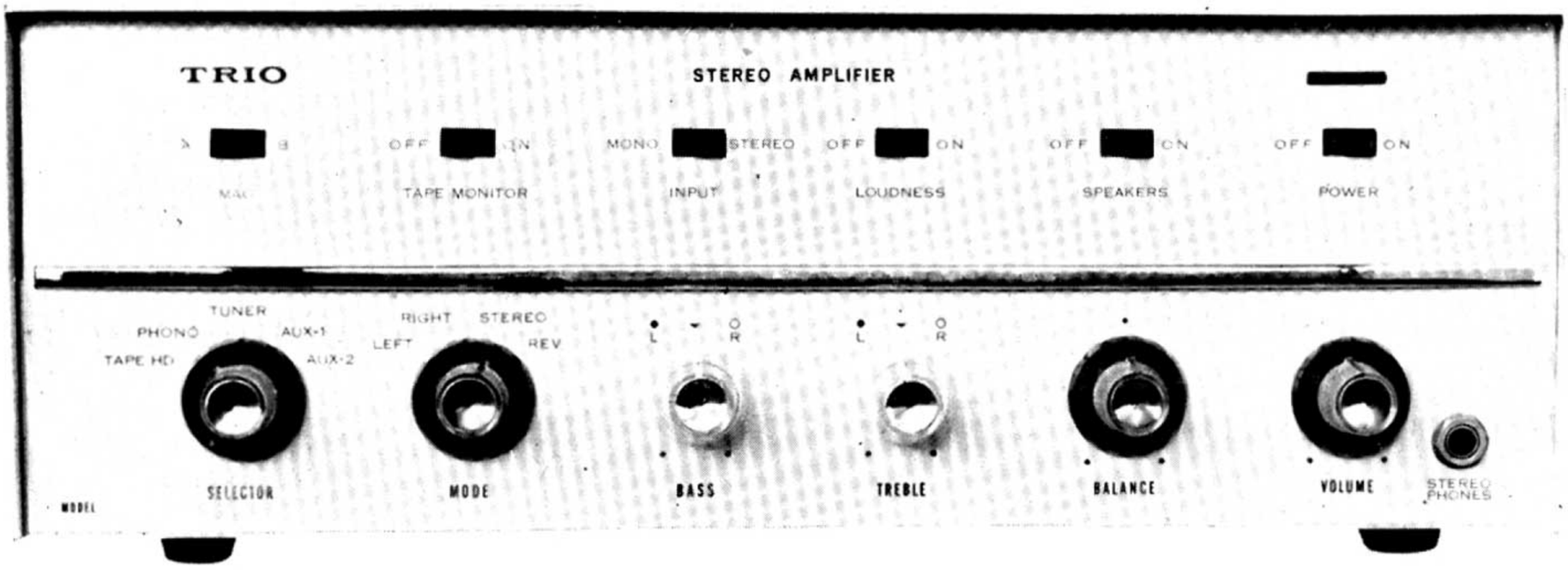
OPERATING MANUAL

TRIO



MODEL KW-200G

INTEGRATED STEREO AMPLIFIER

AMERICAN GENERAL SUPPLY
OF CANADA, LTD.

5500 FULLUM STREET MONTREAL, CANADA

KW-200G STEREO AMPLIFIER

The TRIO KW-200G is a high power stereo amplifier which provides rich, low and high frequency response for finest audio reproduction. Only a pair of loudspeakers are required to reproduce faithfully the thrilling brilliance of stereophonic sound.

The TRIO KW-200G also functions as a complete preamplifier-control center with RIAA compensated dual phono inputs for two magnetic cartridge pickups, as well as dual inputs for stereo tape recorder or two other stereo program sources. A convenient stereo headphone jack on the front panel makes it easy to enjoy fine music in complete privacy.

The TRIO KW-200G has been designed under TRIO's rigid engineering requirements to assure lasting quality and pleasure.

SPECIAL FEATURES OF KW-200G

A) The KW-200G has a rated music power of 30 watts on each stereo channel or a total of 60 watts on monaural.

B) TAPE MONITOR

This amplifier is equipped with a Monitor Switch which permits simultaneous playback monitoring while tape recording.

C) LOUDNESS CONTROL ASSURES REALISTIC SOUND REPRODUCTION

The KW-200G assures brilliant, realistic sound at all volume levels to enhance your listening pleasure. A special Loudness Control Switch provides the required bass and treble boost at the low volume listening levels.

D) Hum is entirely eliminated by utilizing a DC filament supply system for the equalizer circuit.

E) A convenient stereo Headphones Jack on the front panel provides listening pleasure in complete privacy.

CONNECTIONS TO ASSOCIATED EQUIPMENT

CONNECTING LOUDSPEAKERS

The KW-200G has output terminals for connection to speaker systems of 8 or 16 ohm impedance. Wherever possible, it is recommended that identical speakers be used. For indoor installations, ordinary plastic-covered lamp cord may be used to connect the speakers to the receiver. These cords may be extended as long as 100 feet without any significant power loss.

Connect the left-hand speaker leads to the terminals designated LEFT SPEAKER and the right speaker leads to RIGHT SPEAKER.

Set IMP SELECT switch to either 8 ohm or 16 ohm, whichever is closest to the impedance of the speakers used.

Warning. Never operate the receiver without first connecting a speaker to each channel output.

CONNECTING STEREO HEADPHONES

Plug the headphone into the PHONE jack. Then simply push the SPEAKERS switch to OFF position for reproduction through the headphones.

Caution: Never leave the SPEAKER switch in OFF position with the headphones disconnected, nor in the ON position with the speakers disconnected. Otherwise damage may result in the output tube circuitry.

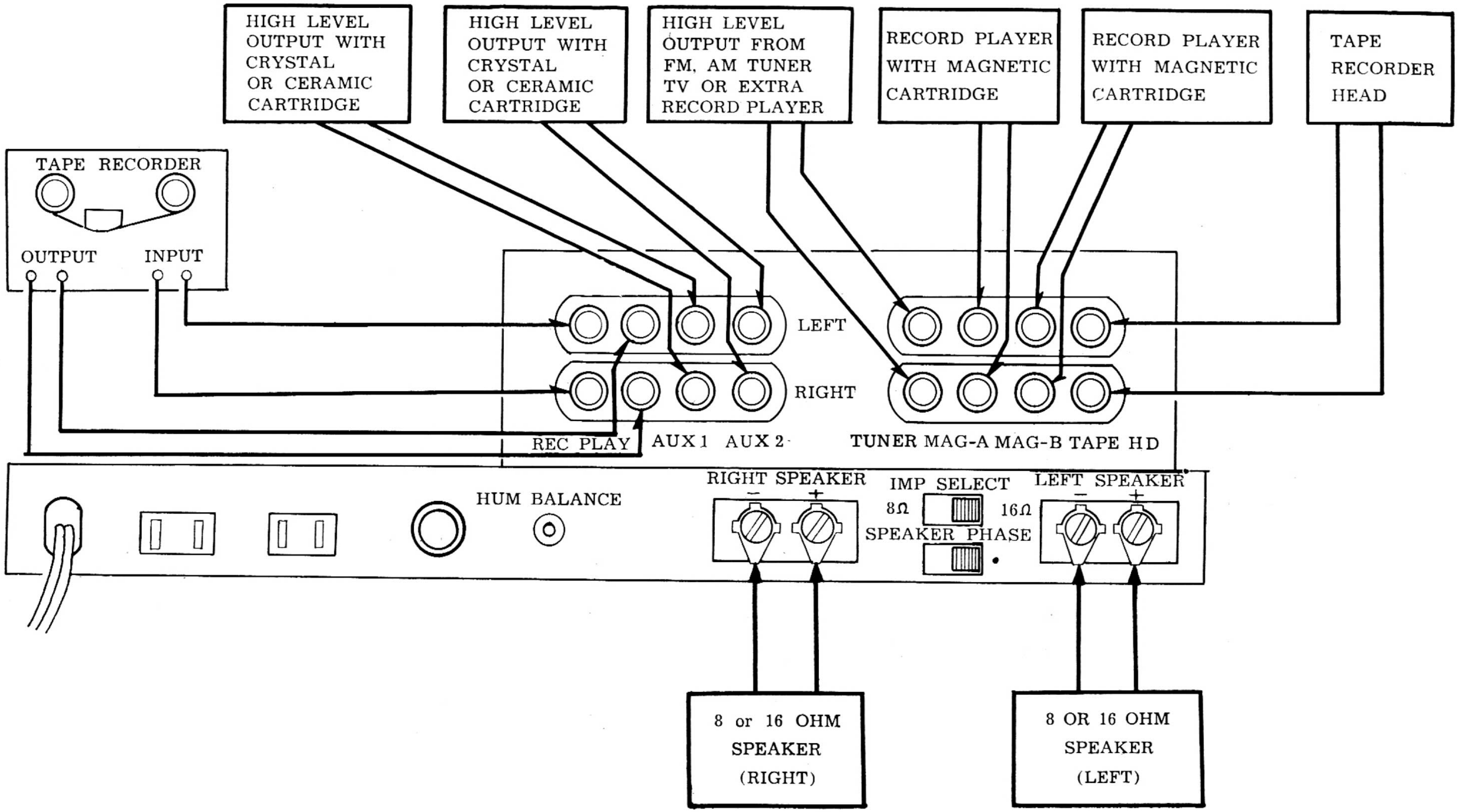
CONNECTING STEREO RECORD PLAYER

The two shielded cables from your stereo record player should be terminated with RCA type phono plugs. To avoid loss in the high frequency range, these cables should not exceed ten feet in length.

Low Level Phono Inputs: Inputs from a magnetic or variable reluctance (constant velocity type) cartridge should be connected to the jacks designated MAG.

Two-channel stereo inputs are provided for magnetic cartridge pickups. Such record players connected to the MAG-A and MAG-B jacks are controlled by the front panel MAG Switch.

INTERCONNECTING DIAGRAM



CONNECTING TAPE RECORDER

For Playback Tape Head (without amplifier): Using shielded cables, connect heads to the input jack marked TAPE HD. See diagram on page 3.

For Tape Recorder with Pre-amplifier: Using shielded cables, connect the input lead of the tape unit to the jack marked TAPE REC and also connect the output lead of the tape unit to the jack marked TAPE PLAY. See diagram on page 3.

After completing the connections, slide in the TAPE MONITOR switch on the front panel to "ON" and you can monitor the output sound of the recorder at the same time the recording is being made.

CONNECTING TUNERS

Use the TUNER terminals for connection to an FM-MPX Stereo or an AM-FM-MPX Stereo Tuner. For Monophonic operation, connections may be made to either the Right or Left terminals. Always use shielded cable for making these connections.

CONTROLS AND THEIR FUNCTIONS

POWER

Plug the AC line cord into an outlet furnishing 105 to 125 volts AC, 50 — 60 cps. The AC convenience outlet on the rear of the receiver may be used to supply power to another component, such as a record player, turntable, etc. Outlet marked switch is affected by the power switch, whereas the unswitch is unaffected.

POWER (AC Switch)

Be sure to turn this switch OFF when not using the amplifier.

VOLUME

The single control designated VOLUME adjusts the level of both channels simultaneously. To adjust one channel only, use the BALANCE control.

SELECTOR

This switch selects the program source. The following describes each function:

a. TAPE HD — This position is used only for tape playbacks directly from the tape head. (See AUX below.)

b. PHONO — Selects sources connected to MAG input jacks.

c. TUNER — Selects sources connected to the TUNER input jacks.

d. AUX 1, 2 — Selects sources connected to the AUX 1 and AUX 2 input jacks. For playbacks from the tape recorder with a compensated preamplifier, the selector is turned to AUX 1 and AUX 2 position and the TAPE MONITOR switch is positioned at PLAY. (In case of insufficient output due to a low-impedance tape head, additional voltage can be obtained by installing a well shielded input type step-up transformer between the tape head and the PLAY input.)

MODE

This switch determines the manner in which a program source (previously selected by the SELECTOR switch) will go through the amplifier.

a. LEFT — Reproduction is provided through the left speaker only.

b. RIGHT — Reproduction is provided through the right speaker only.

c. STEREO — This provides stereophonic reproduction of any stereo program source. This position will also provide monophonic reproduction through both channels when the INPUT switch is in the MONO position.

d. REV — This effectively reverses the positions of the two speakers. This left signal is now heard from the right speaker, and right signal from the left speaker.

BASS and TREBLE

These controls provide overall tone control, either increasing or decreasing the relative level of the bass and treble frequencies. When the indicators on the knobs are set at vertical position (12 o'clock), the amplifier is at its medium response. Clockwise rotation increases, and counter-clock rotation attenuates, the bass and treble response.

BALANCE

This control provides a simple means of adjusting the levels of both channels for proper balance during stereophonic reproduction. (See section "Balancing Channels")

LOUDNESS

This switch provides the frequency response change (bass and treble boost) required by the ear at low listening levels, and permits the VOLUME control to function as a compensated loudness control.

OPERATION

Before operating the stereo amplifier make sure that you have connected your loudspeakers and any other associated equipment (record player, tape recorder, etc.). Initially, set BASS and TREBLE controls to their mid-positions, INPUT switch to STEREO, VOLUME to minimum and BALANCE control to mid-position. Then adjust controls to suit your listening pleasure.

STEREO PHONO OPERATION

Set SELECTOR to PHONO, MODE switch to STEREO and INPUT to STEREO. Adjust all other controls as necessary for proper stereo operation.

MONOPHONIC RECORD PLAYING OPERATION

Set SELECTOR to PHONO, and MODE switch to LEFT or RIGHT, depending on whether the monophonic record player is plugged into the LEFT or RIGHT phone input jack. Set INPUT to MONO. The program source will now be heard through both speakers.

BALANCING CHANNELS

PHASING OF THE LOUDSPEAKERS

Correct phasing is important in a stereophonic system. If speakers are out of phase, they will work in opposition to each other and there will be a noticeable loss in the low frequencies. Use the following procedure to make this adjustment:

a. Set the SELECTOR to PHONO, all slide switches OFF, MODE to STEREO INPUT to STEREO and set VOLUME for desired listening level.

b. Play a monophonic record containing heavy bass passages and adjust the BALANCE control for equal output from both speakers.

c. Set the PHASE switch first to one position, then to the other, listening carefully to the bass tones in each position. Leave the switch in the position where the greatest amount of bass is heard in the general area between the two speakers.

REDUCING HUM

The hum balance control at the rear of the receiver will enable you to minimize any hum that may originate from the unit during normal operation. The procedure outlined below should be carried out with a turntable or record changer connected to the KW-200G.

a. With the pick-up arm at rest, set SELECTOR to PHONO, VOLUME control to maximum, BASS and TREBLE to their midway or "medium response" position, and all other switches for normal stereo operation.

b. Using a screwdriver, adjust the HUM BALANCE control for minimum hum from both speakers.

AC LINE CORDS

As a general means of reducing hum, the following procedure should be carried out:

1. Turn on all equipment connected to the receiver.
2. Reverse the AC wall plug from the receiver to determine which position provides the least hum. Leave in this position.
3. Repeat this procedure with the AC plugs of the other components, using the selector switch to select the component being tested.

Making a single ground connection between the receiver and a ground point (such as the AC socket wall plate) may further reduce hum. The ground wire should be taken to a point as close to the input jacks as possible.

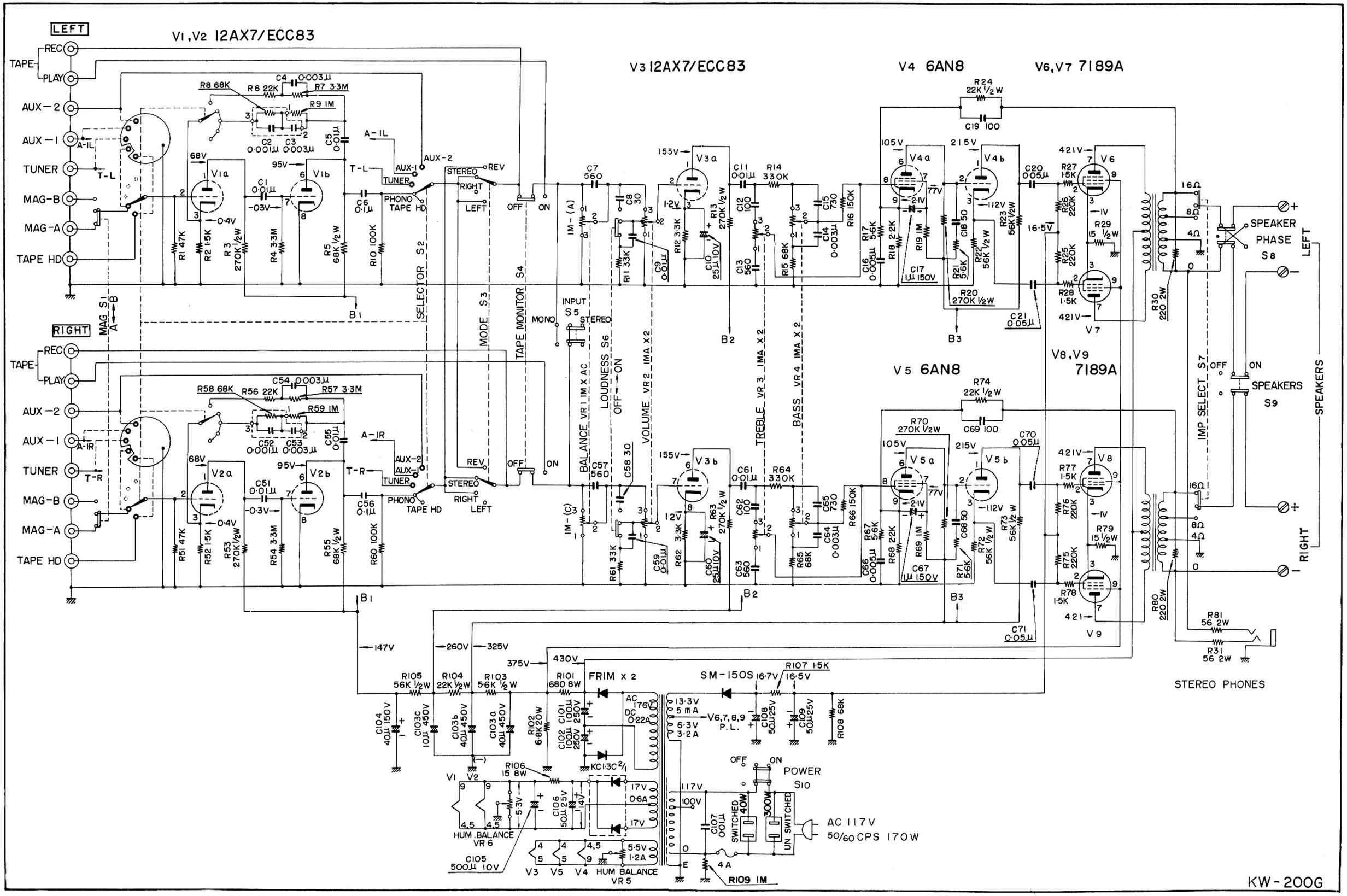
FUSE

This stereo amplifier has a fuse in the AC primary to prevent possible damage to tubes and components. The value of the fuse is 4 amperes. Whenever replacement of this fuse becomes necessary, always use one of the same rating. A larger fuse will not protect the amplifier, and may result in severe damage.

SPECIFICATIONS

Tubes Used:	9 tubes and 3 diodes. 12AX7/ECC83 .... 3, 6AN8 .... 2, 7189 (A) 4, FR1M .... 2 (Silicon), KC1.3C 12/1 ..... 1 (Selenium rectifier).
Input:	MAG1, MAG2 — 2.2mV; TAPE HEAD — 1.4mV (500cps); AUX1, AUX2 — 140mV
Output Power:	30 watts per channel music power (25 watts continuous), or mono 60 watts music power (50 watts continuous) @ 1% Harmonic distortion.
Tone Control:	50cps +11db −10db 10KC +11db −10db
Loudness Control:	Volume Control @ −30db 100cps +10db, 10KC +4db
Equalizer:	RIAA (MAG) NARTB (TAPE HEAD)
Special Circuit:	Stereo Headset Jack, Tape Monitor
Power Consumption:	AC 117V 50/60 cps 170 Watts.
Dimensions:	Width 15″, Height 5⅜″, Depth 9¾″.
Weight:	23 lbs.

SCHEMATIC DIAGRAM



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TRIO

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