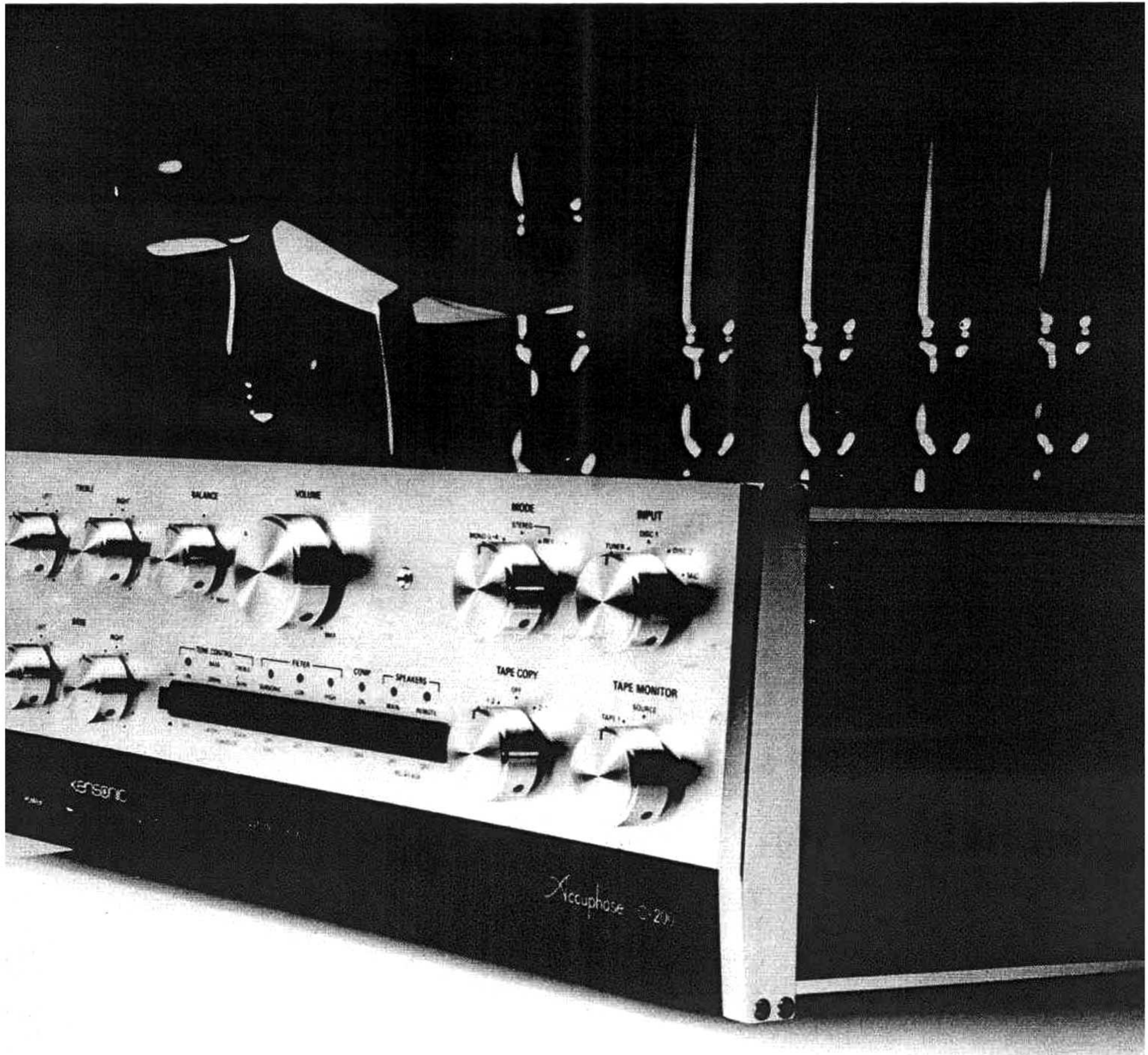


Accuphase

STEREO CONTROL AMPLIFIER C-200



Owner's Manual

Thank you for purchasing this Accuphase product, which we here at Kenosonic, who are dedicated to the policy of creating the highest quality audio components, are proud to introduce. You can be assured that in preparing this component, every attention was paid in great detail by our entire staff to strict quality control. This dedication was followed throughout the whole manufacturing process – from basic research, the selection of each part, assembly, testing, data recording, packing and shipping – so that we could supply a product with every confidence that it will give full owner satisfaction and pride.

We welcome you to the fast-growing Accuphase circle of dedicated audio enthusiasts and true sound lovers.

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SPECIAL FEATURES

- **High stability equalizer circuit is composed of differential amplifiers and push-pull drivers in every stage.**

Utilization of direct-coupled, push-pull drivers in all stages has vastly improved the characteristics preceding negative feedback application. This has resulted in an equalizer circuit with outstanding fidelity and stability.

- **Wide range input handling capability up to 400 mVrms assures faithful passage of practically any size pulse.**

Employment of complementary - symmetry, Class A amplifiers in the last stage of the equalizer circuit which utilize rugged power transistors and are fed by symmetrical dual (positive and negative) power supply systems ensures wide range input handling capability up to 400 mVrms at 1 kHz with less than 0.05% distortion.

- **Effective Enhancement circuit enables ample control of rich, bass tones that enhance and add "presence" to music reproduction.**

The C-200 stereo control amplifier is equipped with a DISC LOW ENHANCE switch which accentuates rich bass tones that add to music enjoyment. This switch offers 0, +0.5 and +1 dB change against the RIAA characteristic curve at 100 Hz.

- **10 dB variable range DISC level controls make it easy to unify unequal turntable output levels.**

Output voltage of cartridges vary depending upon the manufacturer. DISC level controls are provided to unify the levels of DISC 1 and DISC 2 quickly and easily.

- **Input impedance selector switch is provided for DISC 1.**

DISC 1 has provisions for impedance matching to transformer-coupled moving coil type cartridges. This is achieved with a 3-point impedance matching switch which provides impedance selection of 47, 30 or 20 K ohms.

- **Subsonic filter eliminates inaudible turntable vibrations that can still cause intermodulation distortion.**

Turntable motor and tone arm resonance vibrations outside the audible range can still mar sound reproduction by causing intermodulation distortion in the hearing range. The C-200 stereo control amplifier is equipped with a subsonic filter which eliminates such low frequency vibrations below 25 Hz.

- **Separate headphone amplifier assures highest fidelity private listening.**

A directly coupled, special amplifier for exclusive headphone use is provided to ensure highest fidelity for private listening through stereophones.

- **Constant, regulated voltages from the power supply assure outstanding stability.**

Regardless of the signals handled, the power supply delivers constantly regulated, non-fluctuating voltages. Even against normal AC line voltage fluctuations, this power supply is capable of delivering very stable DC output voltages.

- **Complete range of tone control is at your fingertips.**

BASS AND TREBLE tone controls, both provided with 10-step selection, PLUS a further choice of two turnover frequencies for both, permit selection of practically any tone variation.

- **Tone Control ON-OFF switch offers quick comparison of tonal qualities.**

This switch permits instantaneous comparison of any tone adjustment against a truly flat response characteristic.

- **Low and high filters effectively eliminate noise with minimum sound deterioration.**

A 30 Hz 18 dB/oct LOW filter and 5 kHz 12 dB/oct HIGH filter are very effective in eliminating low frequency interference, as well as high frequency noise such as tape hiss.

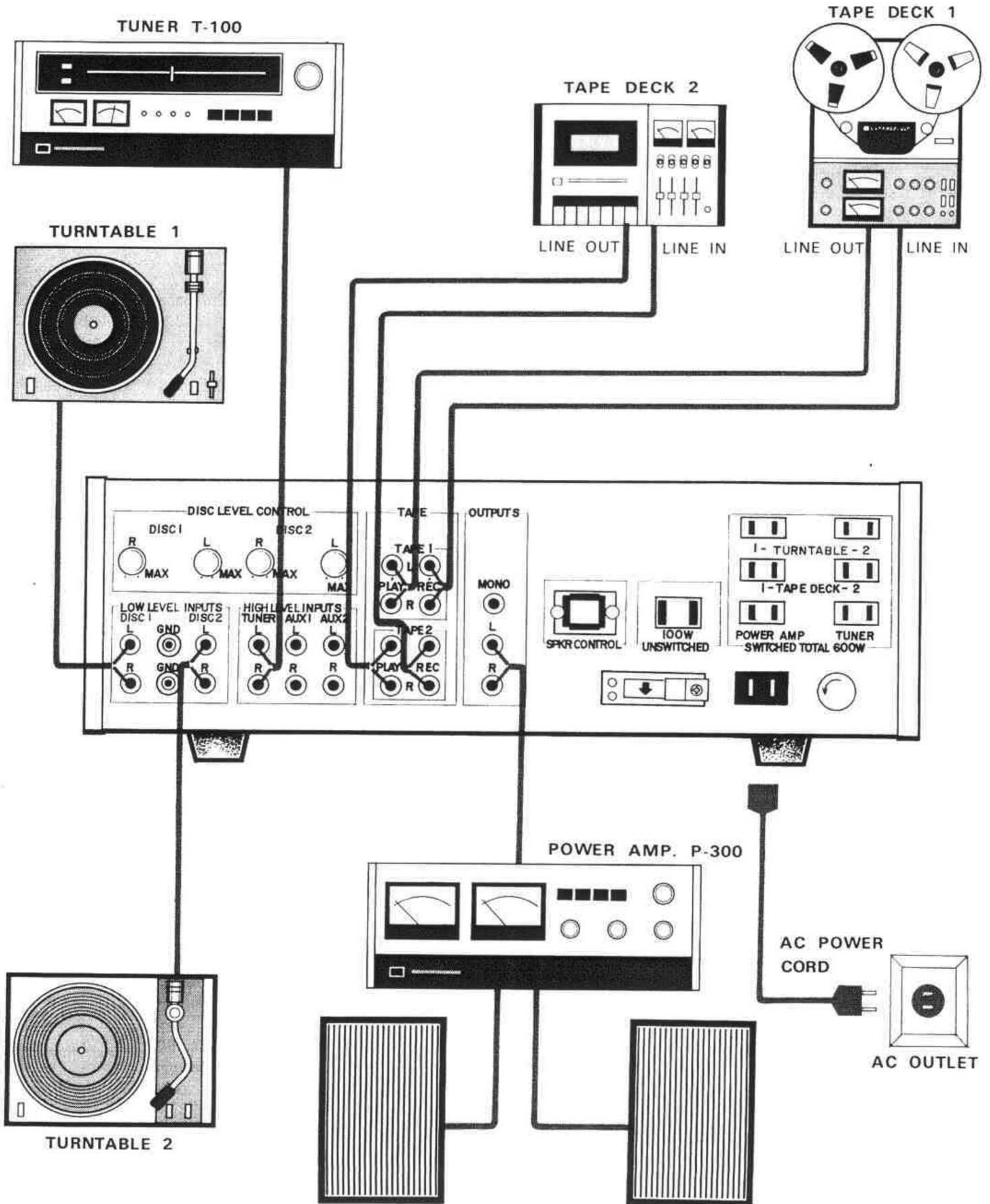
- **Wide range of input and output terminals facilitates every conceivable installation.**

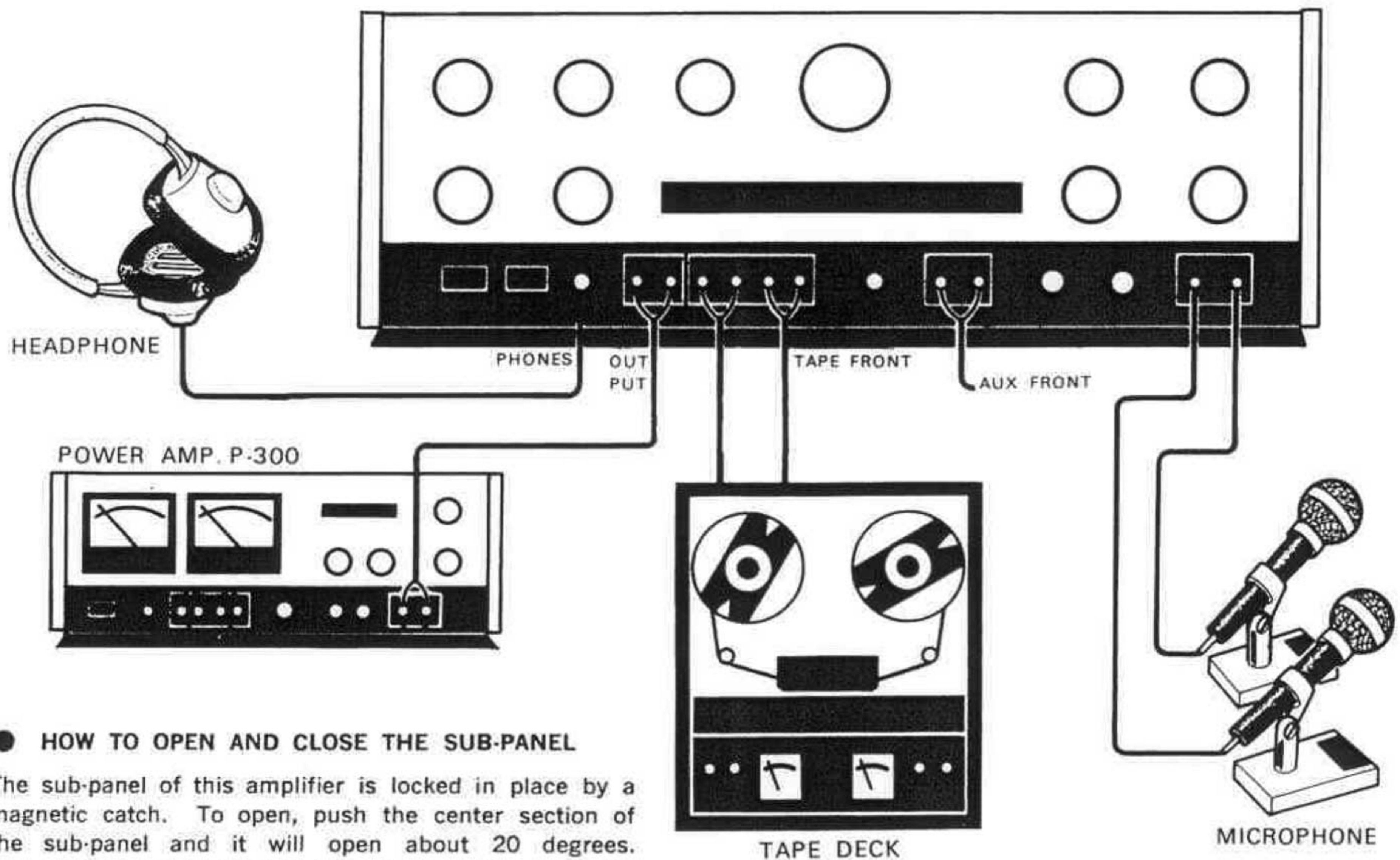
The C-200 has a total of 10 inputs and 7 outputs terminal systems which make it easily adaptable to a wide variety of program sources in almost any conceivable type of installation.

- **Three tape recorders can be connected simultaneously. Tape Copy Switch is independent.**

A total of three tape recorders can be connected simultaneously. Copying from one tape recorder to another is possible even while listening simultaneously to another program source. This is achieved by a separate tape copying switch that is independent of the tape monitor switch.

INTERCONNECTION OF COMPONENTS





● **HOW TO OPEN AND CLOSE THE SUB-PANEL**

The sub-panel of this amplifier is locked in place by a magnetic catch. To open, push the center section of the sub-panel and it will open about 20 degrees. Thereafter, you will be able to open it all the way with your fingertips. To close, line the sub-panel with the magnetic catch and push the panel into place.

PRECAUTIONS BEFORE USING

● **AC LINE VOLTAGE**

Before plugging the line plug into your AC outlet, check the setting of the arrow on the Voltage Selector which is located on the rear panel of this unit. Be sure that it is pointing to the voltage value equal to your line voltage. This voltage selector is pre-set at the factory to the line voltage that prevails in the areas to which the units are shipped, but this precaution of checking the arrow setting before operation is very important.

If, for any reason, you should find it necessary to reset the Voltage Selector, please turn to page 10 and read the section under "Voltage Selector" carefully before proceeding.

● **USE LOW CAPACITY SHIELDED CORDS**

Shielded cords must be used to interconnect the components of a system such as the tuner, control amplifier, power amplifier, players, tape decks, etc. It is important to select best quality, low capacity cables for this function. Thin, high capacity shielded cords not only affect high frequency response, but are likely to pick up undesirable

noises. Remember also to keep interconnecting shielded cords between components as short as possible.

● **REDUCE AMPLIFIER VOLUME BEFORE OPERATING RECORD PLAYER**

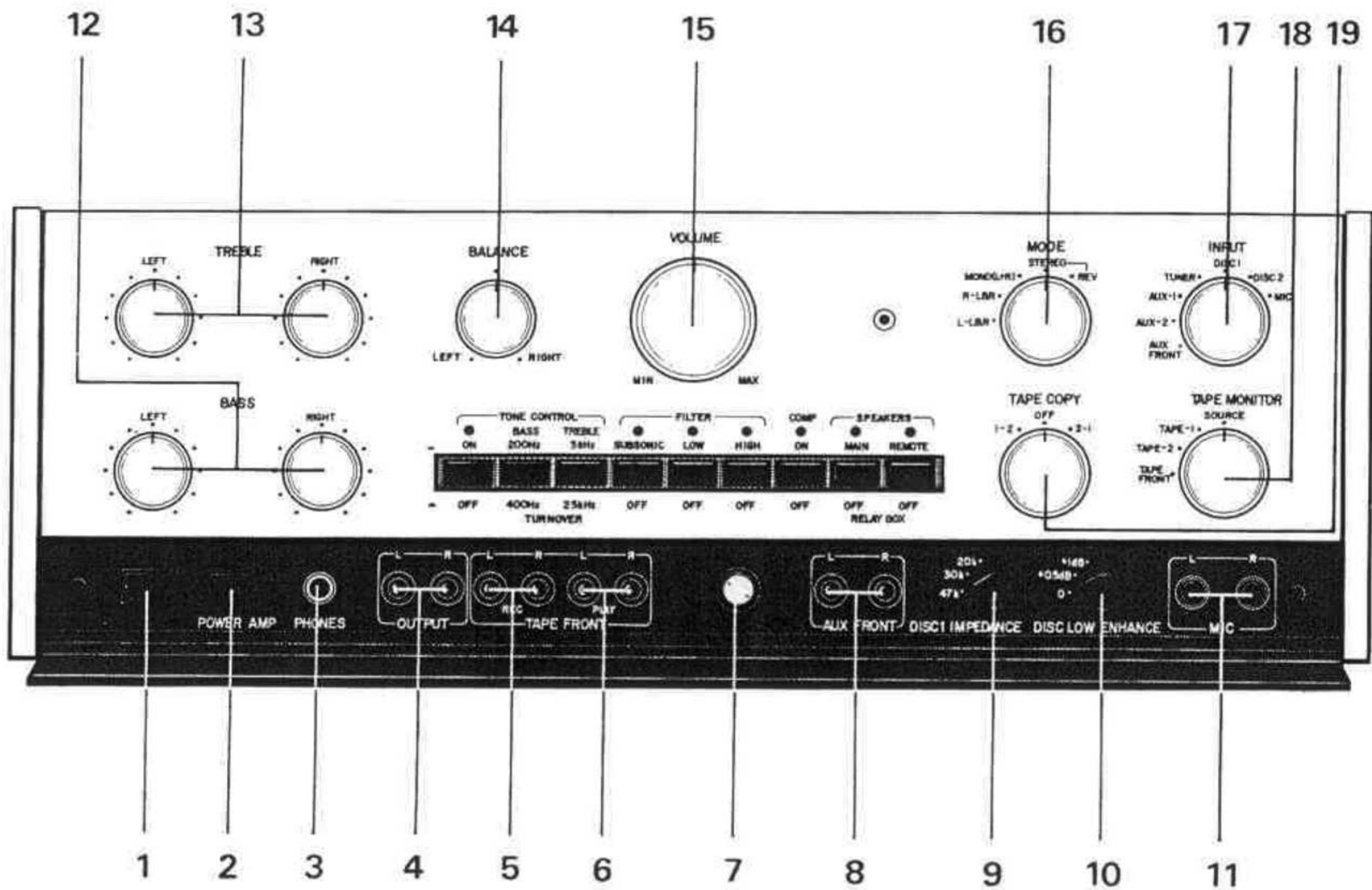
Always reduce the volume of this unit before operating a record player. This precaution will serve to protect the speakers against possible harm from low frequency, large current surges that may result from lifting or lowering the cartridge, even though sound pressure itself from this action may be minor.

Also be sure to turn the power supply off before connecting or disconnecting input/output cords.

● **AVOID EXPOSURE TO SUNLIGHT, OR EXTREME HEAT**

It is important to keep the space above and below this amplifier open for proper ventilation. Also do not install unit where it will be exposed to direct sunlight or extreme temperature fluctuations. Avoid locations adjacent to a heater or heat sources.

PARTS AND THEIR FUNCTIONS



(1) POWER switch

Push this switch once to turn the amplifier on. Push it once again to turn it off.

(2) POWER AMP switch

This push-button switch will turn the power amplifier on or off provided its line plug is inserted into the SWITCHED AC outlet marked "POWER AMP" at the rear of this unit.

(3) PHONES — Headphone output jack

Use 4 to 16 ohms headphones here. When a headphone is plugged in, the signal is not cut off at the OUTPUT terminals of this amplifier. Therefore, be sure to turn the power amplifier off with the POWER AMP switch (2) when listening to headphones only.

(4) OUTPUT jacks

These front panel output jacks are available for power amplifier testing.

(5) TAPE FRONT REC — Tape deck recording jacks

These are front panel output jacks which are used to feed the recording signal to the tape deck. They should be connected to the LINE IN jacks of the tape deck. (Two other pairs of output jacks for the same function are also available on the rear panel).

(6) TAPE FRONT PLAY — Tape deck playback jacks

These are front panel input jacks which feed the tape playback signal to the amplifier. These jacks should be connected to the LINE OUT jacks of a tape deck. The TAPE MONITOR switch (18) must be set to "TAPE FRONT" when tape playback is made through these jacks. (Two other pairs of input jacks for the same function are also available on the rear panel).

(7) MAGNETIC Catch

This locks the sub-panel in place magnetically.

(8) AUX FRONT — Auxiliary input jacks

These are front panel auxiliary input jacks. The INPUT selector (17) must be set to "AUX FRONT" to amplify signals sent through these jacks.

(9) DISC 1 IMPEDANCE — DISC 1 input jack impedance matching switch

This switch permits quick impedance matching of turntable cartridges connected to the rear panel DISC 1 jacks. It should be set to 47 K ohms for general-type cartridges and closest to the impedance rating of the coupling transformer.

(10) DISC LOW ENHANCE — Low frequency enhancement switch

This switch is used to enhance low frequency sounds by slightly changing the characteristics of the equalizer. Enhancement of 0.5 or 1 dB against the RIAA curve at 100 Hz is obtained. When this switch is set to "0", a true RIAA response characteristic is obtained.

(11) MIC — Microphone input jacks.

These jacks are to be used with the INPUT selector (17) set to "MIC". Use a low impedance microphone of approximately 600 ohms.

(12) BASS — Low frequency tone controls

These controls function only when the TONE CONTROL button (20) is set to "ON". Bass is emphasized as the controls are turned to the right of center, and attenuated as the controls are turned to the left. Bass emphasis is adjusted in 2 dB steps.

When the TONE CONTROL BASS TURNOVER selector switch (21) is set to 400 Hz, a change of ± 10 dB is obtained at 100 Hz. When this switch is set to 200 Hz, a change of ± 6 dB at 100 Hz, and ± 10 dB at 50 Hz is obtained.

(13) TREBLE — High frequency tone controls

These controls function only when the TONE CONTROL button (20) is set to "ON". High frequency treble sound is emphasized as the controls are turned to the right of center, and attenuated when turned to the left. Tone is varied in 2 dB steps.

When the TONE CONTROL TREBLE TURNOVER switch (22) is set to 2.5 kHz, a change of ± 10 dB at 10 kHz is obtained. When this switch is set to 5 kHz, a change of ± 6 dB at 10 kHz, and ± 10 dB at 20 kHz is obtained.

(14) BALANCE — Stereo balance control

When this control is turned clockwise, the sound level

of the left speaker is reduced. The sound level of the right speaker is reduced when the control is turned counterclockwise.

(15) VOLUME — Volume control

Sound level increases when this control is turned clockwise.

(16) MODE — Mode selector

When this control is set to L → L & R, left channel sound is heard from both speakers; when it is set to R → L & R, right channel sound is heard from both speakers.

When this control is set to MONO (L + R), left and right channel sounds blend together and the same sound is heard from both speakers.

When this control is set to STEREO, left and right channel sounds are completely separated and heard from the respective speakers, providing stereophonic play.

When this control is set to REV, left and right channel sounds are reversed; that is, they will be heard from the opposite side speakers in stereophonic mode.

(17) INPUT — Input selector

This switch selects program sources connected to the various INPUT jacks.

(18) TAPE MONITOR — Tape monitor control

When this control is set to SOURCE, all source signals applied to the INPUT jacks, other than TAPE PLAY jacks, can be reproduced. For this reason, always set this control to "SOURCE" except for tape playbacks.

For tape playbacks, set this switch to TAPE 1, TAPE 2 or TAPE FRONT, whichever jack the tape deck concerned is connected to.

For tape recordings, this switch should be set to SOURCE which permits monitoring the program source that is being recorded.

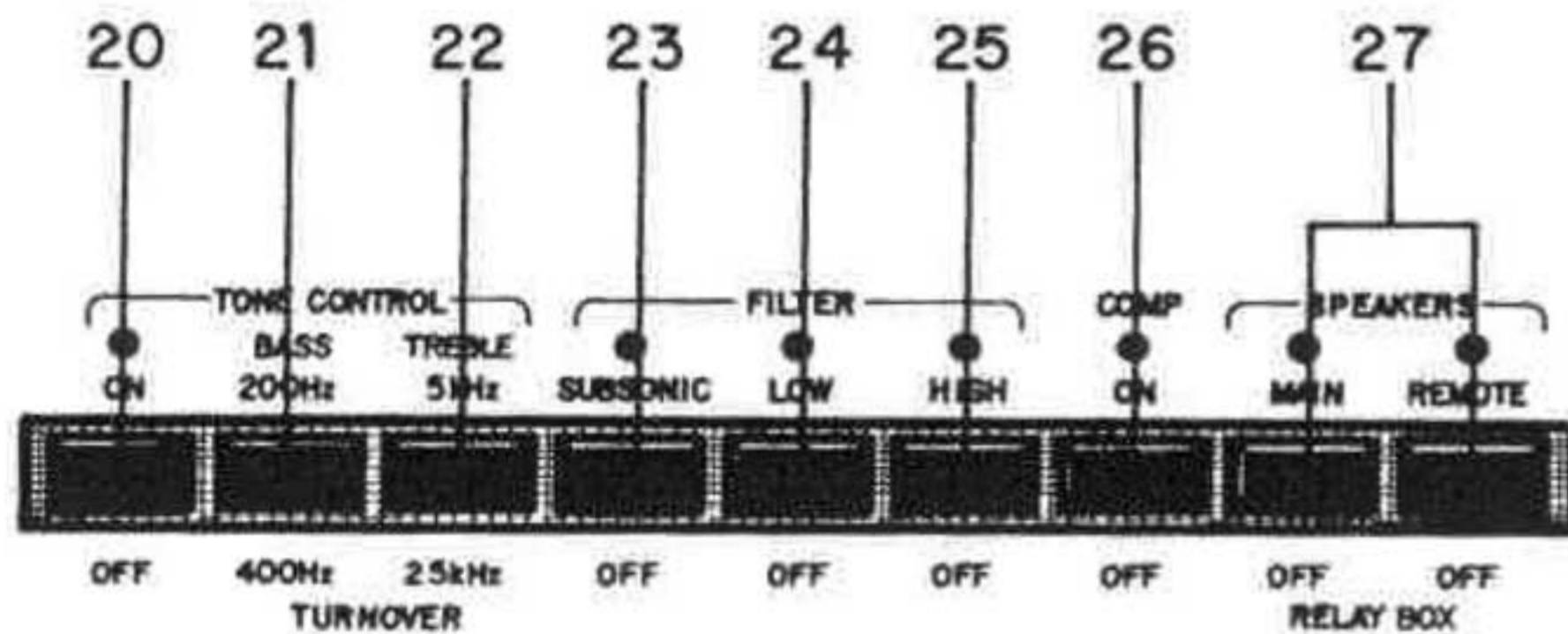
To check back on the quality of the recording that is being made, merely turn this switch to TAPE 1, TAPE 2 or TAPE FRONT, whichever jack the tape deck concerned is connected to.

(19) TAPE COPY — Tape Copying control

This control is used when copying tape from one tape deck to another. Set this control to 1 → 2 when copying from a tape deck connected to TAPE 1 jacks to a tape deck connected to TAPE 2 jacks. Set the control to 2 → 1 when the reverse is the case.

Copying can be done independently while listening simultaneously to another program source when the TAPE MONITOR control (18) is set to "SOURCE"

PARTS AND THEIR FUNCTIONS



When copying from tape 1 to tape 2 with the TAPE MONITOR Control (18) set to "TAPE 1", the playing condition of tape 1 can be checked, and with the TAPE MONITOR control (18) set to "TAPE 2", the copied tape can be monitored. Monitoring can also be accomplished in the same manner when copying from tape 2 to tape 1.

(20) TONE CONTROL ON-OFF switch

When this switch is pushed into locked position, the tone control circuit is activated, allowing the BASS and TREBLE controls to function. When it is pushed again and released, the tone control circuit is turned off, providing a flat frequency response characteristic regardless of the BASS AND TREBLE knob positions.

(21) TONE CONTROL BASS TURNOVER switch — Bass turnover frequency selector

This switch permits selection of two bass turnover (hinged) frequencies of 200 Hz or 400 Hz. 200 Hz is selected when it is pushed and becomes locked in depressed position. 400 Hz is selected when it is pushed again and is released in extended position.

(22) TONE CONTROL TREBLE TURNOVER switch — Treble turnover frequency selector

This switch permits selection of treble turnover (hinged) frequencies of 2.5 or 5 kHz. 5 kHz is selected when it is pushed and becomes locked in depressed position. 2.5 kHz is selected when it is pushed again and is released in extended position.

(23) SUBSONIC switch — Subsonic Filter

This is used for DISC operation only. When this switch is pushed and locked in, (set to SUBSONIC), subsonic turntable vibrations (25 Hz or lower) are filtered out completely.

(24) LOW FILTER switch

When this switch is locked in (set to LOW) it activates the low frequency filter designed to eliminate turntable rumble, etc. This filter provides a cut of 18 dB/oct below 30 Hz.

(25) HIGH FILTER switch

When this switch is locked in (set to HIGH), it activates the high frequency filter which effectively cuts out high frequency noises such as record scratches and FM interference of 5 kHz or higher at 12 dB/oct.

(26) COMP ON-OFF switch — Compensator switch

At low volume levels, the human ear fails to detect low frequency sounds sufficiently. To compensate for this natural deficiency, this switch activates a compensating circuit which boosts bass level at the lower volume levels.

This compensator is interlocked with the volume control and provides up to 9 dB bass boost at 50 Hz when the volume knob is adjusted to the 10 o'clock position. The compensator is automatically deactivated when the volume knob is set to the 12 o'clock or higher position, after which a flat frequency response characteristic is obtained even though this switch may remain locked in.

(27) SPEAKERS — Selector Switches

Selection between two connected speaker systems can be made with this switch if a relay box (optional equipment) connected between the speakers and the power amplifier is then connected to the SPEAKER CONTROL terminals on the rear panel of this control amplifier.

(28) DISC LEVEL CONTROLS

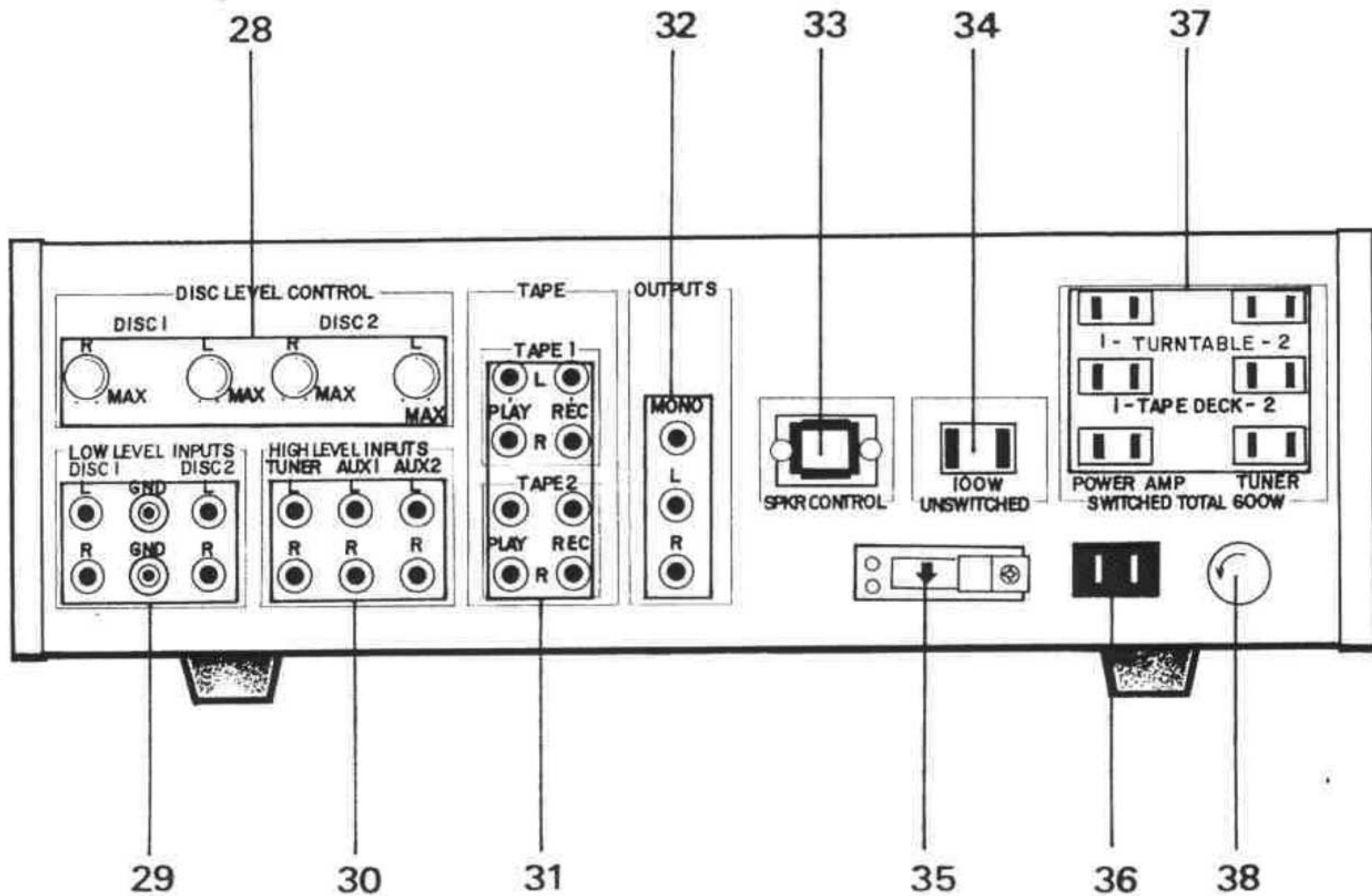
If the output levels of the turntables connected to DISC 1 or DISC 2 jacks are excessive, they can be reduced with these controls. They can also be used to unify the levels of two turntables whose output levels happen to be unequal. (Normally these controls should be set to MAX position)

(29) LOW LEVEL INPUTS jacks

These are input jacks for turntables. DISC 1 and DISC 2 jacks are both provided with input level controls, while DISC 1 has in addition, impedance matching control on the front panel.

(30) HIGH LEVEL INPUTS jacks

These are high level input jacks to accommodate tuners or other auxiliary components.



(31) TAPE — Tape deck connecting jacks

The PLAY jacks are for the LINE OUT jacks of a tape deck, and REC jacks for the LINE IN jacks of a tape deck.

(32) OUTPUTS jacks

The L and R jacks are connected respectively to L and R INPUT jacks of a power amplifier. A monophonic signal is delivered to the MONO jack.

(33) SPEAKER CONTROL receptacle

When the special cord from the relay box (optional equipment) is inserted here, and that box is connected between the two pairs of speaker systems and the power amplifier, the front panel SPEAKERS switches (27) are used to select the speaker systems that are to be activated. (Refer to instructions supplied with the Relay Box concerning connections and operation).

(34) UNSWITCHED — AC Receptacle

When the power cord of this control amplifier is connected to an AC power supply, the same line voltage is delivered to this receptacle regardless of the position (ON or OFF) of the power switch. This AC outlet may be used to power other associated components.

(35) VOLTAGE SELECTOR plug

This is the AC line voltage selector plug. It should be set so that the arrow points to the voltage value of the line voltage available in your area. (see page 10)

(36) AC POWER CORD RECEPTACLE

Connect the AC power cord that is supplied with this unit to this receptacle.

(37) SWITCHED TOTAL 600W — Switched AC convenience outlets

When the power switch of this control amplifier is turned on or off, all components connected to these receptacles are turned on or off simultaneously. Total power consumption of the components connected should not exceed 600 watts. A power amplifier connected to the POWER AMP receptacle can be turned on and off independently with the POWER AMP switch (2) on the front panel.

(38) FUSE

This is an AC line fuse. (see page 10)

OPERATING INSTRUCTIONS

● TURNTABLE

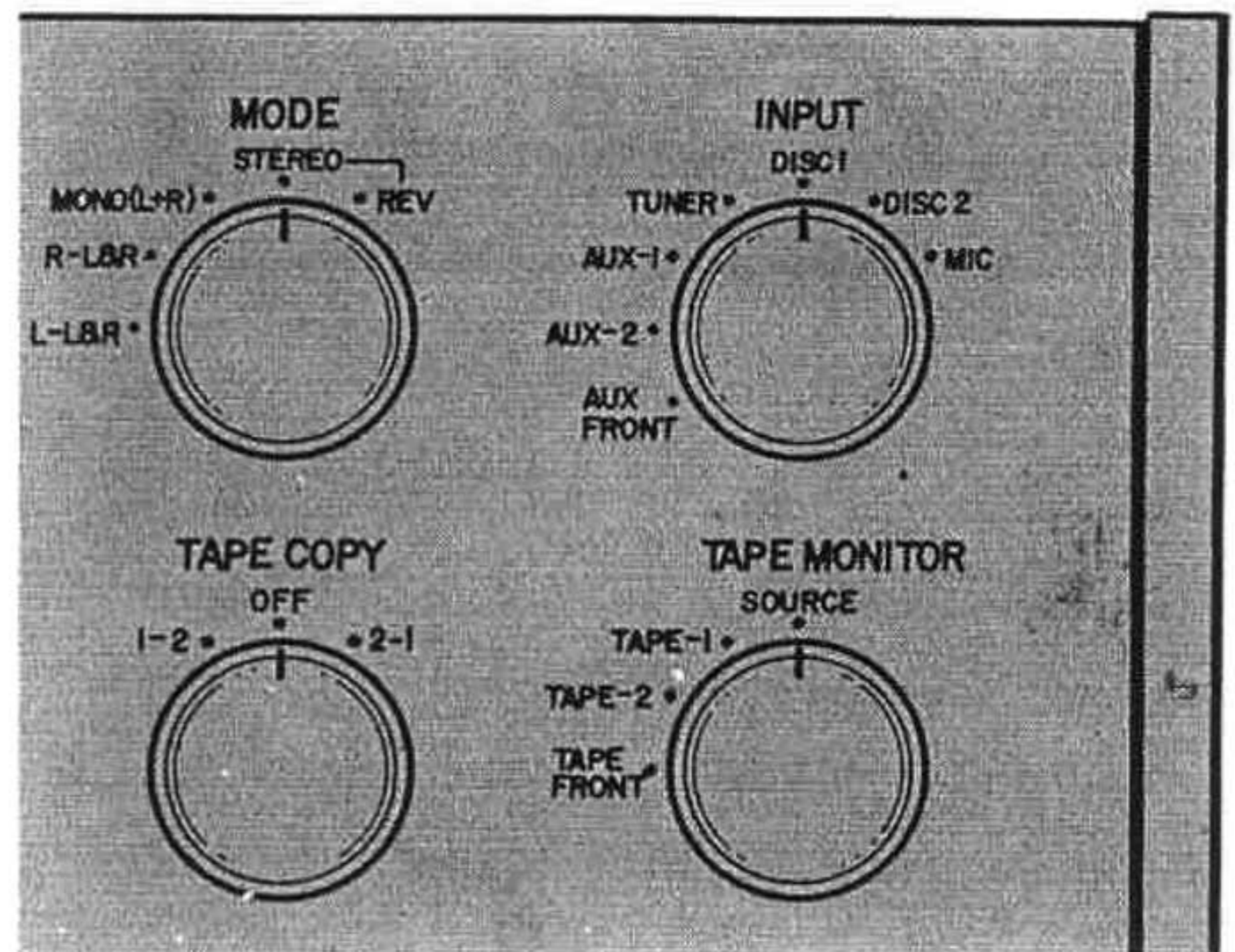
After connecting the output cords of the turntable to DISC 1 or DISC 2 jacks, and having confirmed that Left and Right channel sides have been connected correctly to the L and R jacks respectively, operate the turntable and the control amplifier as follows:

- (1) When the turntable is connected to the DISC 1 jacks, set the front panel DISC 1 IMPEDANCE switch (9) to the impedance of the cartridge used. This will be the 47 K ohms setting for general type cartridges. For moving-coil type cartridges which use a coupling transformer, set this switch closest to the impedance rating of the coupling transformer.
- (2) Set the rear panel DISC LEVEL CONTROL (28) to MAX position.
- (3) Set the INPUT selector (17) to DISC 1 or DISC 2, whichever is connected.
- (4) Set the MODE selector (16) to STEREO.
- (5) Set the TAPE MONITOR control (18) to SOURCE.
- (6) Increase volume gradually.
- (7) If the cartridge output level is excessive, attenuate with DISC LEVEL control (28) on the rear panel.
- (8) Use BALANCE control (14) to balance the levels of the left and right channels while listening to the speaker sound. Under normal conditions, this BALANCE control is set at the center.
- (9) Adjust tone controls to match room acoustics, program source and your personal preference. Under normal conditions, tone controls are set near their mid-point positions.
- (10) Activate the SUBSONIC Filter by pushing in and locking the SUBSONIC switch (23) which will eliminate subsonic turntable vibrations. It is recommended to keep this switch always locked in to protect the speaker from possible harm from large current surges of a subsonic nature.
- (11) When a turntable is connected to DISC, it is possible to enhance the low frequency bass with the front panel DISC LOW ENHANCE switch (10) by changing the characteristic of the equalizer circuit.

● TUNER

Make sure that the left and right channel output cords of the tuner, are correctly connected to the L and R TUNER jacks of this amplifier. Set the INPUT selector to "TUNER" Operation is basically the same thereafter, as just explained for playing disc records.

SUBSONIC FILTER and LOW ENHANCE switches are disconnected.



Correct control positions when listening to disc records.

● CONNECTION FOR 4-CHANNEL OPERATION

A stereophonic system centering on this C-200 can be connected for 4-channel operation as follows after adding a 4-channel decoder and a separate stereo system amplifier and speakers.

Reserve one set of TAPE REC and PLAY jacks of the C-200 for this, and connect the REC jacks to the INPUT of the decoder, and PLAY jacks to the 4 CH (frontside) output also of the decoder. The 4 CH (rearside) output of the decoder should then be connected to the AUX input jacks of the amplifier in the second stereo system. Refer to the Owner's Manual of the other components that are to be used for further connection and operating details.

If it is desired to connect a CD-4 Demodulator, one pair of its output should be connected to the AUX input jacks of the C-200 (and the other pair to the inputs of a second stereo system amplifier.)

● TAPE DECK CONNECTIONS AND OPERATION

Make sure that the tape deck is connected correctly to the control amplifier. Amp side REC jacks should be connected to the LINE IN terminals of the tape deck. Likewise the PLAY jacks should be connected to the LINE OUT terminals of the tape deck. Refer to the tape deck Owner's Manual for operation of the tape deck.

TAPE PLAYBACK

Use the TAPE MONITOR switch to select the desired tape deck. This switch permits selection of one of three tape deck systems that can be connected to TAPE 1, TAPE 2, or TAPE FRONT.

RECORDING

Follow the steps below for tape recording.

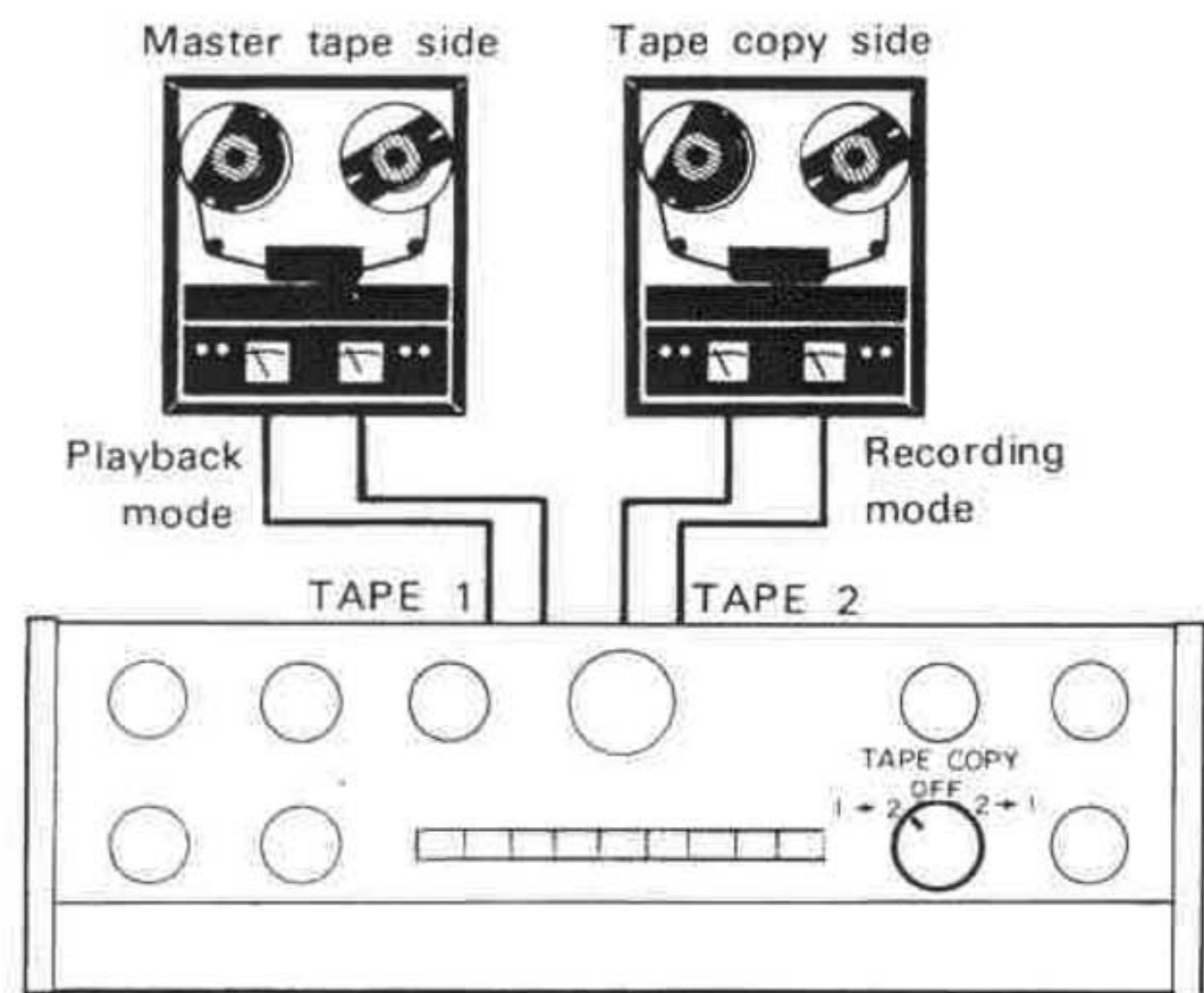
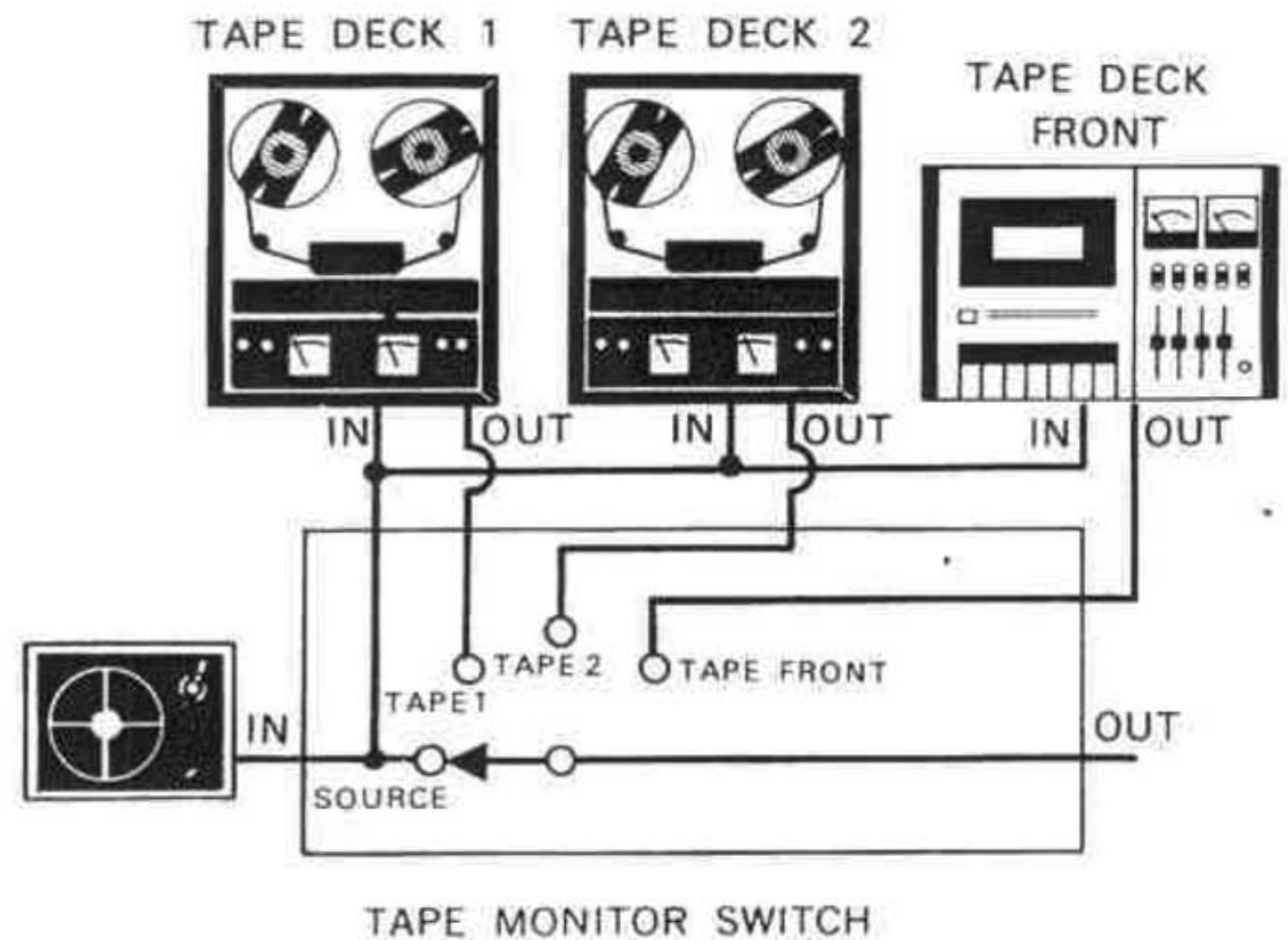
- (1) Select the program source desired and listen to the sound from the speakers.
- (2) Switch the tape deck to the recording mode, and the sound from the speakers will then be recorded.
- (3) The VOLUME, TREBLE and BASS controls of this control amplifier do not affect the recording signal. The recording level is controlled at the tape deck side.
- (4) While recording, the just recorded tape can be monitored by switching the TAPE MONITOR Switch to whichever terminal the tape copying deck is connected.
- (5) Three tape decks can be connected and recordings made on them simultaneously if desired.

HOW TO COPY TAPES

This control amplifier is equipped with a TAPE COPY switch which permits copying a tape from one tape deck to another while simultaneously listening to a different program source, i.e., a radio program or DISC entertainment. To copy tape from one tape deck to another, follow the steps below:

- (1) Connect tapedecks to the TAPE 1 and TAPE 2 jacks.
- (2) When the tape deck connected to TAPE 1 is the master and TAPE 2 is the recording deck, set the TAPE COPY control to 1 → 2. In the reverse case, set this control to 2 → 1.
- (3) Set master and recording decks respectively to playback and recording modes. Signals from the master deck are copied into the tape on the copying deck.
- (4) When TAPE COPY is set to 1 → 2, and TAPE MONITOR is set to "TAPE 1", the master deck can be monitored. Likewise when TAPE MONITOR is set to "TAPE 2", the copied tape can be monitored. (When TAPE COPY is set to 2 → 1, the above is reversed).

- (5) Set TAPE MONITOR to "SOURCE". You can then listen to a different program through the tuner or a turntable while tape is being copied from one tapedeck to another.



How to copy tapes.

MAINTENANCE

● AC LINE VOLTAGE SELECTOR PLUG

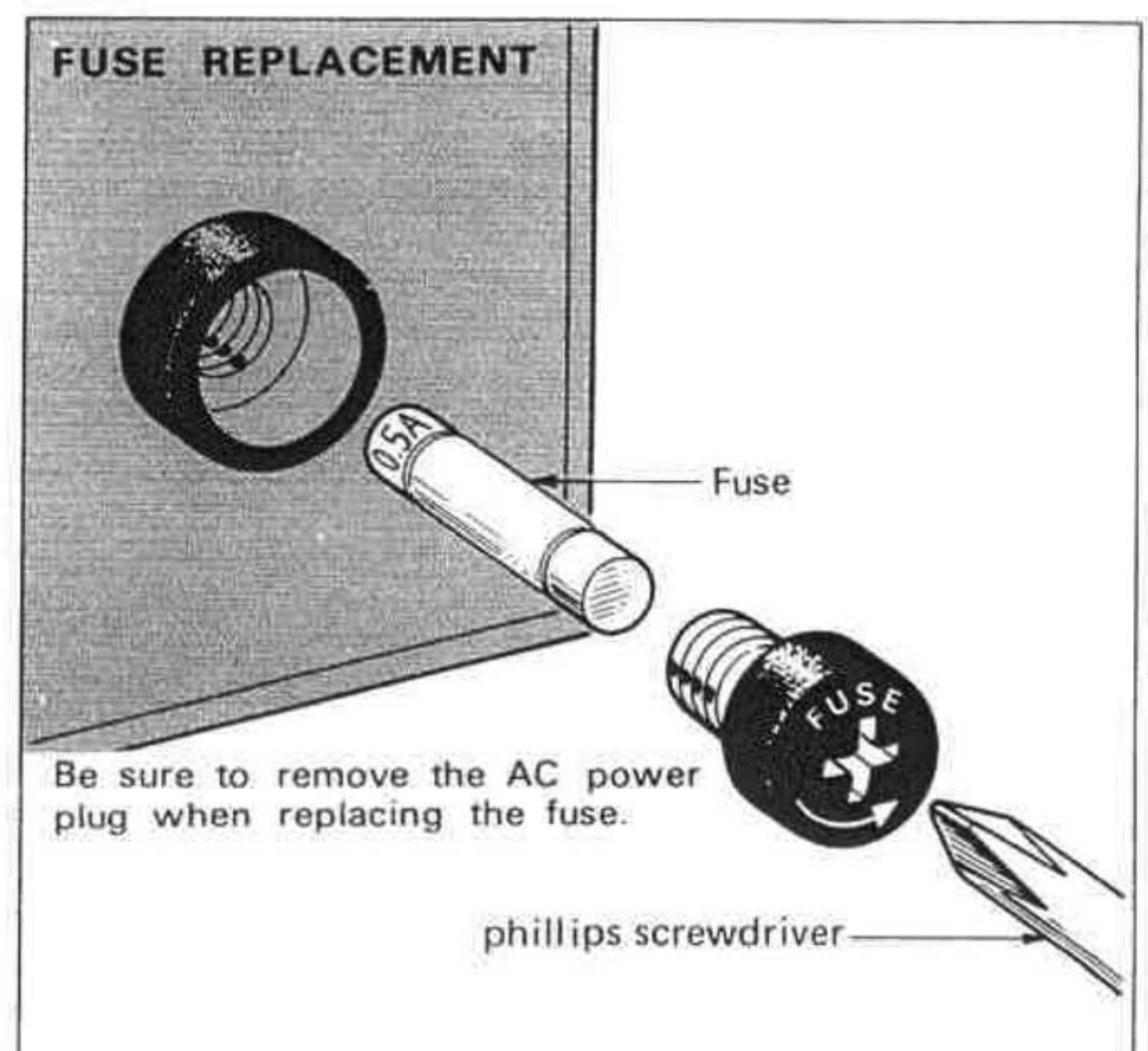
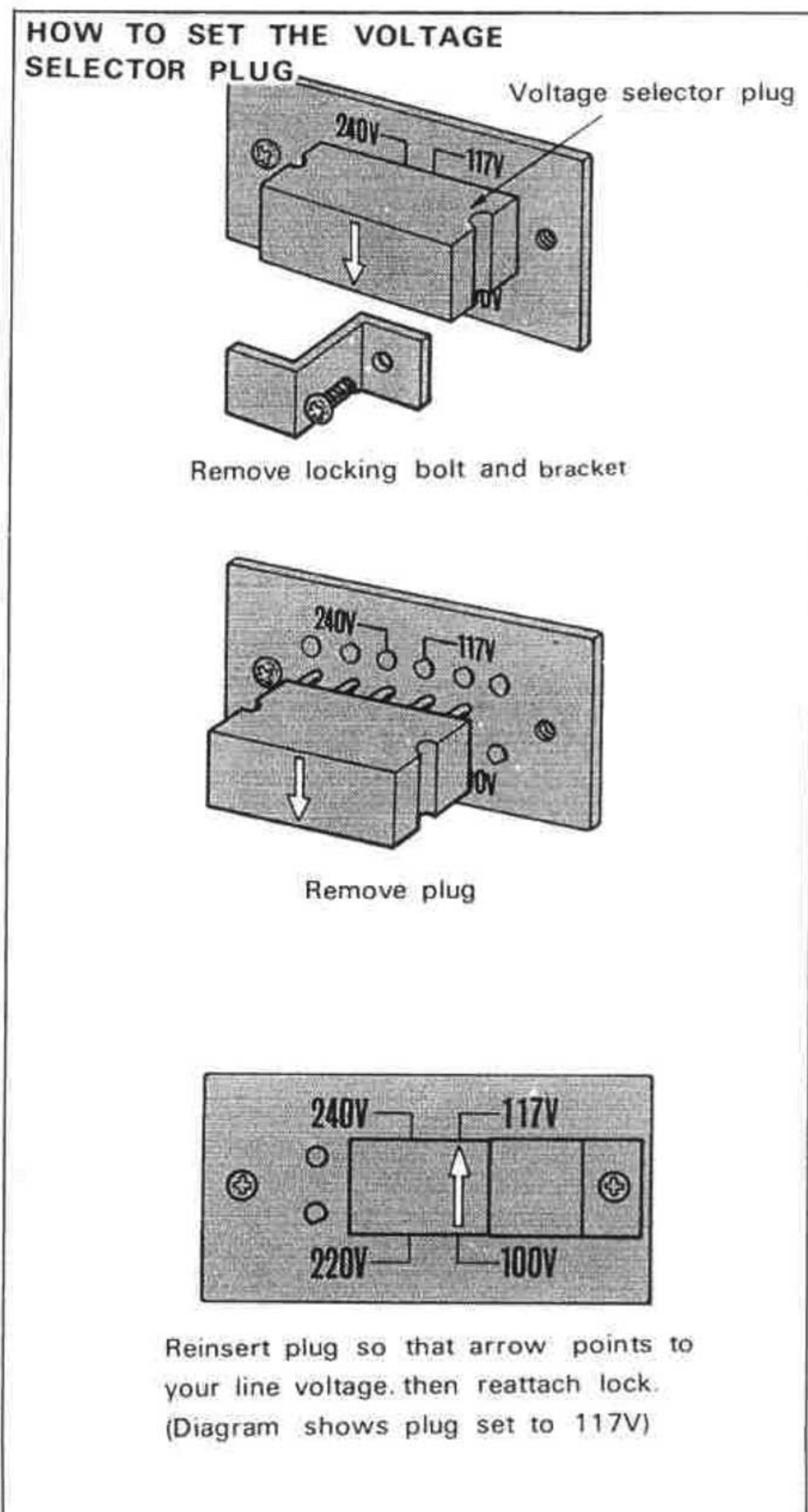
The AC Line Voltage Selector Plug illustrated below provides a safe and sure way to operate this unit from power sources of 100, 117, 220 or 240 Volts A.C. This plug can be inserted into the receptacle jacks in four different ways at which time the arrow will point to one of the following four voltage indications, 100V, 117V, 220V or 240V which will be the line voltage that must be used when the plug is thus inserted. Before operating this control amplifier, check to see that the arrow is pointing to your line voltage. If so, you can safely insert the AC plug into the AC outlet, and you need not ever touch this plug. If you should move

to a different area with a different line voltage, you can remove the locking bracket and this voltage selector plug and reinsert the latter so that the arrow points to your new line voltage. Always remove the AC line plug whenever you plan to touch the Selector Plug and attach the locking bracket, when finished.

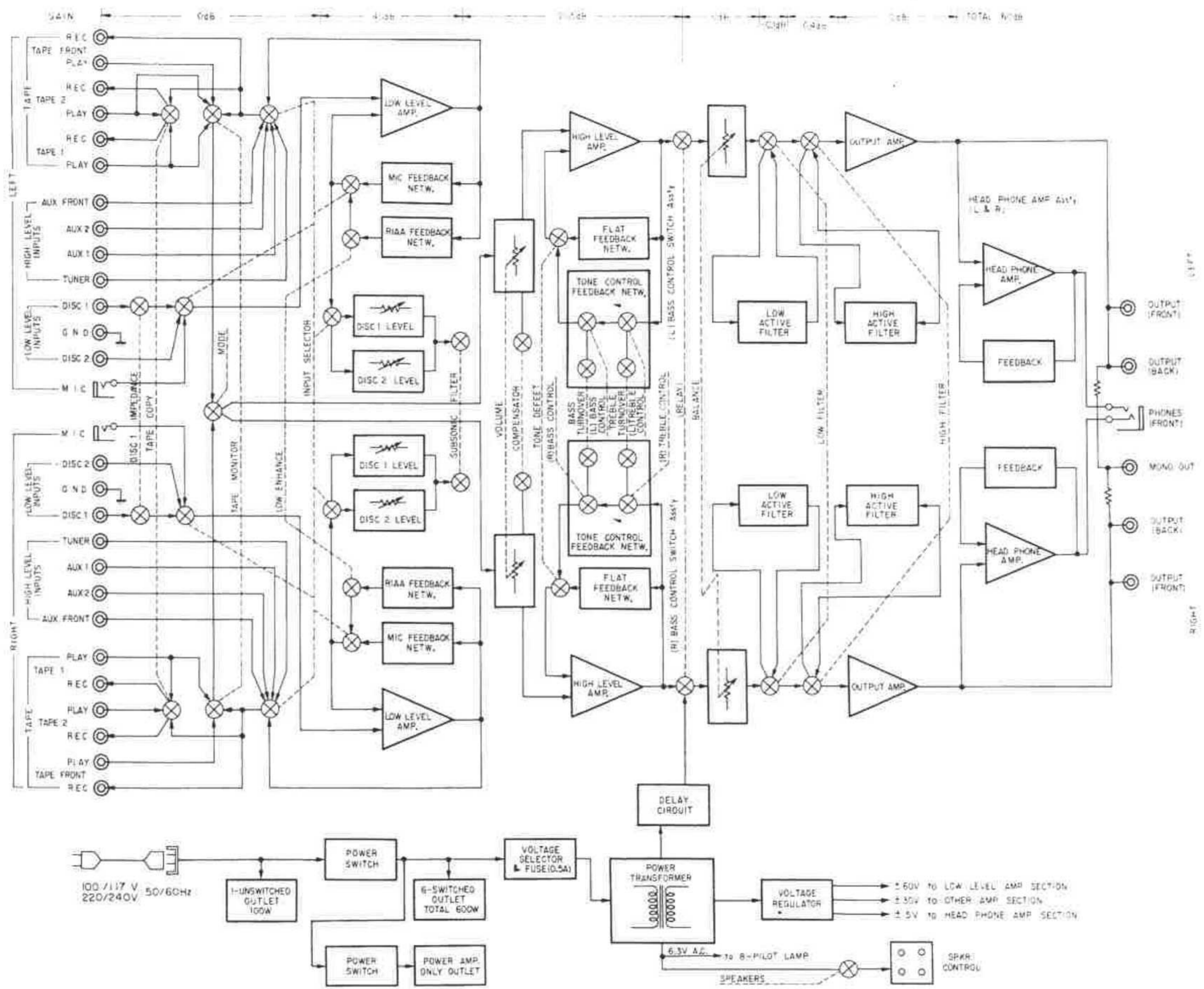
● HOW TO REPLACE THE AC LINE FUSE

If after use, the amplifier should fail to operate due to fuse failure, check its cause and eliminate it, before replacing the fuse. Sometimes a fuse may fail by itself without cause.

Use the same type Slow-blow 0.5A glass tube fuse for 100, 117V as shown below and 1/4A for 220, 240V when making fuse replacements.



BLOCK DIAGRAM



GUARANTY SPECIFICATIONS

PERFORMANCE GUARANTY:

Products of Accuphase guarantee specifications stated.

FREQUENCY RESPONSE:

High level input: +0, — 0.2 dB 20 Hz to 20,000 Hz
Low level input: +0.2 — 0.2 dB 20 Hz to 20,000 Hz

DISTORTION:

Lower than 0.05% at rated output level, 20 Hz to 20,000 Hz.

INPUT SENSITIVITY AND IMPEDANCE:

Disc 1	2—6 mV*	20 K ohms, 30 K ohms, 47 K ohms.
Disc 2	2—6 mV*	47 K ohms.
Mic	2 mV	47 K ohms.
Tuner	200 mV	130 K ohms.
Aux 1, 2, FRONT	200 mV	130 K ohms.
Tape Play 1, 2, FRONT	200 mV	130 K ohms.

(* 2—6 mV variable)

MAXIMUM INPUT FOR DISC INPUT:

400 mVrms at DISC level control maximum for 1 kHz.
1.2 Vrms at DISC level control minimum for 1 kHz.
400 mV—1.2 Vrms, distortion 0.05% at 1 kHz

OUTPUT LEVEL AND IMPEDANCE:

Main Output	2.0 V*	200 ohms.
Headphones	0.4 V*	0.3 ohms.
Tape Rec. 1, 2, FRONT	200 mV	200 ohms.
Mono Output	0.42 V	38 K ohms.

(* at rated input, volume control maximum)

MAXIMUM OUTPUT LEVEL:

10 Volts at 0.05% distortion.

VOLTAGE AMPLIFICATION IN DECIBELS:

Tuner, Aux, Tape Play input:

to Main Output	20 dB.
to Tape Rec.	0 dB.
to Headphones	6 dB.

Disc 1, Disc 2, and Mic Input (at 1 kHz):

to Main Output	60 dB.
to Tape Rec.	40 dB.
to Headphones	46 dB.

HUM AND NOISE:

Tuner, Aux, Tape Play: 90 dB below rated output.
Disc, Mic: 74 dB below 10 mV input.

TONE CONTROLS:

10-step Rotary Switch for each channel with turnover frequency switches.

BASS:

Turnover frequency 400 Hz: ±10 dB (2 dB step) at 100 Hz.
Turnover frequency 200 Hz: ±10 dB (2 dB step) at 50 Hz.

TREBLE:

Turnover frequency 2,500 Hz: ±10 dB (2 dB step) at 10,000 Hz.
Turnover frequency 5,000 Hz: ±10 dB (2 dB step) at 20,000 Hz.

DISC LOW ENHANCEMENT (for Disc input):

0 dB, +0.5 dB, +1 dB at 100 Hz to RIAA standard characteristics.
Bass tone becomes richer when switched to +0.5 dB or +1 dB.

COMPENSATOR:

ON position boosts low frequencies for low level listening.
+9 dB at 50 Hz (at volume control —30 dB).

FILTERS:

Disc Subsonic Filter:	25 Hz cutoff	6 dB/oct.
Low Filter:	30 Hz cutoff	18 dB/oct.
High Filter:	5,000 Hz cutoff	12 dB/oct.

VOLUME CONTROL:

Less than ±1 dB tracking error control down to —60 dB.

POWER REQUIREMENT:

Voltage selector for 100V, 117V, 220V, 240V 50/60 Hz operation.
Consumption: 36 Watts.

SEMICONDUCTOR COMPLEMENT:

80 Transistors, 35 Diodes.

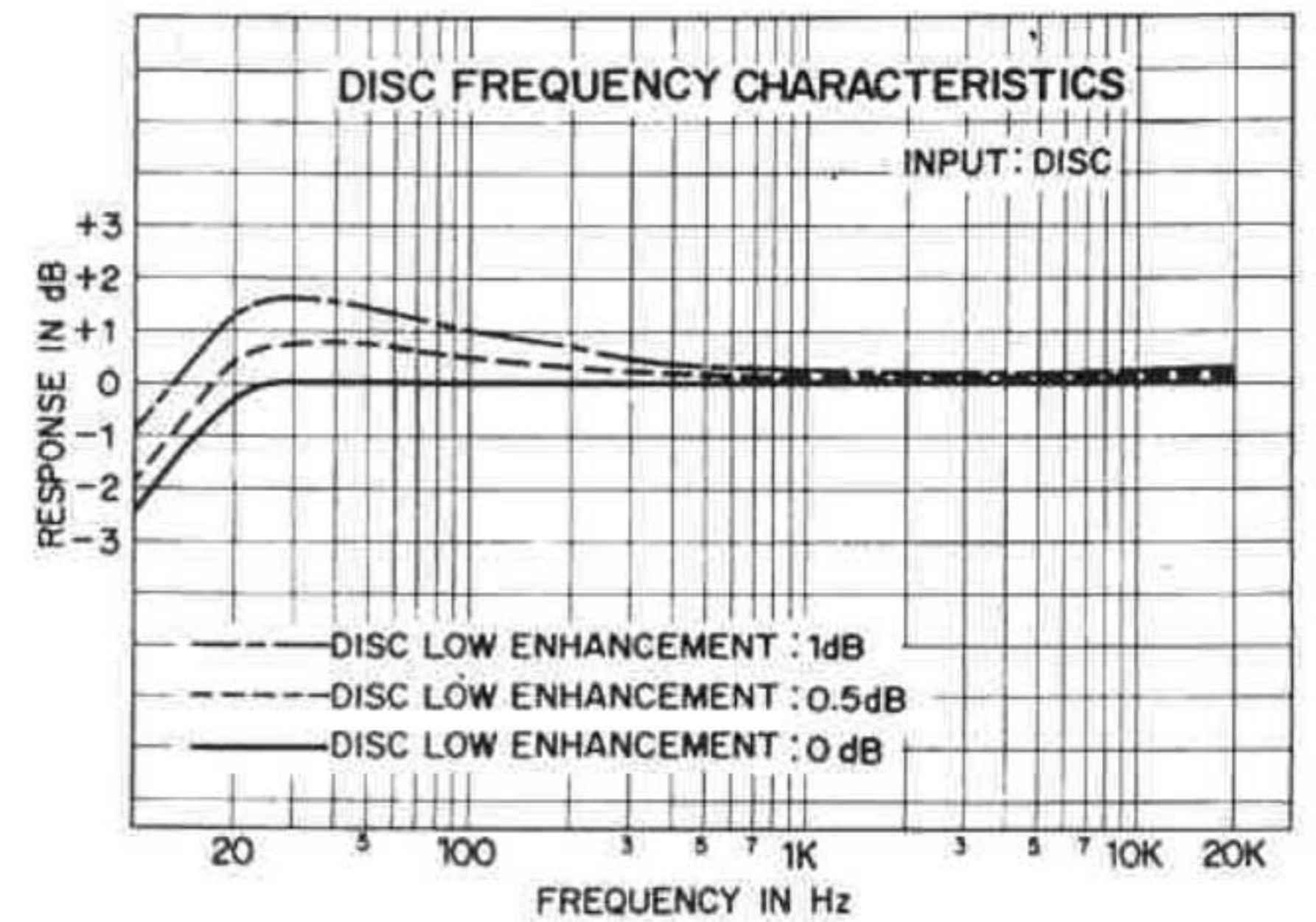
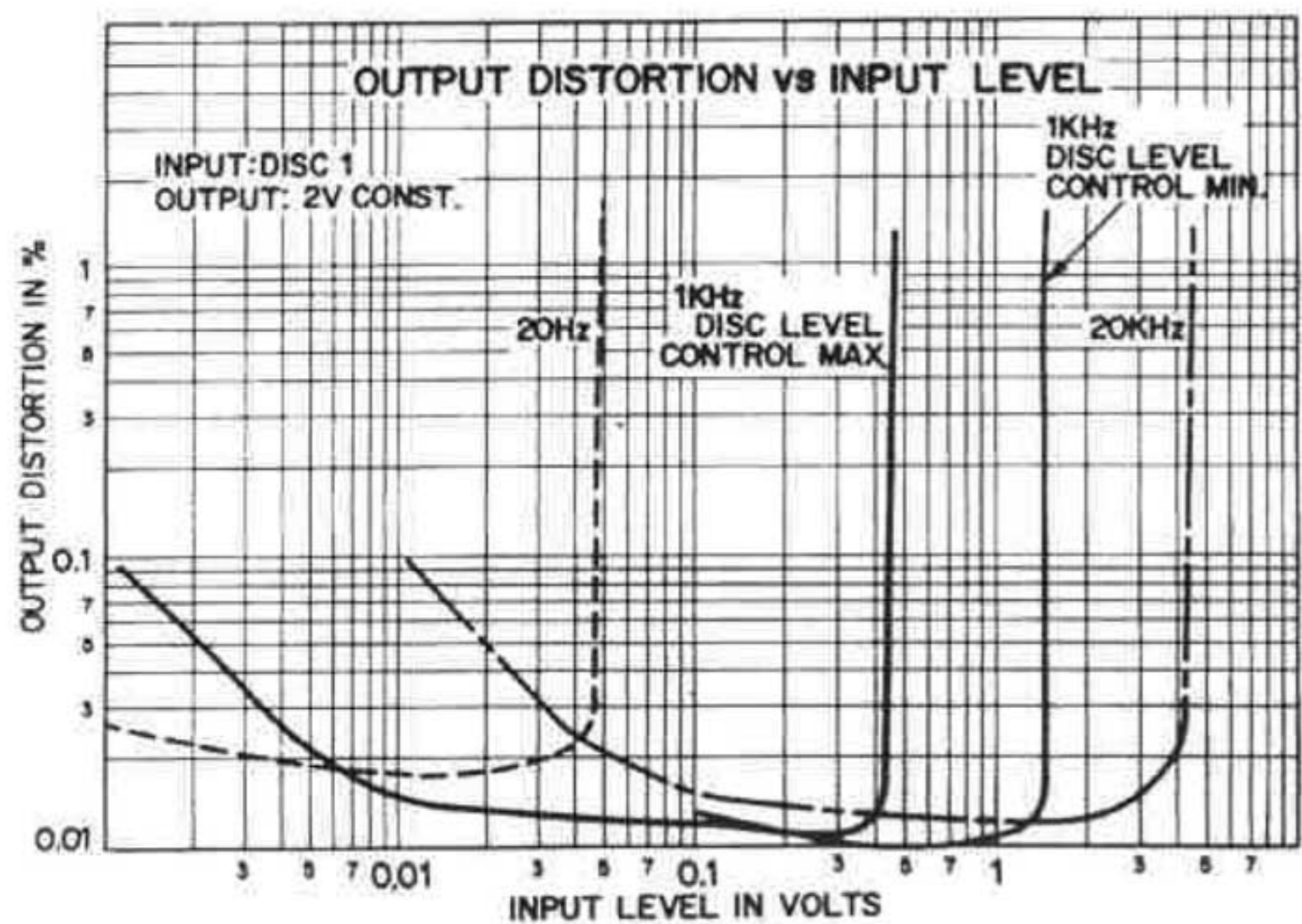
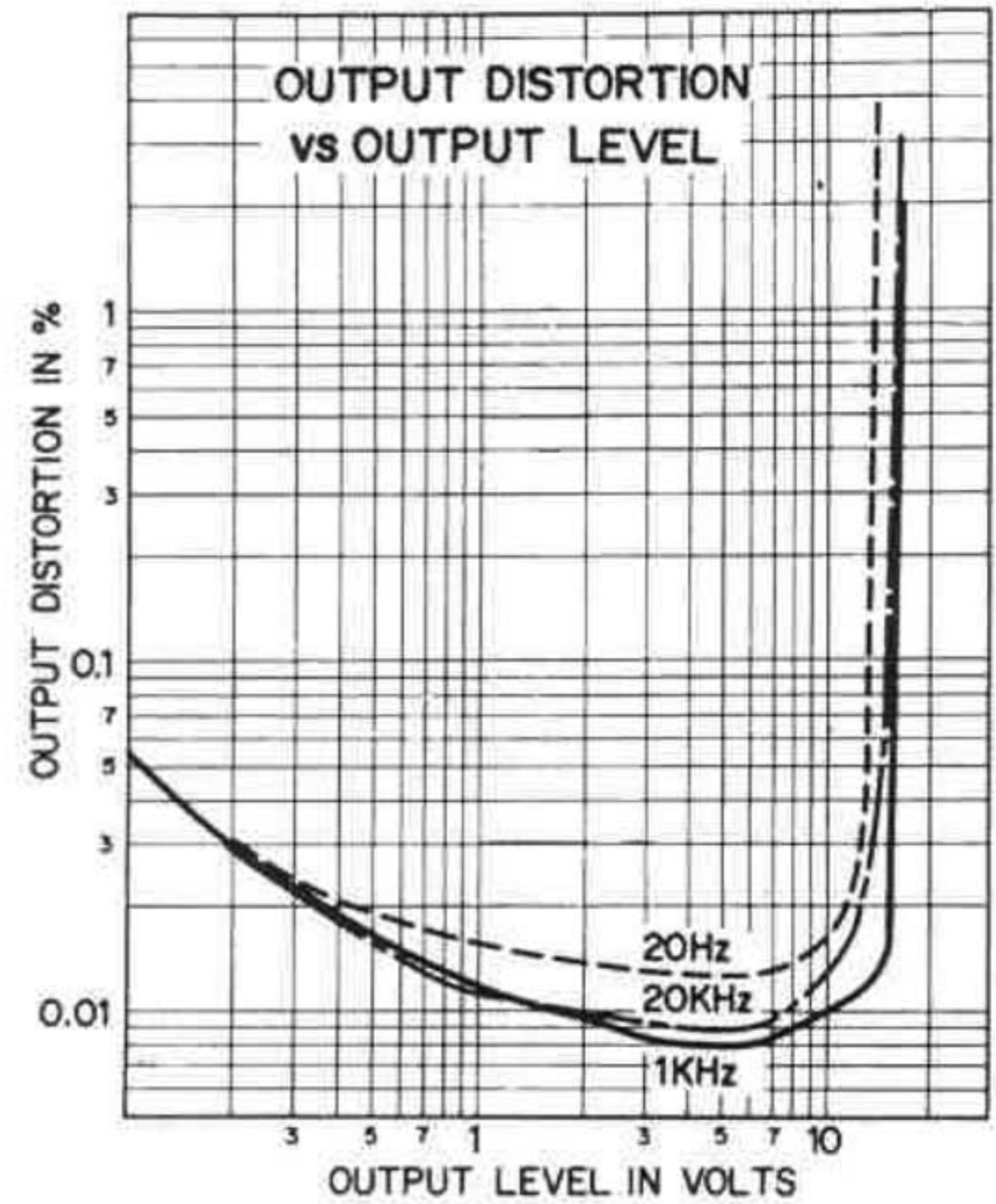
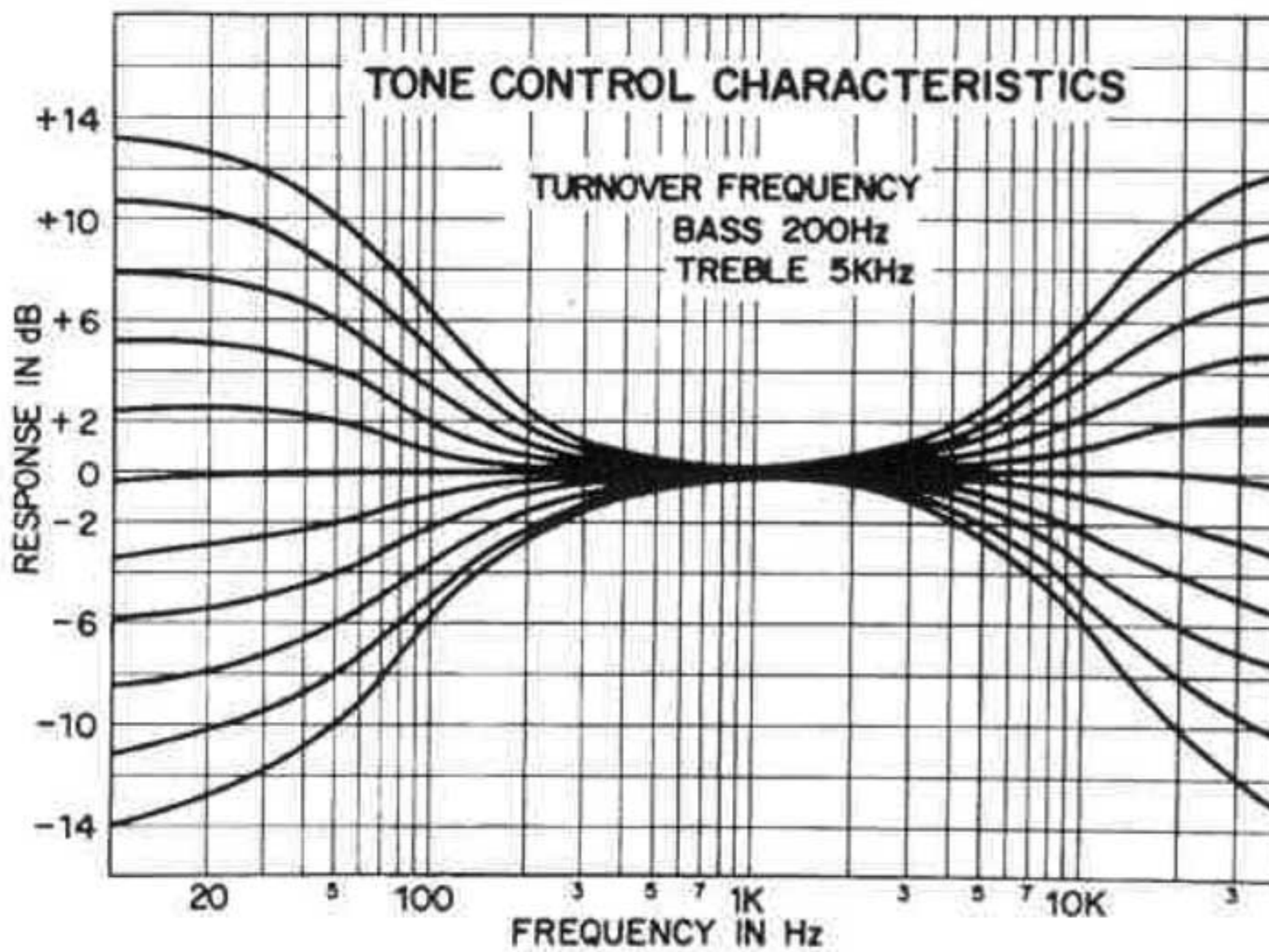
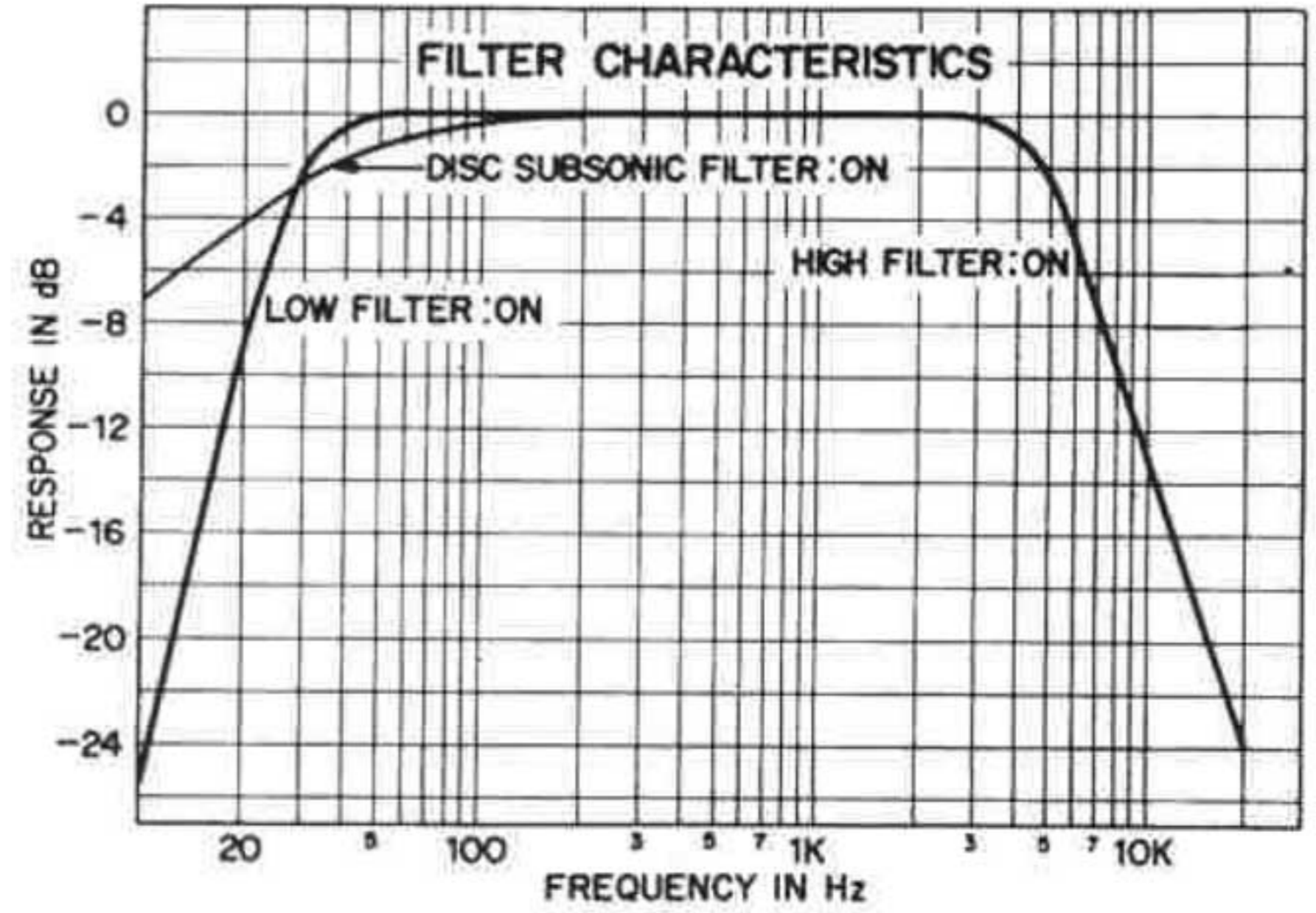
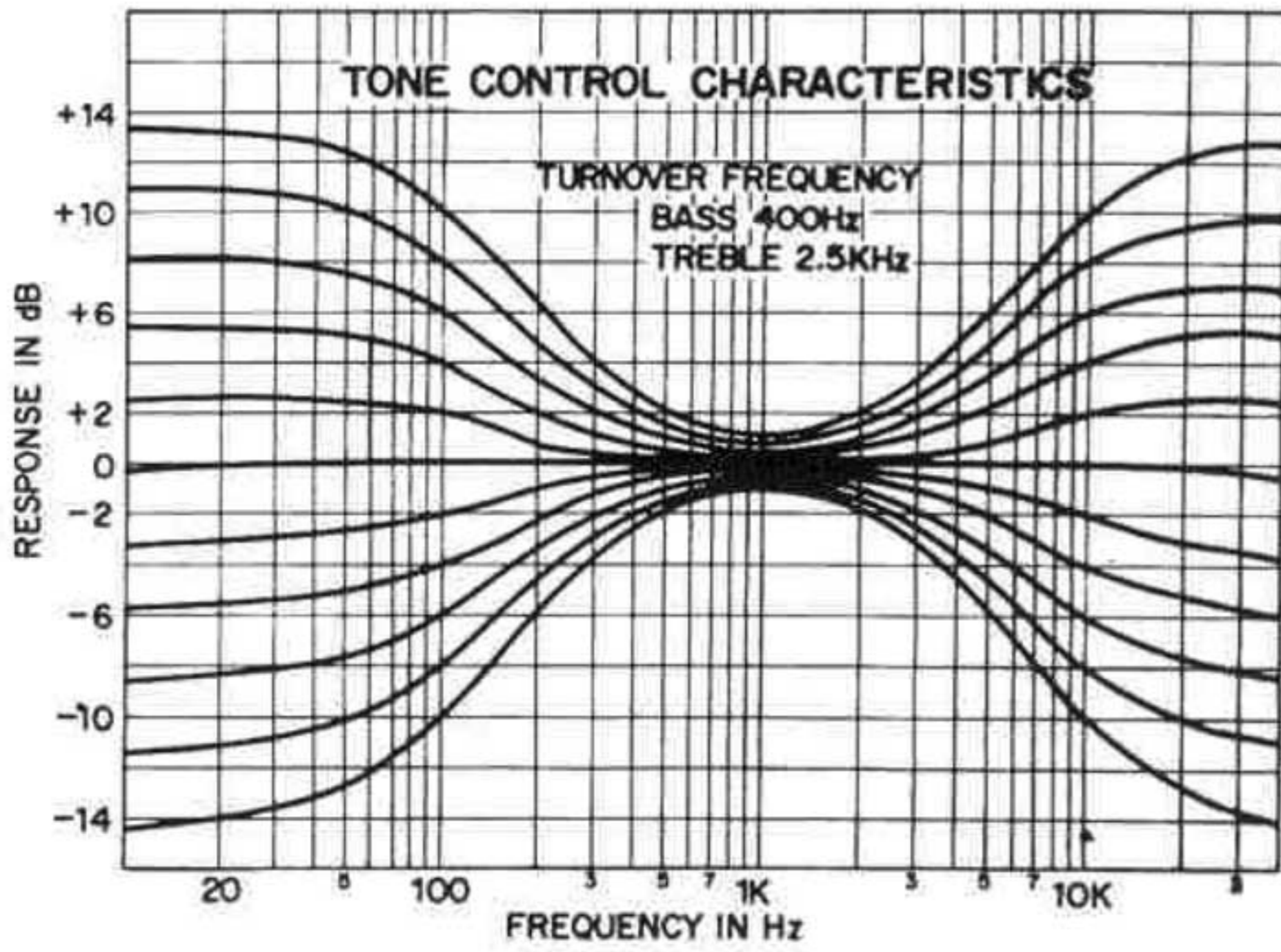
DIMENSIONS:

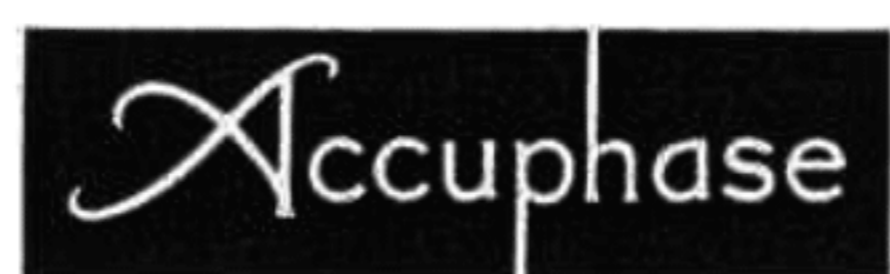
445 mm (17½ inches) wide, by 152mm (6 inches) high, 355mm (14 inches) deep

WEIGHT:

14 kgr. (30.8 pounds) net, 18.3 kgr. (40.6 pounds) in shipping carton.

PERFORMANCE CURVES





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