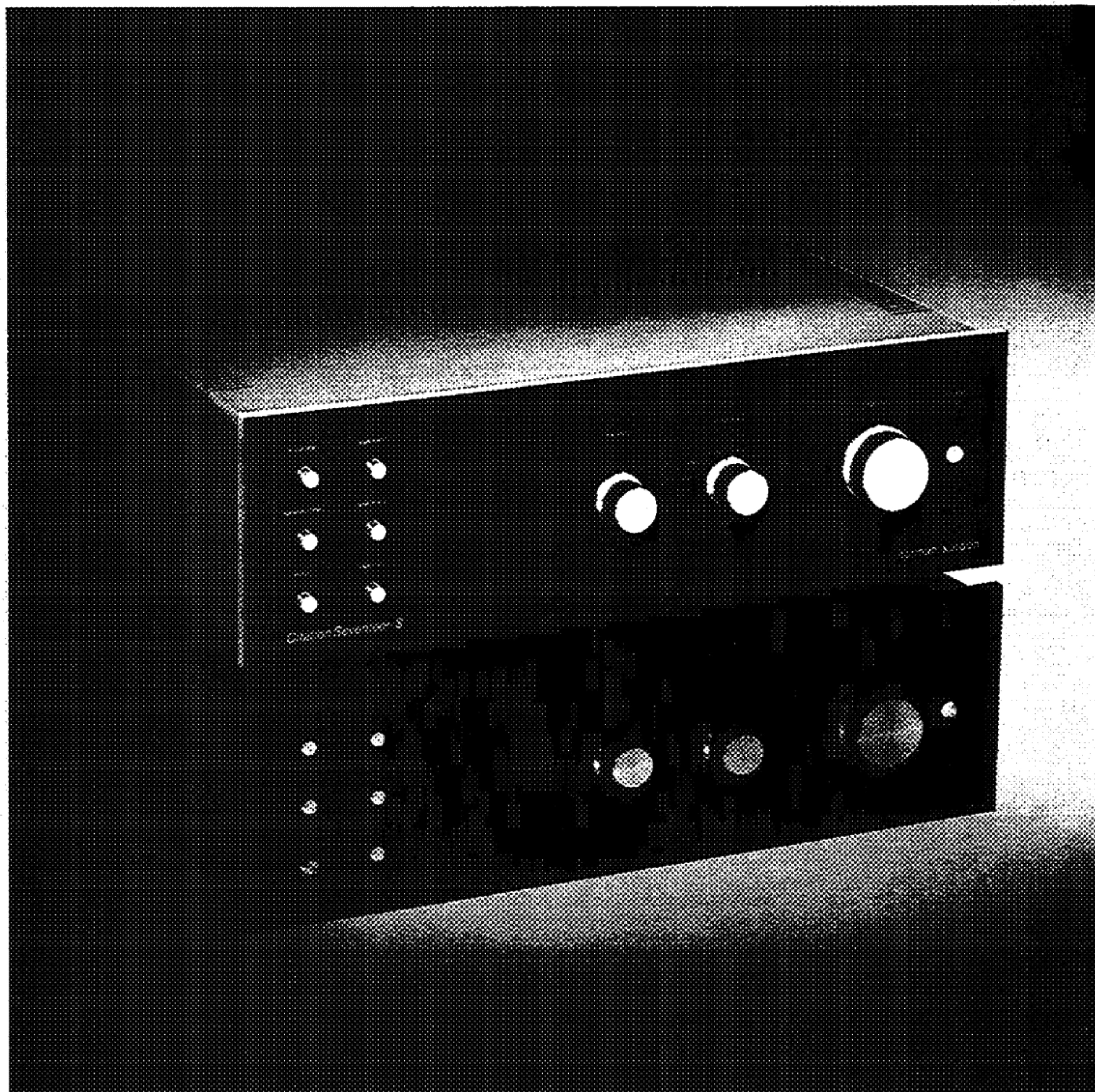


harman/kardon

Citation 17s

stereo preamplifier

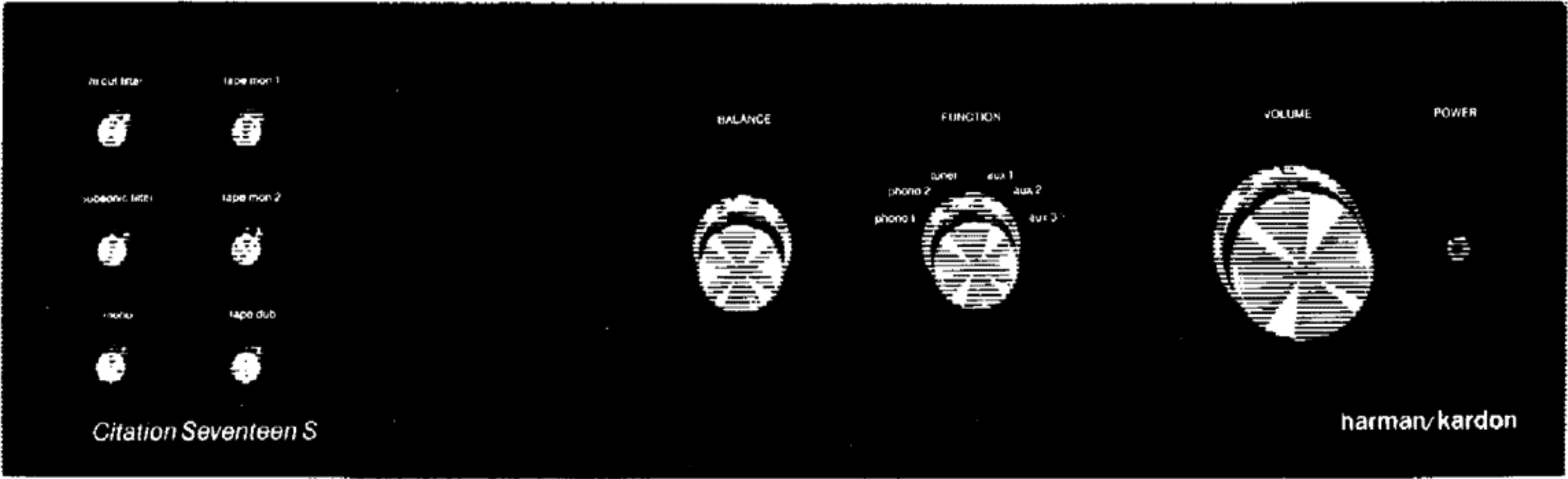
Owner's Manual



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The Citation 17s is an expression of our love for music, and our desire to hear music reproduced as accurately as possible.

We believe you will find using the Citation 17s preamplifier as satisfying an experience as we enjoyed in designing and building it.



Special Features

RIAA equalization held to within $\pm 0.25\text{dB}$.

Phono inputs which cannot be overloaded by any magnetic cartridge.

Extraordinary square wave response.

Subsonic filter which reduces unwanted low frequency signals without affecting program material.

Tape-to-tape dubbing, even while you listen to a separate program source.

Inputs for two low level and six high level sources.

Warning: To prevent fire or shock hazard, do not expose this preamplifier to rain or moisture.

Connections

Installation

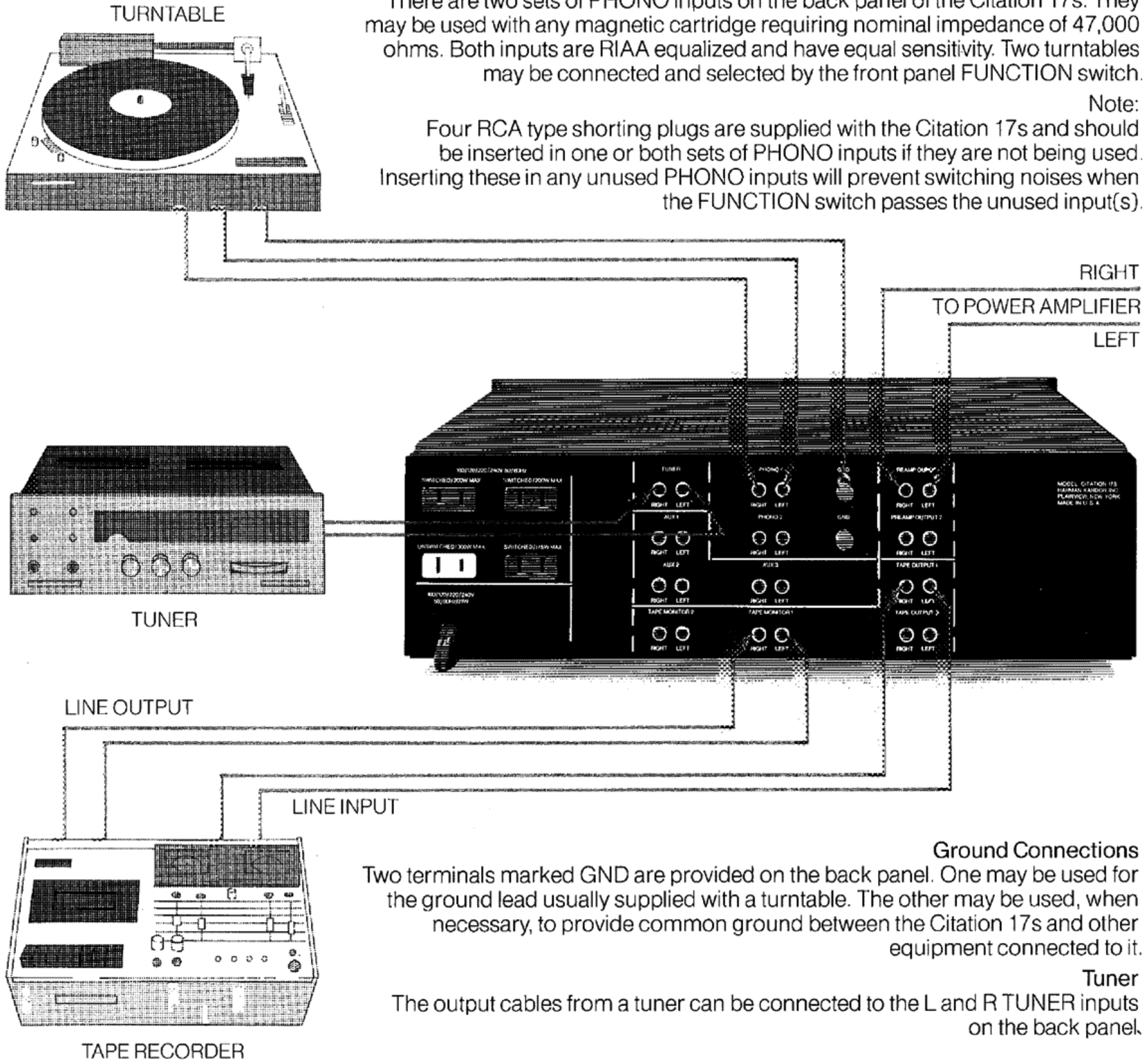
The Citation 17s may be placed in any convenient location. Special ventilation is not necessary, but the unit should not be placed directly over a heat-producing source.

Turntables

There are two sets of PHONO inputs on the back panel of the Citation 17s. They may be used with any magnetic cartridge requiring nominal impedance of 47,000 ohms. Both inputs are RIAA equalized and have equal sensitivity. Two turntables may be connected and selected by the front panel FUNCTION switch.

Note:

Four RCA type shorting plugs are supplied with the Citation 17s and should be inserted in one or both sets of PHONO inputs if they are not being used. Inserting these in any unused PHONO inputs will prevent switching noises when the FUNCTION switch passes the unused input(s).



Ground Connections

Two terminals marked GND are provided on the back panel. One may be used for the ground lead usually supplied with a turntable. The other may be used, when necessary, to provide common ground between the Citation 17s and other equipment connected to it.

Tuner

The output cables from a tuner can be connected to the L and R TUNER inputs on the back panel.

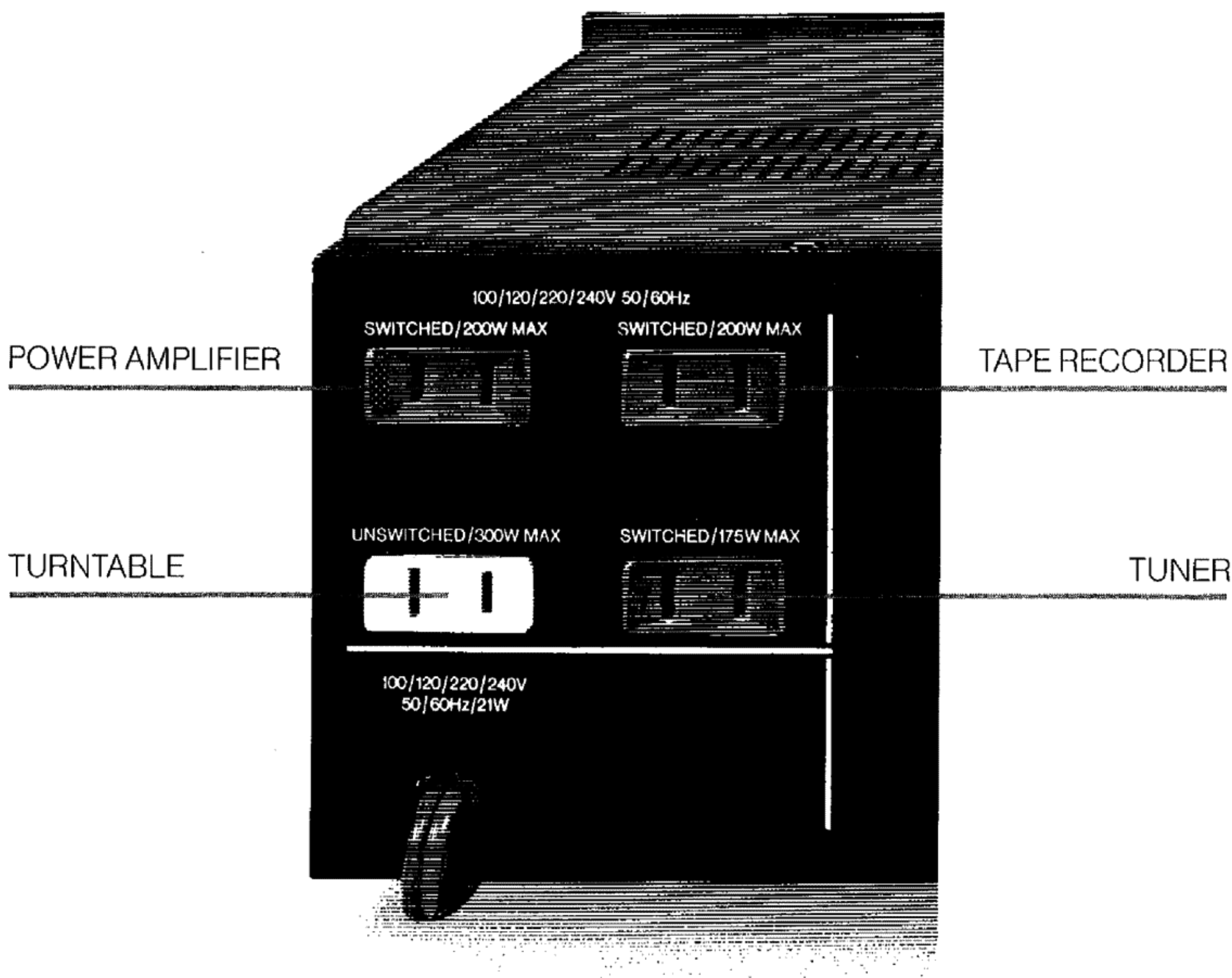
AC Convenience Outlets

Four AC receptacles are provided on the back panel. Three are marked SWITCHED and are controlled by the front panel POWER switch. Two of the receptacles are rated at 200 watts each and one is rated at 175 watts, giving the Citation 17s a maximum power switching capacity of 575 watts. The UNSWITCHED outlet, live at all times, is rated at 300 watts.

An automatic turntable or record changer may still be cycling at the end of play. Consequently, it may continue to require power to complete its cycle after you wish to turn off the Citation 17s. It is therefore advisable to connect the power cord of an automatic turntable to the UNSWITCHED outlet.

Caution:

Do not connect the power line cord of your power amplifier to an AC convenience outlet on the Citation 17s if the rated power consumption of the amplifier exceeds the maximum power rating of the outlet.



Tape Decks

The Citation 17s provides facilities for both recording and playback with cassette, cartridge, and open-reel tape decks or recorders.

Using the signal cables provided with your tape deck, connect the left and right outputs of the tape deck to the TAPE MONITOR 1 receptacles of the Citation 17s. Connect the left and right inputs of the tape deck to the TAPE OUTPUT 1 receptacles. If you have a second tape deck, repeat the procedure using the TAPE MONITOR 2 and TAPE OUTPUT 2 receptacles.

Other Signal Sources

In addition to tape decks, signal processing accessories may be connected to the TAPE OUTPUT and MONITOR receptacles. Such accessories include audio equalizers, noise reduction processors, and dynamic range enhancers.

The outputs of additional tape decks, tuners, and other high-level program sources can be connected to the auxiliary (AUX) inputs. There are three pairs of AUX inputs on the back panel of the Citation 17s.

Power Amplifier

The Citation 17s may be operated with any power amplifier with input impedance greater than 2200 ohms. Connect the power amplifier audio inputs to either PREAMP OUTPUT 1 or 2 on the back panel of the Citation 17s. Two power amplifiers may be connected at the same time if desired.

Line Cord

The preamplifier operates with 105-129 volts AC, 60Hz.

Be certain that the POWER switch is in its off (extended) position when connecting or disconnecting the Citation 17s from an AC power outlet.

Operation

Power Switch

This control supplies power to the preamplifier and to the three switched AC outlets on the back panel. It is illuminated when power is on.

A 5- to 8-second turn-on delay circuit is used in the Citation 17s. This serves to protect your speakers from transients.

Function Switch

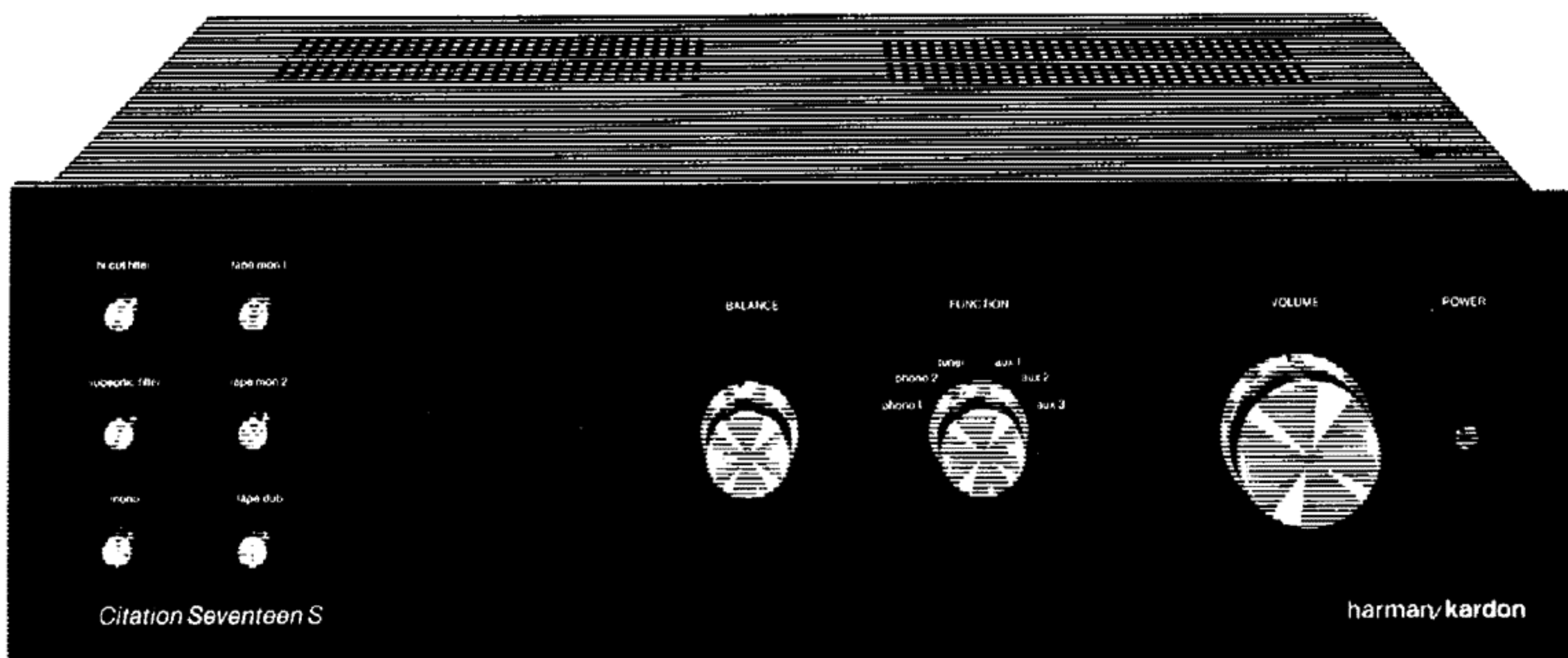
The FUNCTION switch is used to select the program signal source and has six positions. These include positions for two turntables (PHONO 1 and 2), and four high level sources (TUNER, AUX 1, AUX 2, and AUX 3). Signals present at any of these inputs may be recorded from either TAPE OUTPUT 1 or 2.

Volume Control

The VOLUME control determines the signal level only at PREAMP OUTPUT 1 and 2. It is a true stepped attenuator calibrated in 32 separate resistance values. This provides exceptionally close tracking between channels and enables you to accurately repeat volume settings.

Balance Control

The BALANCE control shifts the loudness to one channel or the other. Turning the control counterclockwise from its neutral (12 o'clock) position will shift the sound to the left channel by reducing the loudness of the right. Turning the control clockwise will have the opposite effect.



Mono Switch

When the MONO switch is depressed, the left and right channels are combined. Monophonic inputs to either channel are applied to both left and right PREAMP OUTPUTs.

Hi-Cut Filter

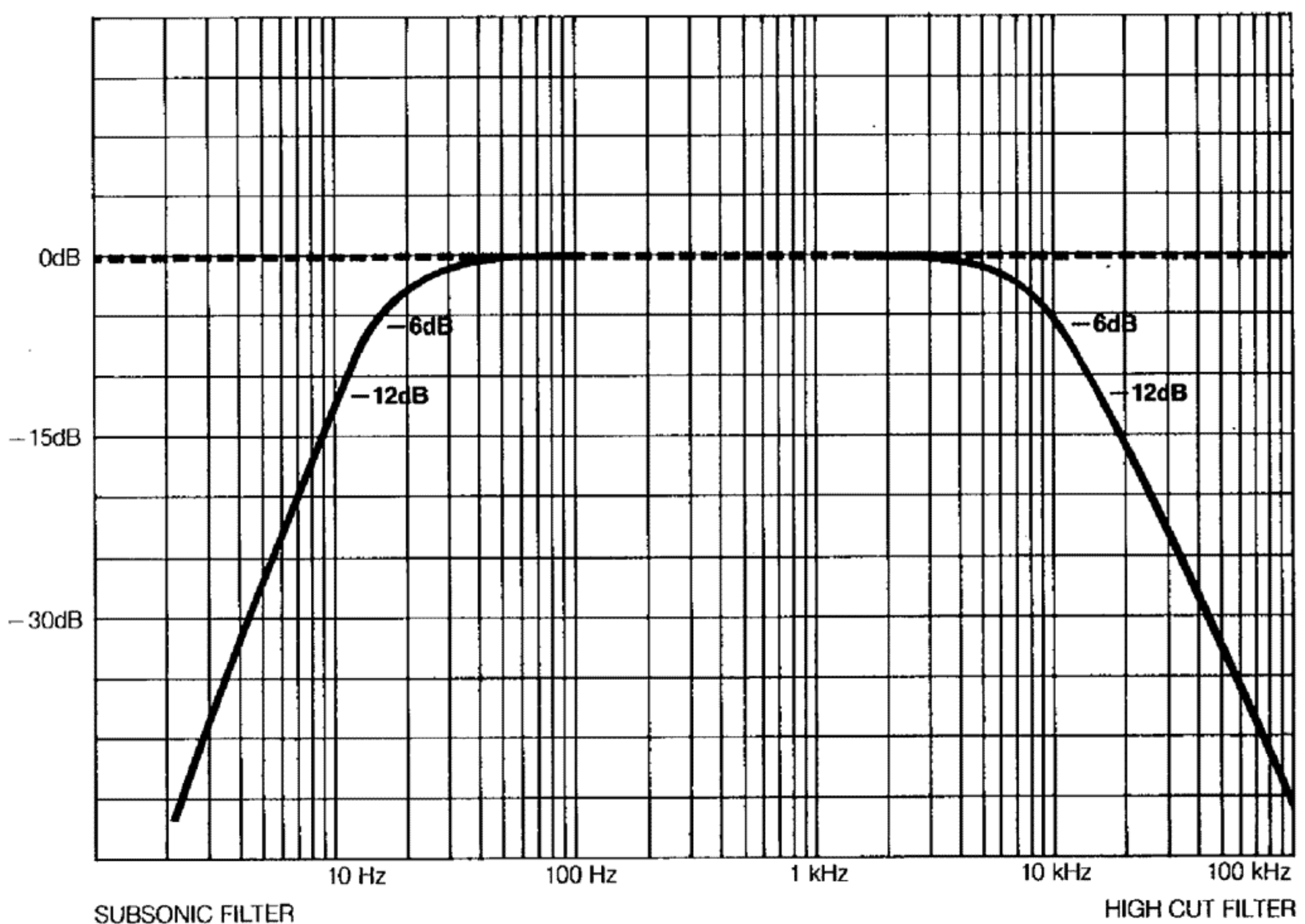
The HI-CUT FILTER is useful for reducing record scratch, tape hiss, or FM background noise. It provides 3dB reduction at 8kHz, with a 12dB per octave slope.

Subsonic Filter

The SUBSONIC FILTER has been designed to protect your speakers from low frequency components that, although inaudible, are potentially harmful to loudspeakers. Such oscillations can be caused by severe record warp, subsonic acoustic feedback, or tonearm resonance effects.

The filter has a 12db per octave slope providing a 3dB reduction at 20Hz.

Subsonic and High Cut Filter Characteristics



Tape Monitor Switches

The TAPE MON 1 and TAPE MON 2 switches admit programs from any high level source (usually a tape deck) connected to the corresponding TAPE MONITOR 1 and TAPE MONITOR 2 receptacles. These switches are on in the depressed position. When both switches are depressed, TAPE MON 2 takes precedence. Note: If either TAPE MON switch is depressed, no sound will be heard from any other component connected to the Citation 17s regardless of the function selected.

If your tape deck has a separate monitor head, you can compare the original source with the recording as it is being made. Depress the appropriate TAPE MON switch and you will hear the recording a fraction of a second after it has been made.

Return the TAPE MON switch to the extended position, and you will hear the original source. Use of the TAPE MON switches does not affect the signal being recorded from the TAPE OUTPUT receptacles.

Tape Dub Switch

The Citation 17s has additional circuitry that allows you to make tape-to-tape copies while simultaneously listening to a separate program source. Depressing the TAPE DUB switch connects the outputs of Tape 1 to the inputs of Tape 2, and the outputs of Tape 2 to the inputs of Tape 1. Thus you may record in either direction. Either tape deck can be monitored when the appropriate TAPE MON switch is depressed.