

AU-517

**OPERATING INSTRUCTIONS
MODE D'EMPLOI
BETRIEBSANLEITUNG**



- Read this manual before use.
- Lire cette notice avant l'utilisation.
- Vor der Verwendung diese Anleitung durchlesen.

Sansui

We are grateful for your choice of this fine Sansui high fidelity product. Before you operate it, we suggest that you read this booklet once through carefully, familiarizing yourself with the important precautions, operational procedures and every one of the product's many features. This will help you avoid possible damage and ensure that the product's superb performance will be yours to enjoy for many years to come.

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

- Do not lose the Warranty Card that carries your unit's Model No. and Serial No.

For the United Kingdom only

Important

The wire in the mains lead are coloured in accordance with the following code:

Blue	:	Neutral	or	Black	:	Neutral
Brown	:	Live		Blue	:	Live

If the colours of the wire in the mains lead of this equipment should not correspond to the coloured markings identifying to the terminals in your plug, proceed as follows:

As the mains lead consist of Blue & Brown wire, Blue wire (Neutral) must be connected to the terminal 'N' or coloured black, and Brown wire (Live) connected to the terminal 'L' or coloured red.

As the mains lead consist of Black & Blue wire, Black wire (Neutral) must be connected to the terminal 'N' or coloured Black, and Blue wire (Live) connected to the terminal 'L' or coloured red.

Ensure that your equipment is connected correctly. If you are in any doubt, consult a qualified electrician.

For equipment purchased outside the U.K. with a "EUROPEAN" two-pin mains plug, the plug should be removed and connection made in accordance with the above instructions. Ensure also that the equipment is properly adjusted to 240 volts operation. If you are in any doubt, consult a qualified electrician, or our Service Agent in the U.K.

PRECAUTIONS

Note

- * Don't remove the cabinet cover or bottom board of the unit.

Installation

- * Never install the unit in dusty or humid locations, or in close proximity to heating appliances. Also, do not place it near a flower basin or fish bowl, for accidental spillover may cause fire, electrical shock and/or breakdown.
- * Keep the unit away from TV sets to avoid buzz noise.
- * When mounting the unit on a shelf, be sure that its supports are solidly fixed.

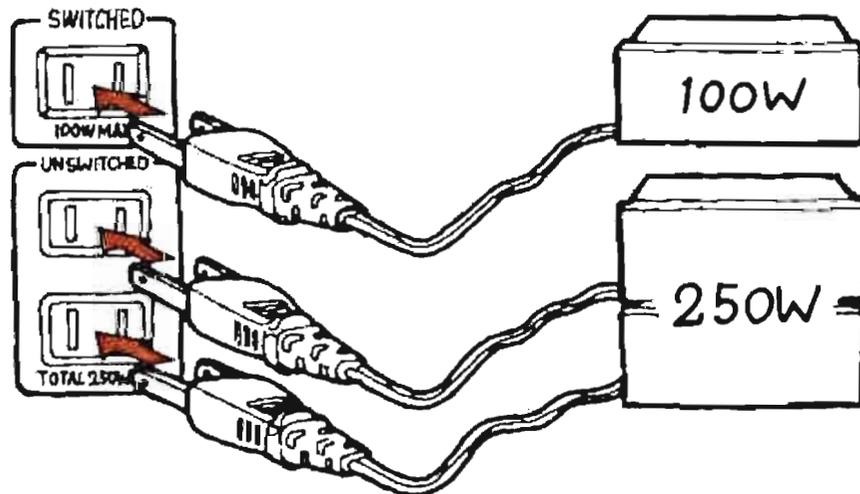
Connection

- * When connecting or re-locating the unit, be sure to turn the power off or disconnect the power cable.
- * Be sure not to confuse the right channel with the left, plus cables with minus or inputs with outputs. Check each step carefully.
- * Use connection cords of dependable quality. Check that connections are secure and that leads of connection are not frayed or in contact with other objects. Poor connection may cause hum noise or breakdown.
- * Short pin-plugs (supplied) should be inserted into unused PHONO terminals, never into other terminals, for they may interrupt sound coming from speakers.

NOTE: No AC outlet is provided on the model sold in Europe.

NOTA: Aucune prise de puissance de sortie à courant alternatif n'est prévue sur le modèle vendu en Europe.

HINWEIS: Das in Europa verkaufte Modell hat keine Wechselstromsteckdose.



AC outlets

Of the three AC outlets provided on the rear panel, the one, marked "SWITCHED," is controlled by the front-panel POWER switch. It is convenient to use it to power a program source component such as your turntable, etc.

The other two AC outlets, marked "UNSWITCHED," are not controlled by the unit's POWER switch; so long as the unit is connected to a wall outlet, the connected components are also powered.

The "SWITCHED" and "UNSWITCHED" outlets have a capacity of 100 watts and 250 watts respectively. Do not connect any component whose power consumption exceeds the capacity of each outlet, as it is extremely dangerous. The power consumption rating is usually listed in the specification chart of the component, or sometimes on the equipment itself; be sure to check the rating.

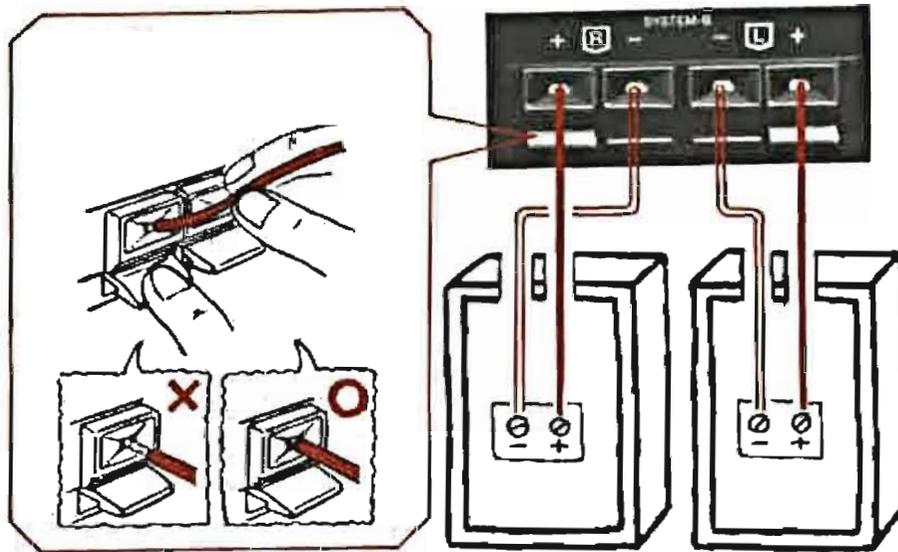
- In case you have connected a component to one of the unit's AC outlets and then another component to the first component's AC outlet, be sure to add the second component's rated power consumption to the consumption of the components connected to the unit itself.

Speaker connections

Up to two pairs of speaker systems can be connected to this unit, and selected by operating the front-panel SPEAKERS switch. But if this switch is set at A + B, no sound will be heard unless both pairs of speaker systems are connected to the unit. Also, if you use speaker systems whose impedances are 4 ohms or less each, it may cause this unit to break down. Be sure to check out the impedance of a speaker system (usually indicated on its name plate or operating manual) before you connect it to this unit.

Ventilation

Breakdown may occur when you use the unit over a long period of time with ventilation holes on its bottom and top panels obstructed. Pay extra attention when placing objects atop the unit, and when rack mounting the unit.



CONNECTION

Cautions

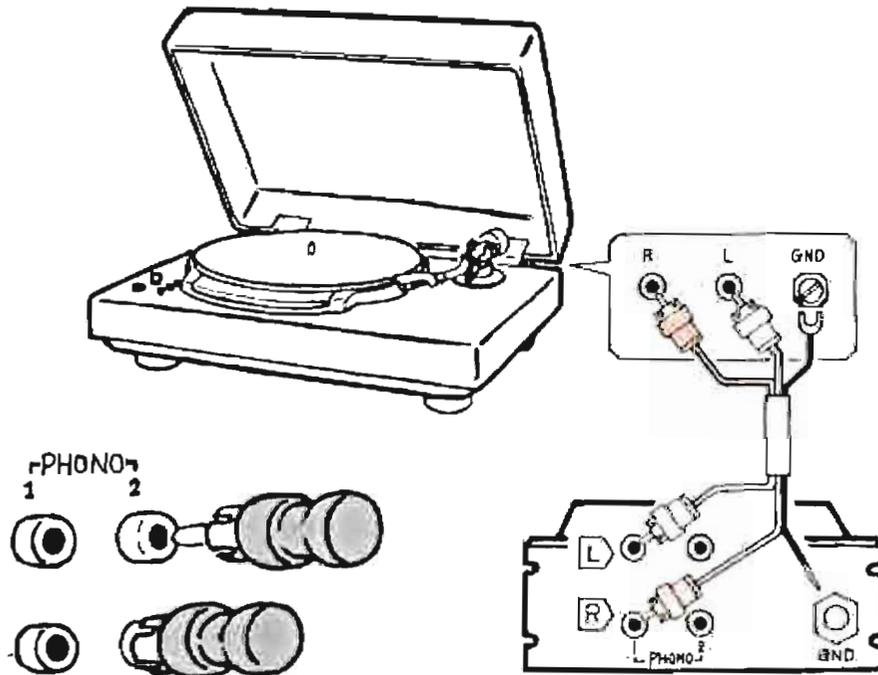
- When connecting or re-locating the unit, be sure to turn the power off or disconnect the power cable.
- Noise might be heard, or breakdown result, when (1) connection cords are not of dependable quality, (2) frayed wires of connection cords are in contact with some object or (3) connections are not properly made. When connections are completed, therefore, we suggest that you check not only connections but also plugs and cables.
- The shorting pin plugs should be inserted into unused PHONO input terminals, but not into any other terminals; otherwise, signals will be interrupted and sound may not come from speakers.

Speaker connection

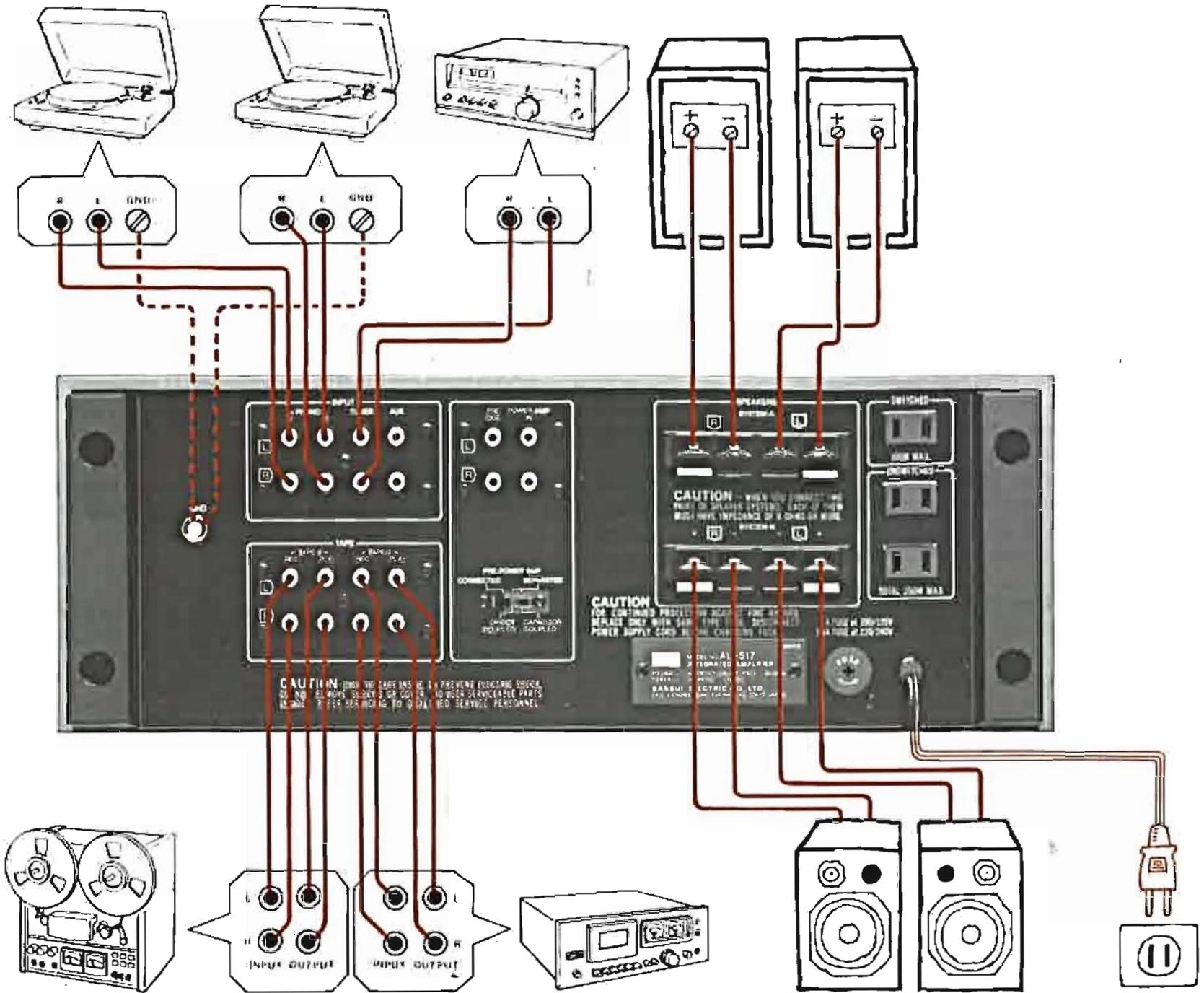
To SPEAKERS SYSTEM -A, -B terminals, connect speaker cords taking care not to confuse the right channel with the left and plus polarity with minus.

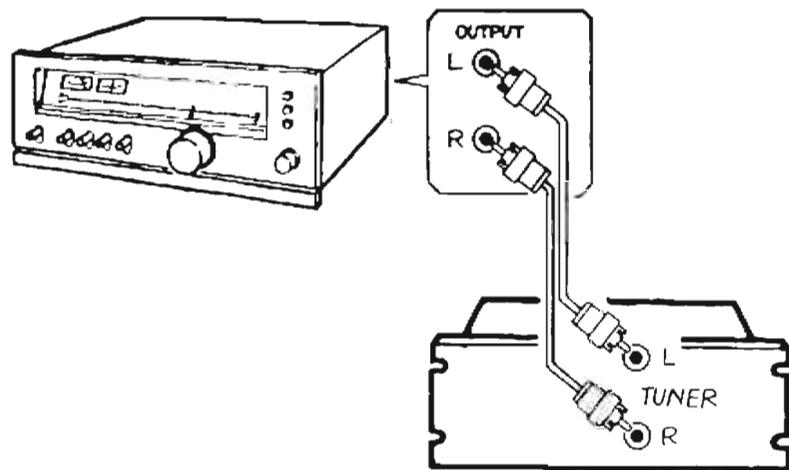
Turntable connection

Connect your turntable to the PHONO-1 terminals. When using two turntables or two tonearms, use the PHONO-2 terminals too. When your turntable is equipped with a grounding cable, connect it to the unit's GND terminal. But disconnect it when you notice increased hum.



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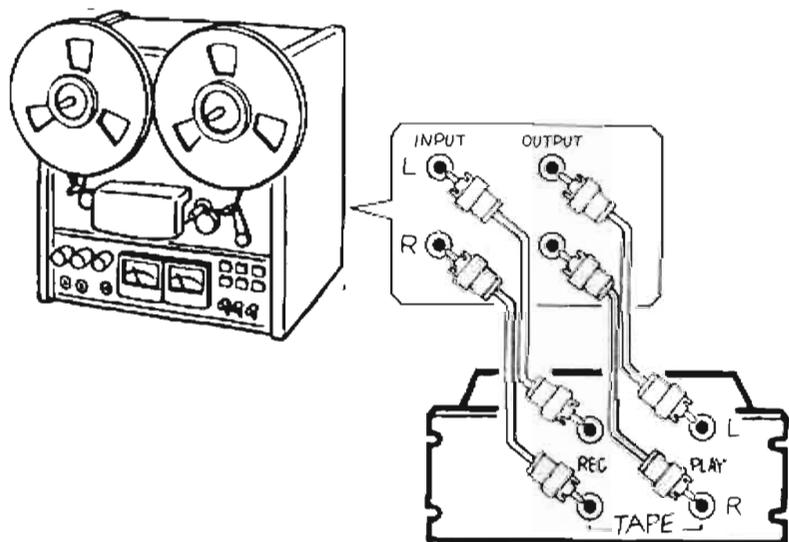


Tuner Connections

Connect the output terminals of a tuner to the TUNER input terminals on the rear panel.

Tape deck connection

You can connect up to two tape decks to the unit. Connect the unit's TAPE REC terminals to the line input terminals of your tape deck, and the unit's TAPE PLAY terminals to the output terminals of the deck.

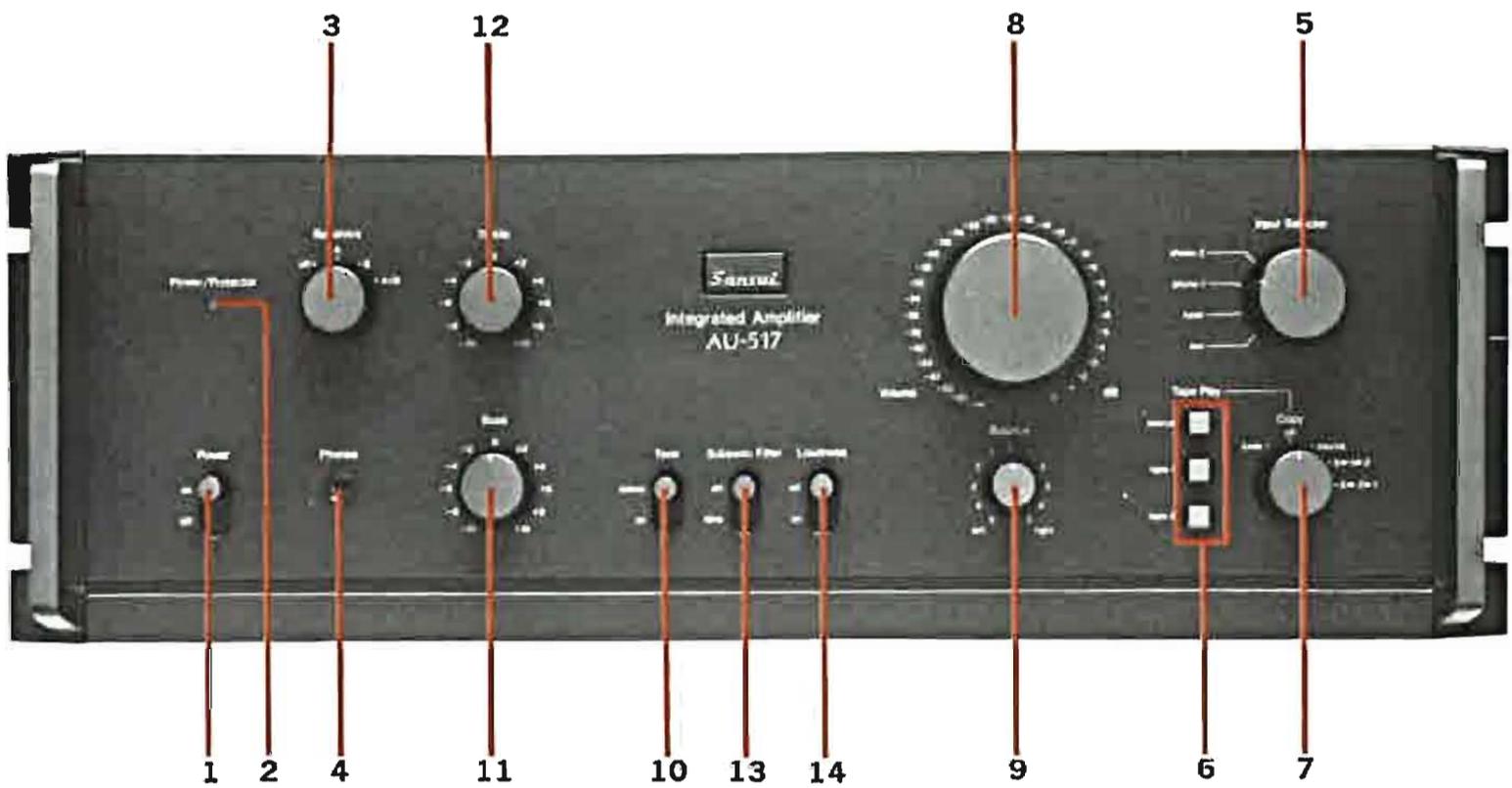


* Instructions and requirements indicated may vary to some extent depending on sales area, local laws and regulations.

• This page folds out for use as reference while reading the rest of the booklet.

• Cette page se plie à l'extérieur pour l'utiliser comme référence tout en lisant le reste de la notice.

• Bitte klappen Sie diese Seite heraus, wenn Sie den Rest dieser Anleitung durchlesen.



PANEL INFORMATION

1 POWER Switch

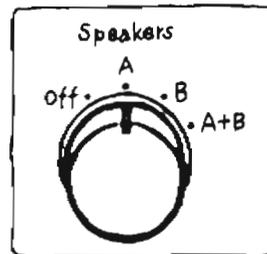
2 POWER/PROTECTOR Indicator

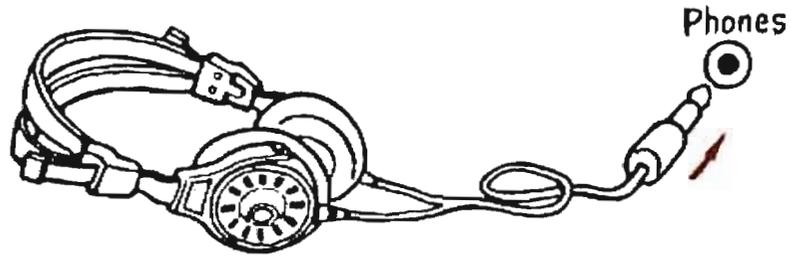
When the POWER switch is turned on and power supplied to the unit, the Indicator will flash on and off. In several seconds, the Indicator will stay lit, indicating the unit is ready to operate to its full capacity. Also, whenever the protection circuit in the unit is activated, the Indicator will flash to notify you of an abnormal condition inside the unit. When you notice this, shut off the POWER switch immediately and eliminate the cause (such as a short-circuit of the speaker terminals), then turn the POWER switch on again.

3 SPEAKERS Switch

The SPEAKERS switch selects the speaker system(s) you want to hear.

- OFF:** To cut off the source from the speaker systems when listening with headphones.
- A:** To drive the speaker systems connected to the rear-panel SPEAKERS SYSTEM-A terminals.
- B:** To drive those connected to the SYSTEM-B terminals.
- A + B:** To drive both A and B pairs of speaker systems.
- When connected speaker systems have rated impedance of 4 ohms or less, do not turn the SPEAKERS switch to the A + B position.





4 PHONES Jacks

To use a headphone set, insert its plug into the PHONES jack. The SPEAKERS switch should be set to OFF.

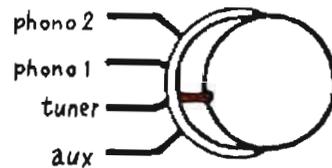
5 SELECTOR Switch

Use this switch when listening to records and broadcasts.

PHONE-1, 2: For playing disc records.

TUNER: To hear radio broadcasts through a connected tuner.

AUX: To hear components connected to the AUX terminals.



6 TAPE PLAY Buttons

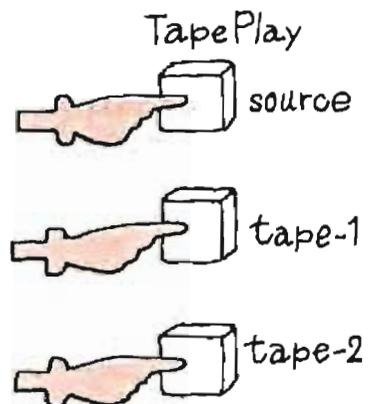
Push one when wanting to hear a tape or monitor a recording. The buttons are mutually exclusive.

SOURCE: Operate (push) this button when hearing records and radio programs but not tapes.

TAPE-1: Push this button when hearing tapes played on a tape deck connected to the rear-panel TAPE-1 PLAY terminals.

TAPE-2: Push this button when hearing tapes on another deck connected to the TAPE-2 PLAY terminals.

- Keep the SOURCE button depressed unless you want to hear tapes; So long as either the TAPE-1 or TAPE-2 button is depressed, you do not hear records or radio broadcasts from speakers.



7. TAPE COPY Switch

Operate this button when recording or dubbing tapes. The switch should be at OFF position unless you want to record or dub tapes.

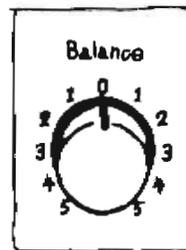
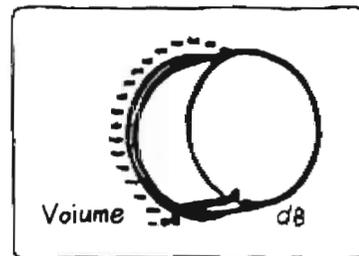
TUNER: Use this position when recording off the air from the connected tuner. Signals from the tuner are sent to both connected tape decks. Remember that recording off the air may be undertaken regardless of the position of the INPUT SELECTOR switch.

OFF: Use this position when you do not record or dub. The tape recording circuits (TAPE REC terminals) of the unit are electrically disconnected from the connected tape decks to avoid electrical interaction.

SOURCE: Use this position when recording records and radio programs. Signals from the component selected by the INPUT SELECTOR switch are sent to both connected tape decks.

S▶ 1 ▶ 2: Use this position when dubbing a program source to the TAPE-1 connected tape deck and/or from the TAPE-1 to TAPE-2 connected tape deck.

S▶ 2 ▶ 1: Use this position when dubbing a program source to the TAPE-2 connected tape deck and/or from the TAPE-2 to TAPE-1 connected tape deck.

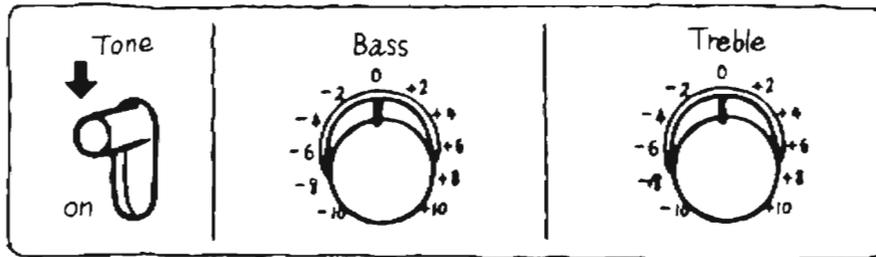


8 VOLUME Control

The overall volume is controlled by the VOLUME control. Adjust it while actually listening to music. The more it is turned to right, the louder the volume becomes.

9 BALANCE Control

The volume of the left and right speakers can be adjusted by the BALANCE control. As the control is turned counterclockwise from the center position, the sound from the left speaker becomes louder than that from the right speaker, and vice versa.



10 TONE Switch

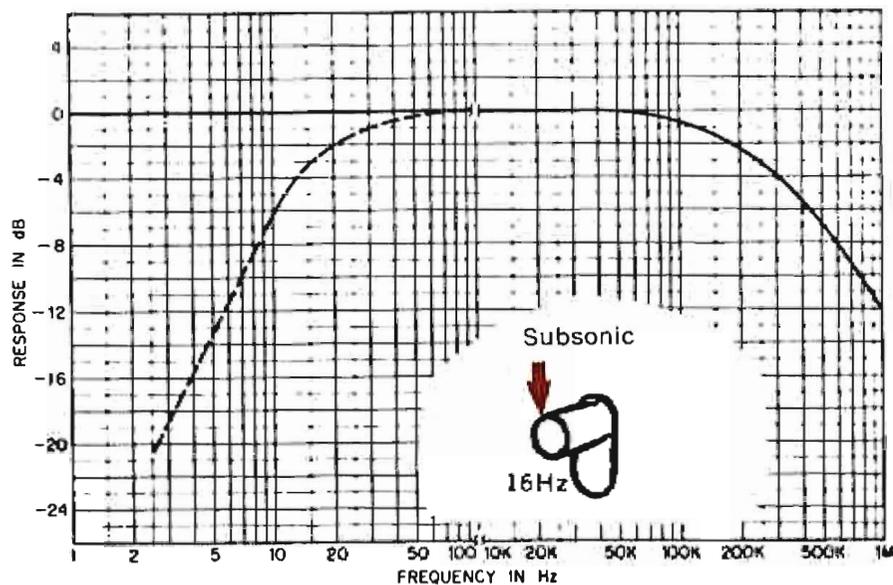
Use the ON position when you want to control tonal response with the BASS and TREBLE controls. Use the DEFEAT position when you want a "flat" response without having to adjust the BASS and TREBLE controls themselves.

11 BASS Tone Control

Use the BASS tone control to adjust the bass or low-frequency response of such an instrument as a bass.

12 TREBLE Tone Control

Use the TREBLE tone control to adjust the treble or high-frequency response of instruments such as cymbals.



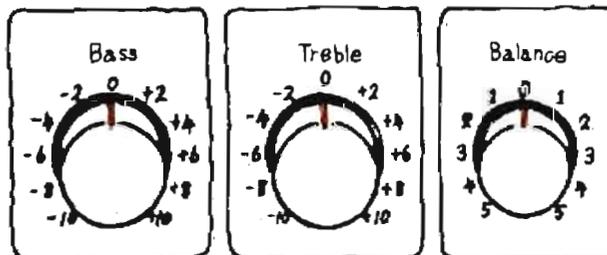
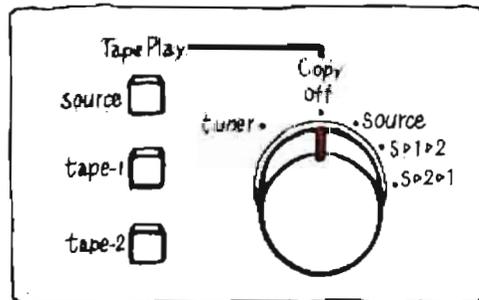
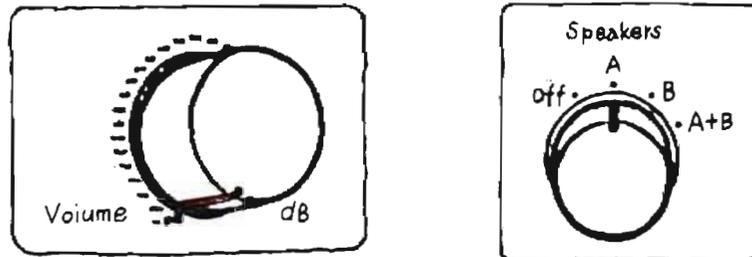
13 SUBSONIC FILTER Switch

Superlow-frequency noise, caused by warped or off-centered records, forces the moving structure of a woofer to work excessively; such abnormal excursion generates distortion. This filter cuts such superlow-frequency noise below 16 Hz and improves bass response.

14 LOUDNESS Switch

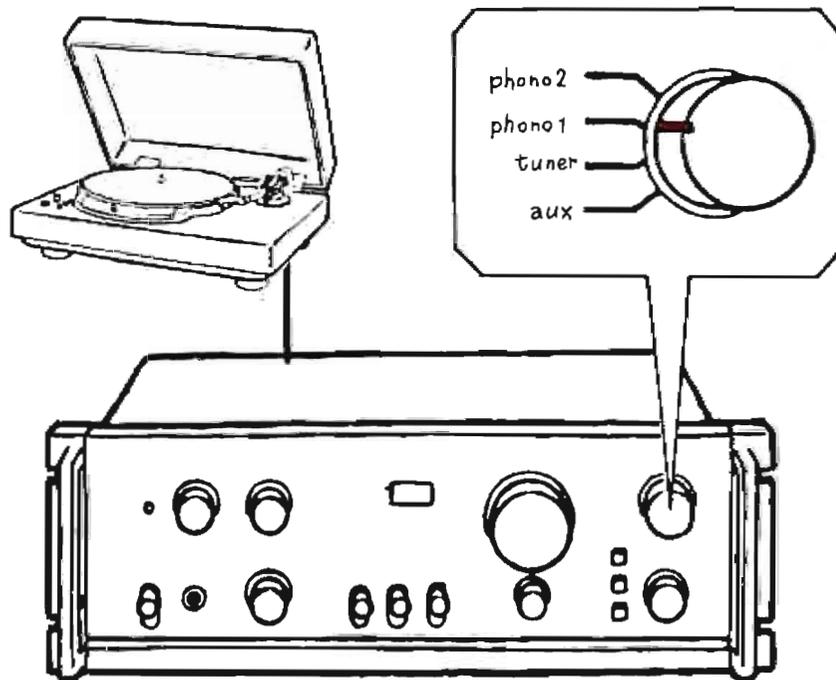
The human ear becomes insensitive to the lows and highs as sound volume is reduced. So you may feel a loss of highs and lows (especially lows) when listening at a low-volume level. The loudness circuit accents the highs and lows properly to render the reproduced sound more realistic. Setting the LOUDNESS switch to the ON position accents both the highs and lows.

OPERATING PROCEDURES



Notes prior to operation

1. Turn the VOLUME control fully to the left where " $-\infty$ " is indicated. Volume will then be minimum.
 2. Set the TAPE COPY switch to OFF and push the TAPE PLAY "SOURCE" button.
 3. Set the SPEAKERS switch to A, B or A + B position as appropriate.
 4. Set the BALANCE, BASS and TREBLE controls to their center positions.
 5. Set the FILTER and LOUDNESS switches to OFF.
 6. Turn the power on.
 - For several seconds after power-on, signals are not sent to speakers; do not mistake this phenomenon for a breakdown.
- For several seconds after the POWER switch is turned on, the Indicator will flash on and off and no sound will come out of your speaker systems. You'll hear sound when the unit becomes electrically stable and the Indicator stays lit.

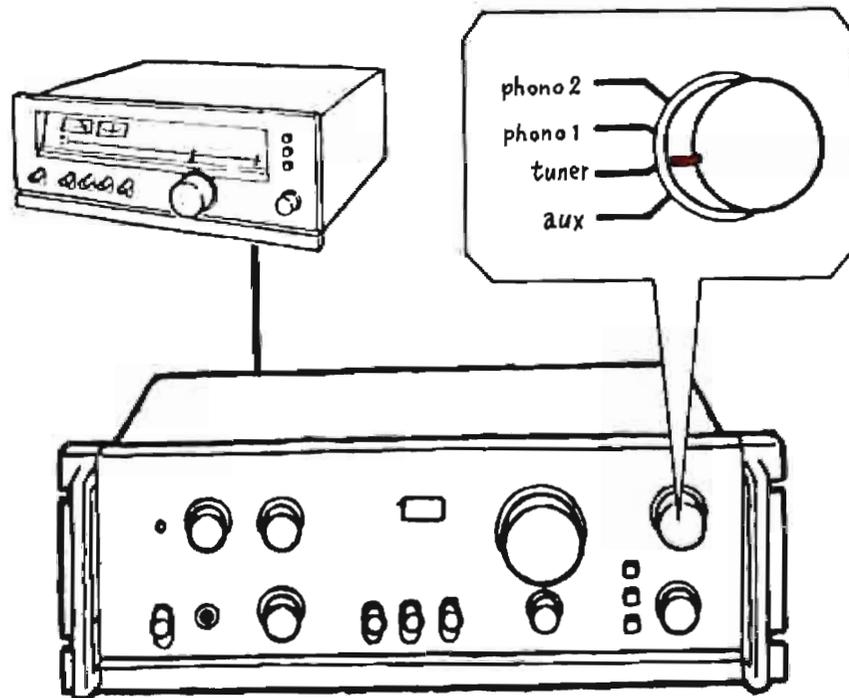


Listening to records

1. Confirm that the VOLUME control is not turned too far to the right; it should be at a position where you can obtain the normal listening level.
2. Turn the SELECTOR switch to PHONO-1 or -2, whichever is applicable for the turntable you wish to use.
3. Operate your turntable to play the records.
4. Adjust the unit's other controls and switches to suit the type of music you are going to hear.

Poor-quality record reproduction

- * When you hear hum continuously, check the grounding of your turntable.
- * You may hear howling or acoustic feedback, caused when the pickup of your turntable is affected by the vibrating sound waves from the speakers, and undesired signals are amplified. To avoid howling, move the turntable away from the speakers or install the turntable on a solid, non-resonating stand. It can also be reduced when the turntable is placed at one of the corners of your room.
- * When you hear the irritating noise during record playback, it is suggested that you check if there is dust accumulated on the surface of the record and on stylus tip. The cause may be a worn stylus tip. When you use a record cleaner, be sure to always use one of high quality.

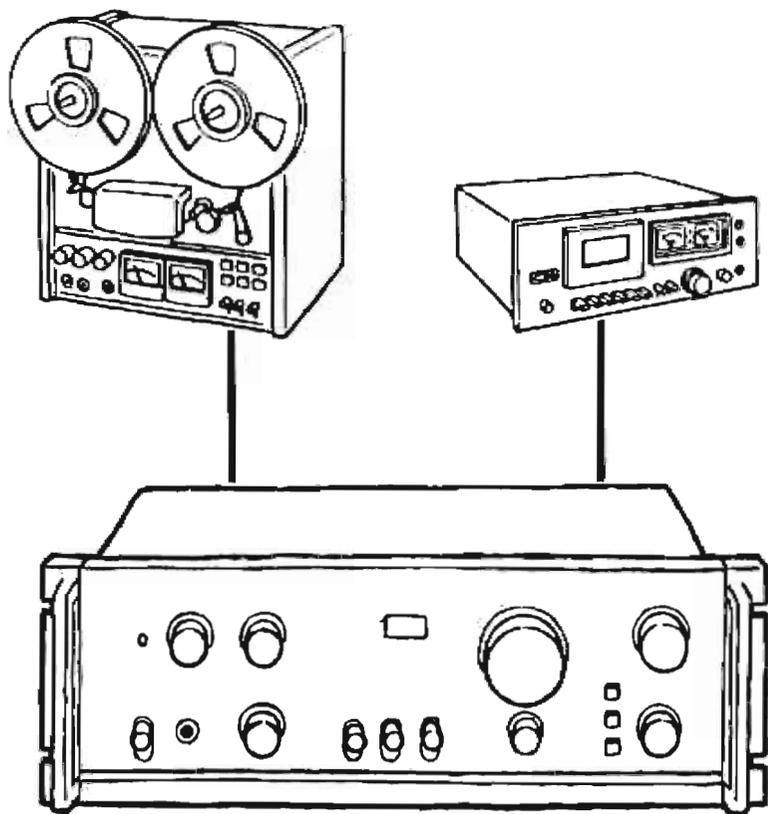


Listening to radio broadcasts

1. Confirm that the VOLUME control is not turned too far to the right; it should be at a position where you can obtain the normal listening level.
2. Set the SELECTOR switch to TUNER.
3. Adjust the Tuning control and tune in the desired station.
4. Adjust the unit's other controls and switches to suit the type of music you are going to hear.

Noise during radio reception

- * Weak FM signals are often disturbed by ignition noise from nearby automobiles and other noise. Therefore, for better FM reception, installation of an outdoor FM antenna is suggested. For antenna connection, be sure to use a coaxial cable, not a feeder-type cable.
- * When you hear noise during AM reception, there are innumerable conceivable causes, which makes it almost impossible to eliminate all AM noises. Use the unit's filters when grounding the unit or mounting a noise-eliminating device fails to reduce such noise.

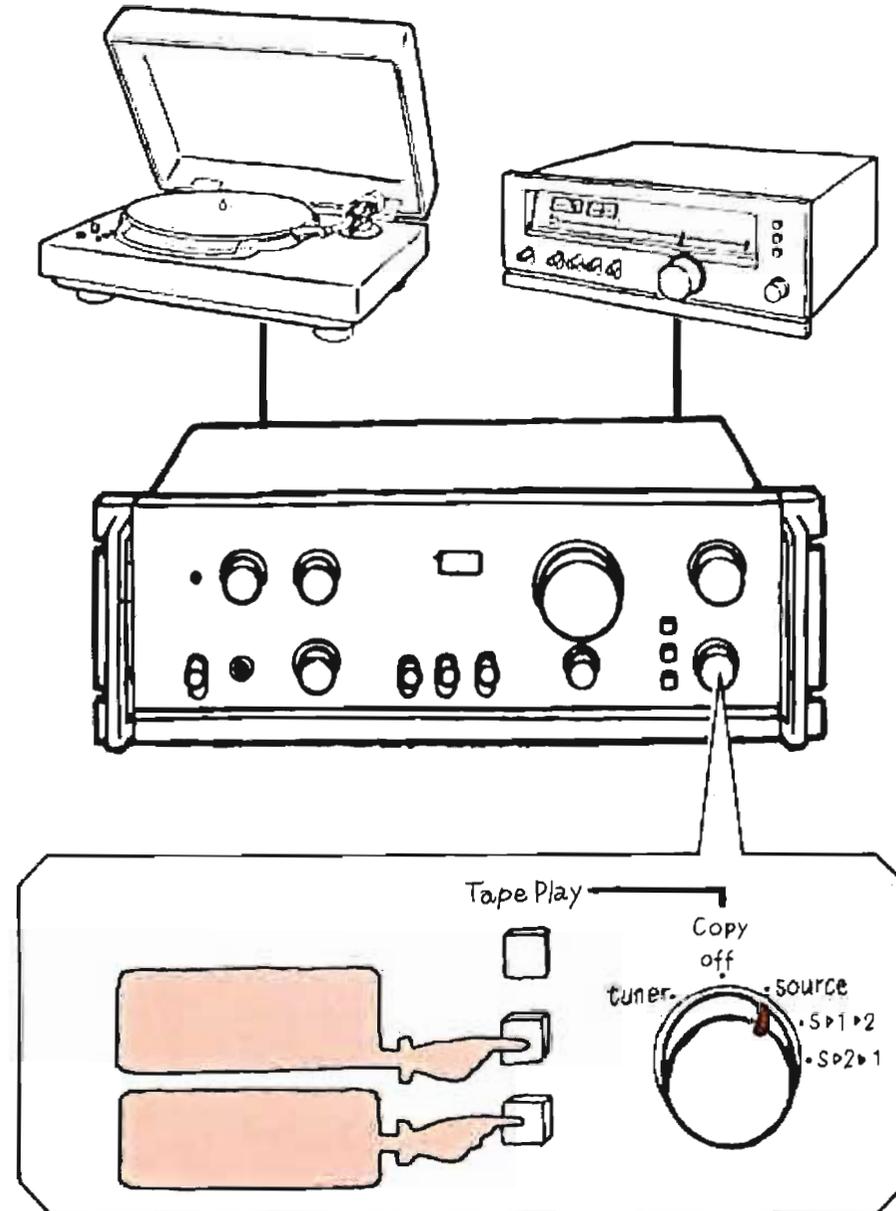


Playback of tapes

1. Confirm that the VOLUME control is not turned too far to the right; it should be at a position where you can obtain the normal listening level.
2. Push the TAPE MONITOR-1 or -2 switch, whichever is applicable for the tape deck you wish to use.
3. Operate the tape deck to start playback.
4. Adjust the unit's other controls and switches to suit the type of music you are going to hear.

Suggestions for high-quality tape playback

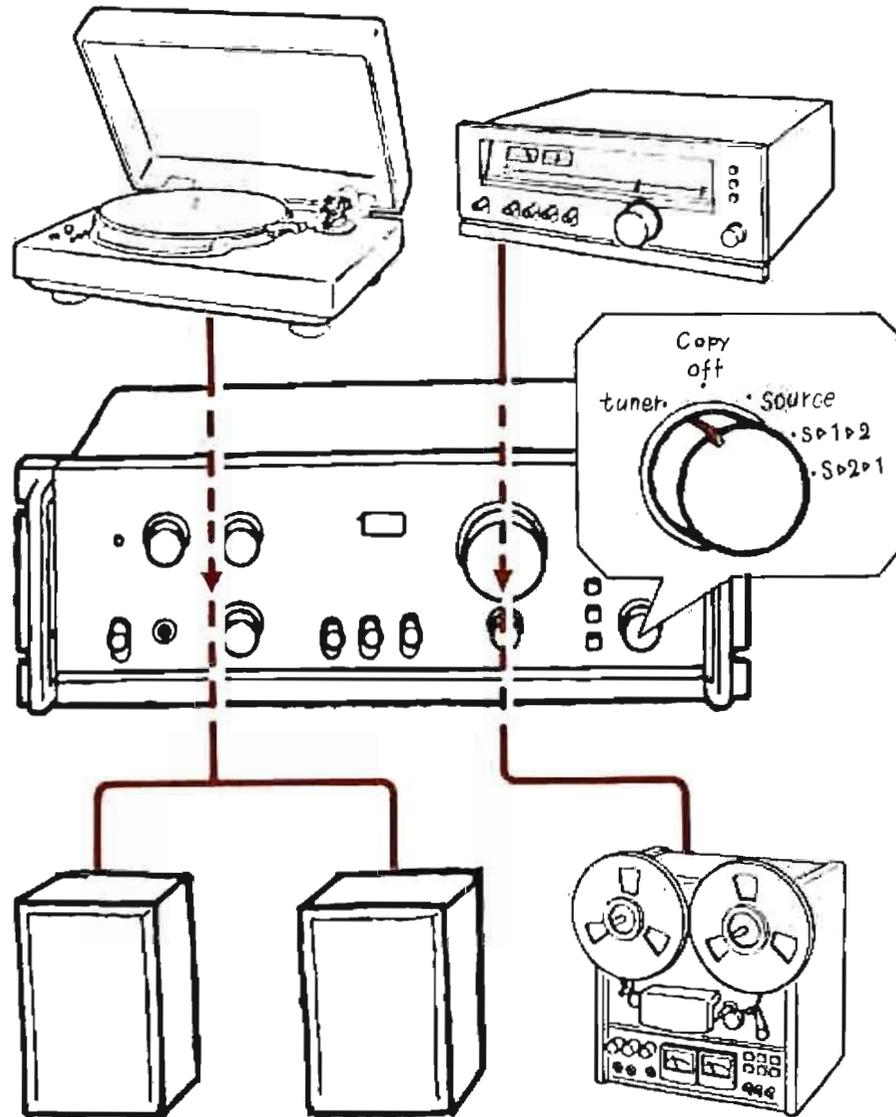
- Dirty heads in the tape deck deteriorate tonal quality and cause dropouts. Dirty capstans and pinch rollers increase wow and flutter.
- When a tape deck is used for a certain duration, heads can be magnetized and add, on playback, noise, bringing forth tonal degradation. Be sure to de-magnetize the heads from time to time on regular basis.
- Heads may be magnetized and information on tapes may be erased when subjected to magnets. Please take note.



Recording disc records and radio broadcasts

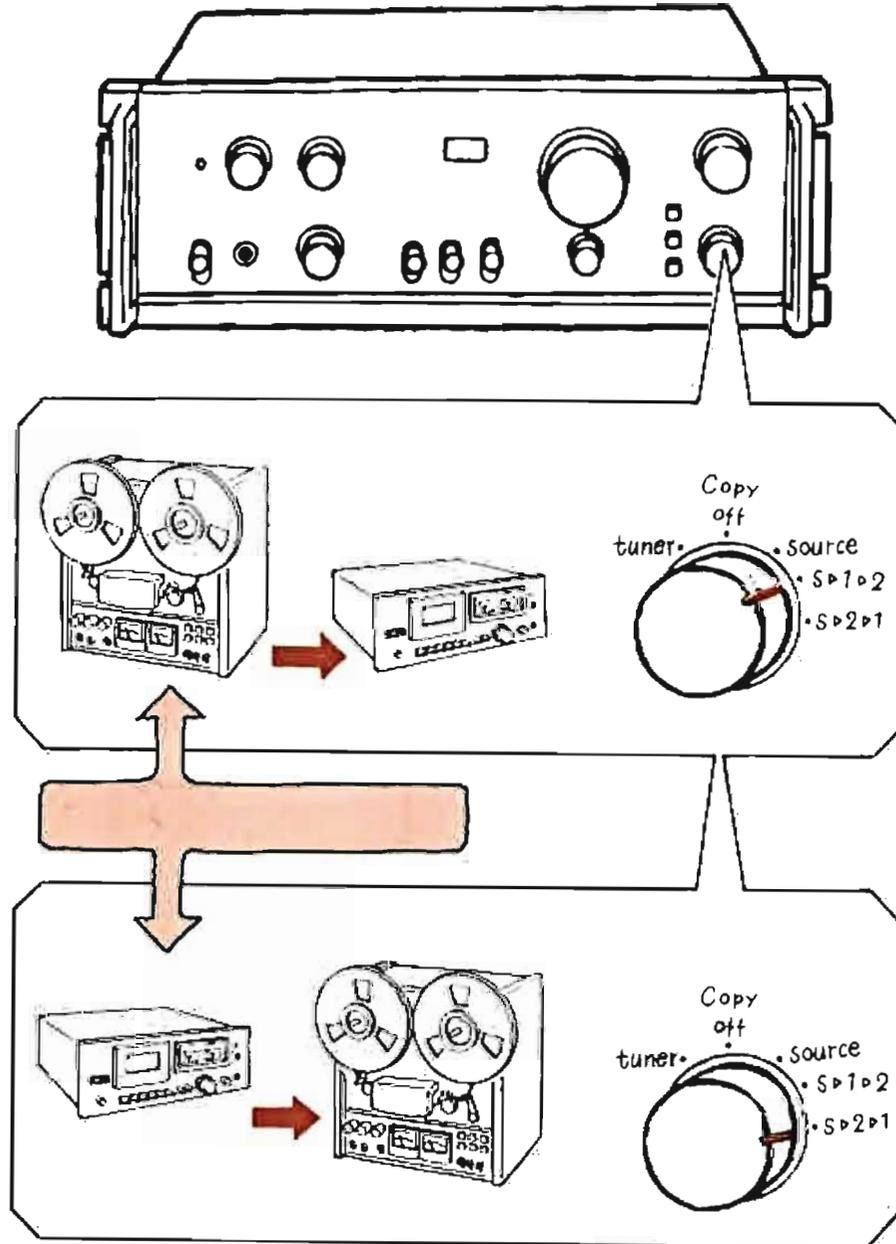
Recording can be made on tape decks connected to the TAPE REC terminals.

1. Set the INPUT SELECTOR switch to the program source you want to record.
2. Set the TAPE COPY switch to SOURCE position.
3. Operate the connected tape deck(s) and start recording.
4. When desiring to monitor the recording – instant monitoring – push the TAPE PLAY "TAPE-1" or "TAPE-2" button.
 - Monitoring, described in step 4 above, is possible only with those decks which have three separate heads for record, playback and erasure. It's not possible with those with two heads, one for record/playback and one for erase; push the TAPE PLAY "SOURCE" button and hear the signals that are to be recorded.
 - The recording you make should be enjoyed for your own pleasure; it is prohibited to exploit such recording for commercial profits if the material is copyrighted.
 - Whatever positions they are set at, the tone control and filter switches do not affect the quality of recorded signal.



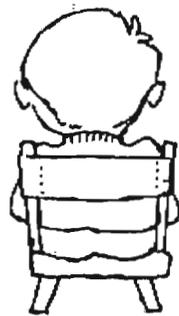
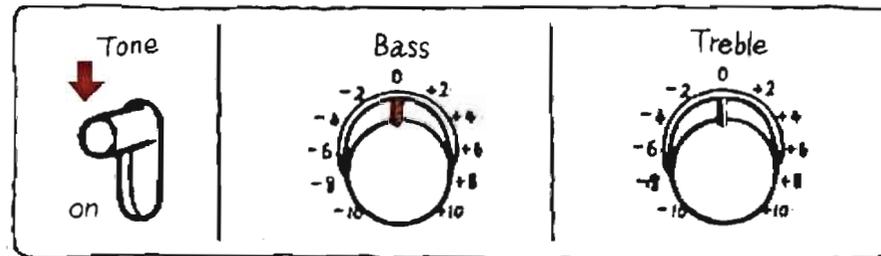
Recording radio broadcasts while listening to records

1. Set the INPUT SELECTOR switch to TUNER position, and the TAPE COPY switch to TUNER.
 2. Control the tuner and tune in the desired station.
 3. Operate the tape deck and start recording.
 4. Set the INPUT SELECTOR switch to PHONO-1 or PHONO-2 position.
 5. Operate the turntable and enjoy disc playback.
- When you want to check if the proper recording is under way, push the TAPE PLAY "TAPE-1" (or "TAPE-2") button; then the signals from the tuner are sent to the speakers through the deck.



Tape-to-tape copying (dubbing)

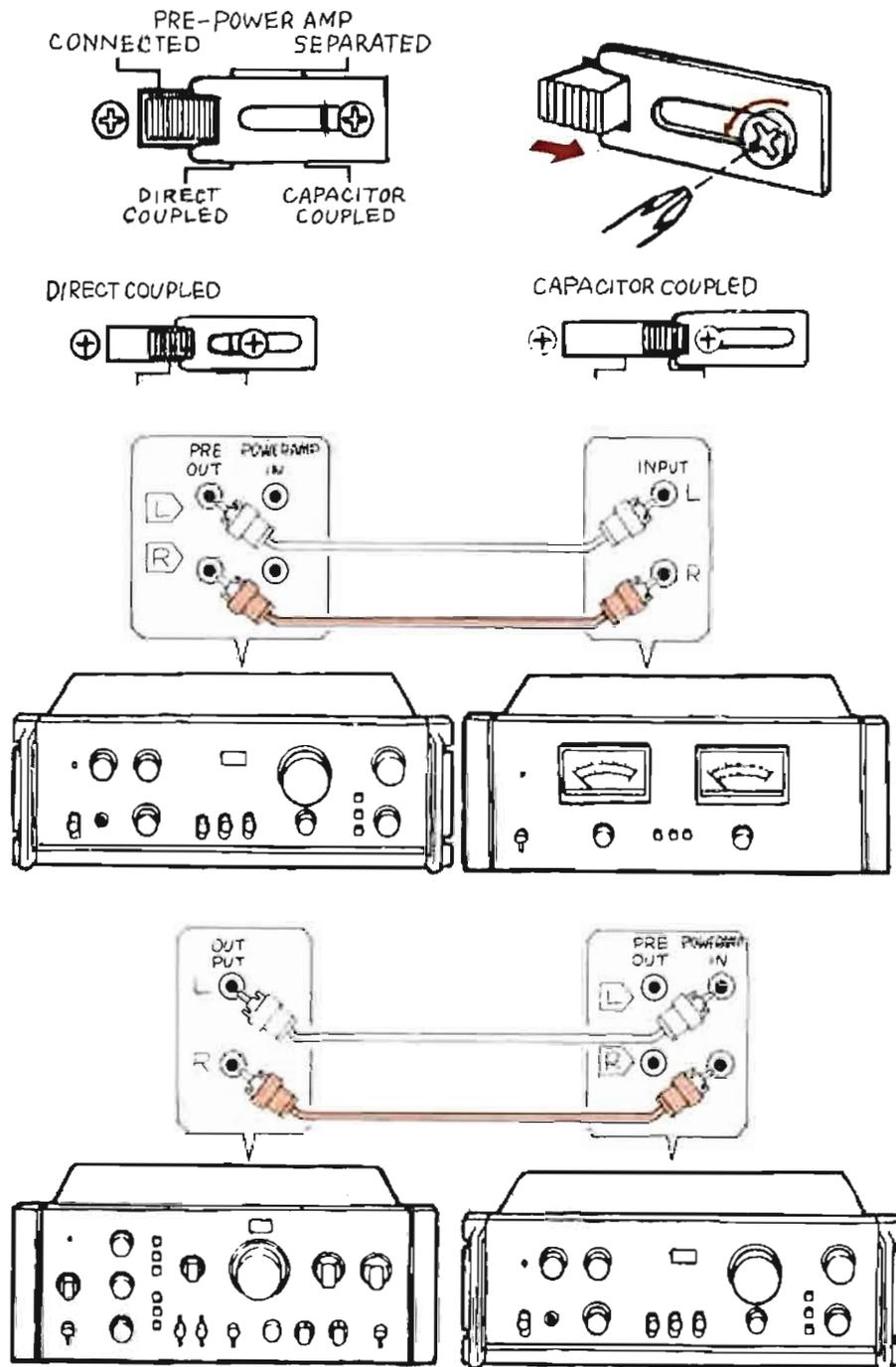
1. When copying from the TAPE-1 deck to the TAPE-2 deck, set the TAPE COPY switch to the "S ▶ 1 ▶ 2" position. When copying from the TAPE-2 deck to the TAPE-1 deck, set the TAPE COPY switch to the "S ▶ 2 ▶ 1" position. ("S" stands for "program source.")
 2. Operate the connected tape decks as needed for proper dubbing.
 3. To monitor the recording, push the TAPE PLAY "TAPE-1" or "TAPE-2" button as occasion demands.
- While dubbing is undertaken, you can hear the program source selected by the INPUT SELECTOR switch. When you want to hear records or broadcasts, push the TAPE PLAY "SOURCE" button.



Tone Control

A tone control system is to complement speaker and cartridge responses and compensate for peculiarities in program sources. It also helps you create your own tonal world. Set in the TONE switch and operate the BASS/TREBLE tone controls. They will offer you an almost infinite number of tonal shadings.

- To adjust tone with the tone controls, first set the TONE switch to the ON position. So long as the switch is in the DEFEAT position, the tone control system does not work; this position should be used only when you want a flat response.



SOME USEFUL HINTS

Separation of preamplifier and power amplifier

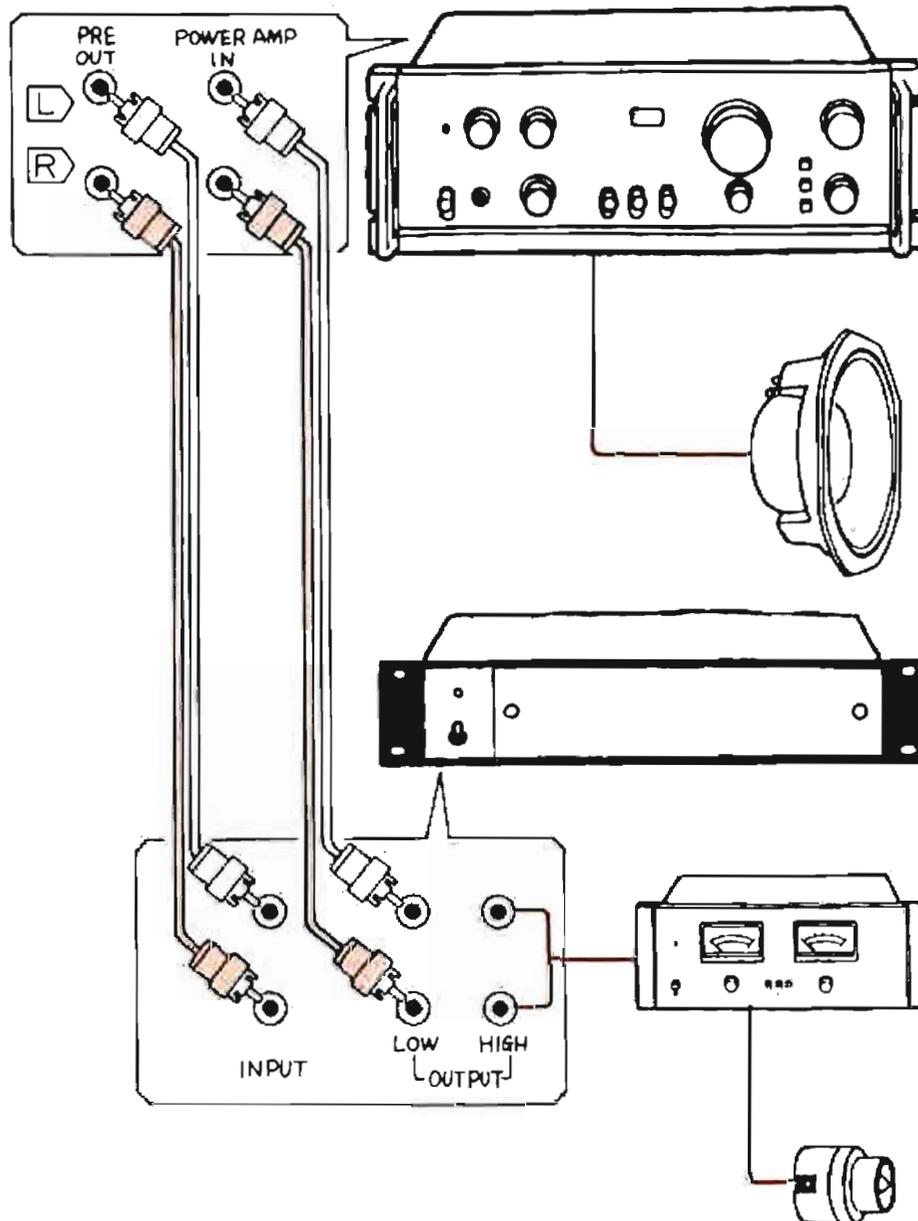
With the unit, it is possible to electrically separate its preamplifier section from its power amplifier section and use each section independently of the other. To separate these two sections, loosen the rear-panel screw (positioned below the "PRE-POWER AMP" inscription) and set the sliding switch to the SEPARATED position. (The SEPARATED position actually has two positions; more about it later.)

With the slider set to "SEPARATED," another preamplifier may be connected to the unit's power amplifier, or another power amplifier to the unit's preamplifier. Or it's also possible to build a multi-amp (electronic crossover) system. As noted earlier, the slider has two positions, "DIRECT COUPLED" and "CAPACITOR COUPLED," under its SEPARATED inscription:

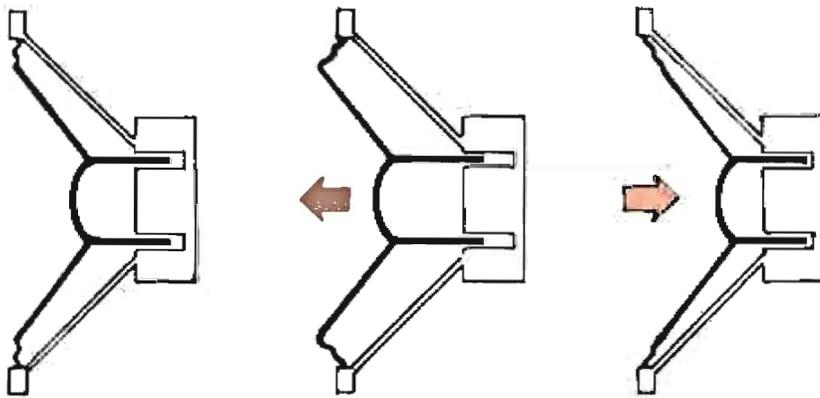
DIRECT COUPLED : The unit's power amplifier works as a "DC" amplifier; the amplification range starts with DC (direct current).

- When a DC component appears at the output of a connected equipment and therefore at the input of the unit's power amplifier, protection will be activated to protect connected speakers.

CAPACITOR COUPLED : A capacitor is connected at the input of the unit's power amplifier to eliminate DC components.



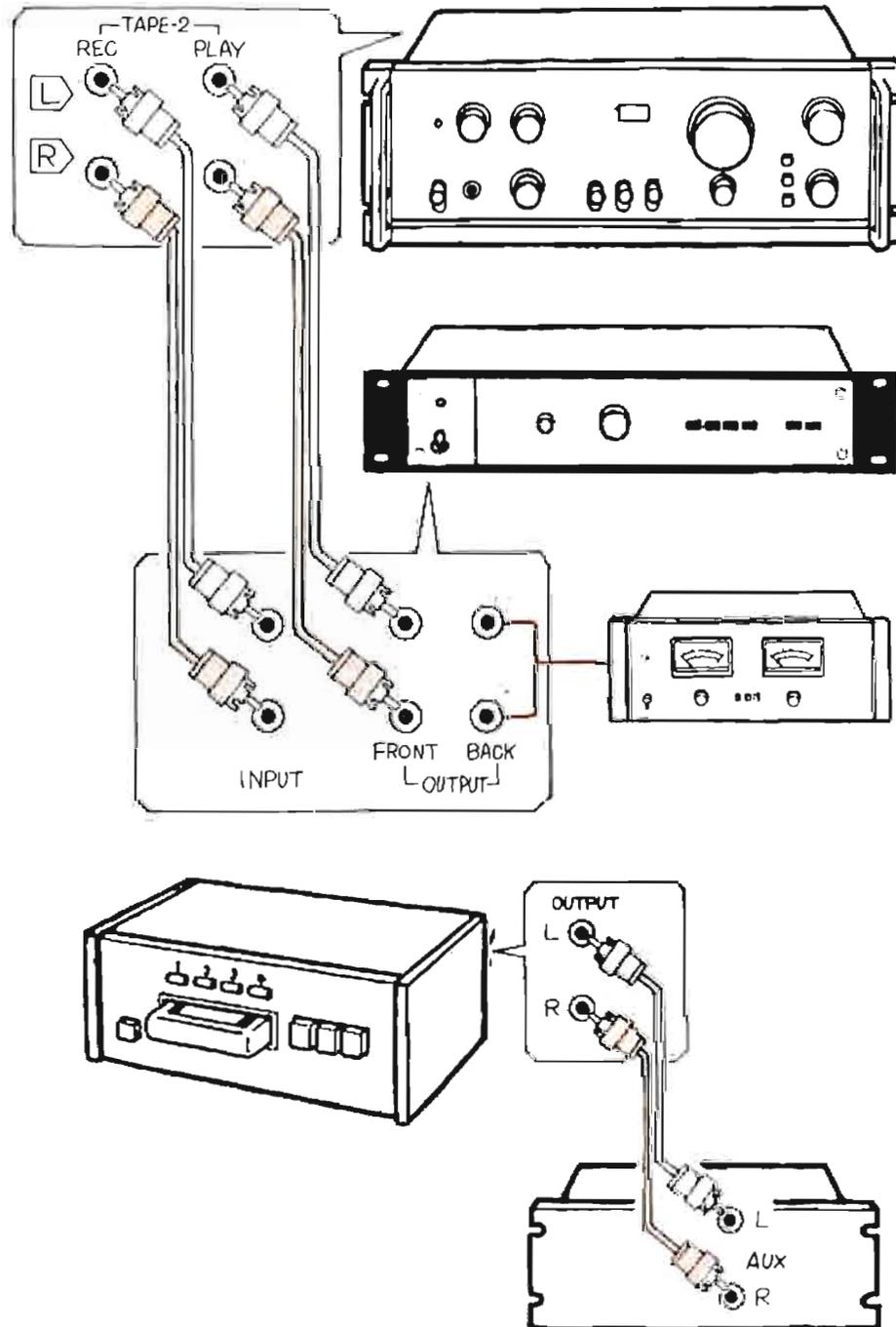
- The unit requires a little longer time (about 10 seconds) on power-on than most other amplifiers to stabilize its voltages in its circuits. When you use the unit's preamplifier with another power amplifier, first power on this unit and then the power amplifier after about a 10-second interval. When turning off both amplifiers, first power off the power amplifier and then the preamplifier.
- **When you use the unit's preamplifier only**, connect its PRE OUT terminals and a power amplifier's input terminals. Before you turn the POWER switch on or off, be sure to turn the VOLUME control completely counterclockwise (all the way to the $-\infty$ mark.)
- **When you use the unit's power (main) amplifier only**, connect its POWER AMP IN terminals with a control preamplifier's output terminals.
- **When you build a multi-amplifier system**, connect the unit's PRE OUT terminals and a channel divider's (electronic crossover) input terminals, and the unit's POWER AMP IN terminals and the channel divider's output terminals.



Unit's Power Amplifier

The unit's power amplifier is of the "DC" configuration with capacitors eliminated. Since capacitors are eliminated, phase distortion is reduced. Since a DC amplifier has a bandwidth from DC (direct current) to high frequencies, it features a wide bandwidth, low distortion and improved phase response.

- DC components, when applied at the input of a power amplifier, may break connected speakers or apply undue force to such speakers. To protect the speakers, therefore, a protector will be activated and speakers will emit no sound. When an equipment is connected to the unit's POWER AMP IN and the built-in protection is activated – meaning there are DC components at the equipment's output – slide the PRE-MAIN SEPARATED switch to CAPACITOR COUPLED.



4-channel system

For reproduction of QS⁺ and SQ⁺ 4-channel sources — records, tapes and radio broadcasts — the appropriate decoder is required and connection should be made as illustrated. For 4-channel reproduction in this arrangement, push the unit's TAPE PLAY "TAPE-2" button and the TAPE COPY switch to SOURCE position. The remaining operations are the same as those for stereo reproduction.

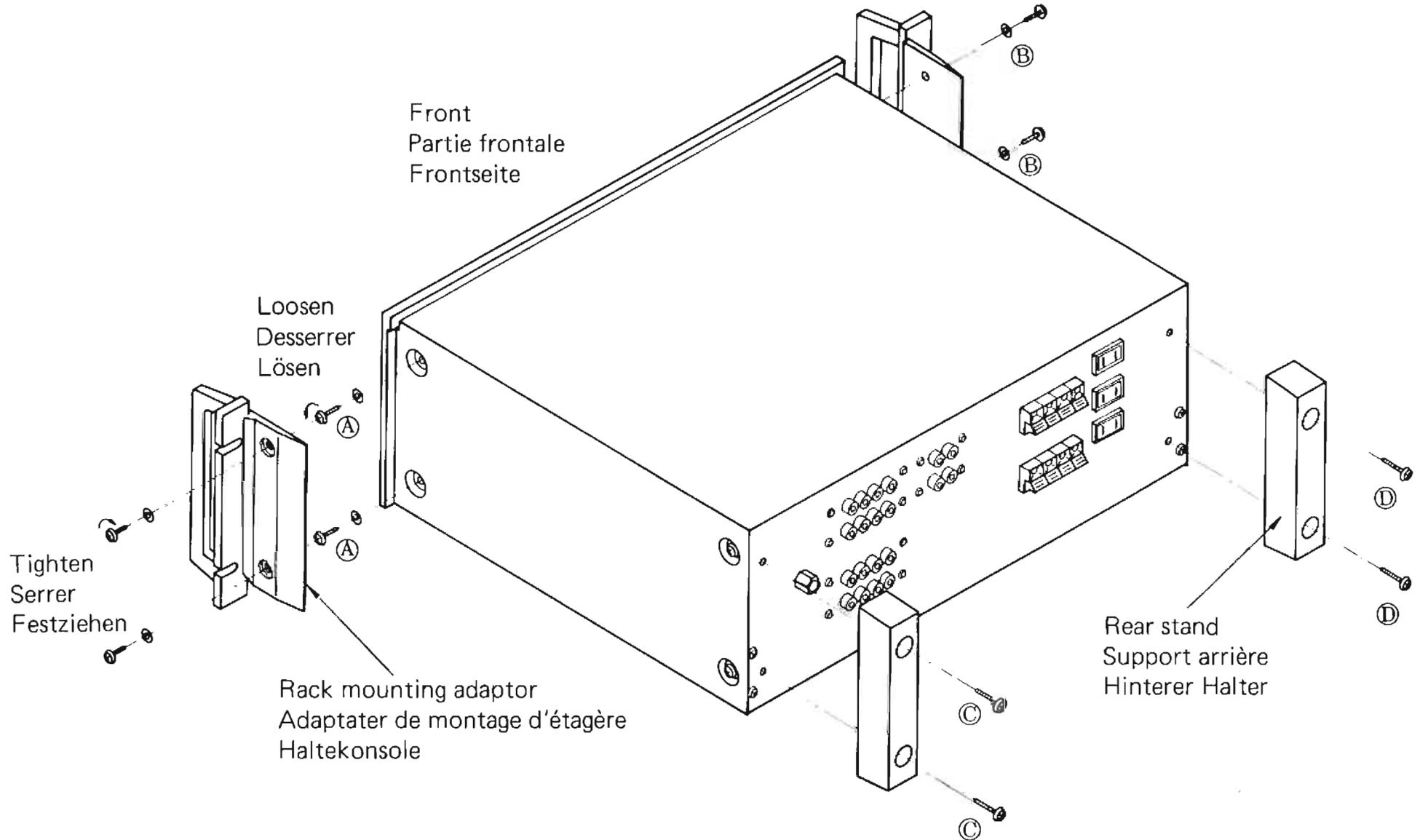
- A tape deck should be connected to the decoder's tape in/output terminals.
- † QS is a trademark of Sansui.
SQ is a trademark of CBS, Inc.

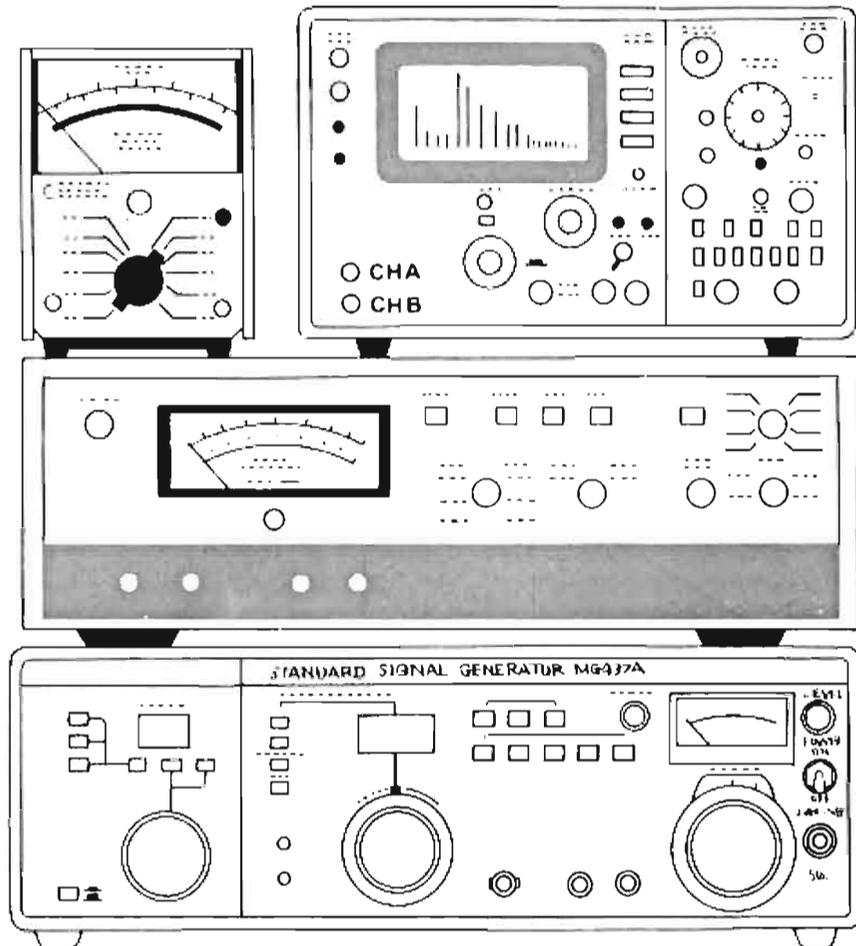
About rack mounting adaptors

Remarques concernant les adaptateurs de montage d'étagères

Zu den Haltekonsole für die Regalmontage

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SPECIFICATIONS

Power output

Min. RMS, both channels driven, from 10 to 20,000 Hz, with no more than 0.015% total harmonic distortion

65 watts per channel into 8 ohms

Load impedance 8 ohms

Total harmonic distortion (POWER AMP IN)

. less than 0.015% at or below rated min. RMS power output

Intermodulation distortion (70 Hz: 7 kHz = 4:1 SMPTE method)

. less than 0.01%

Rise time 1.4 μ sec/V

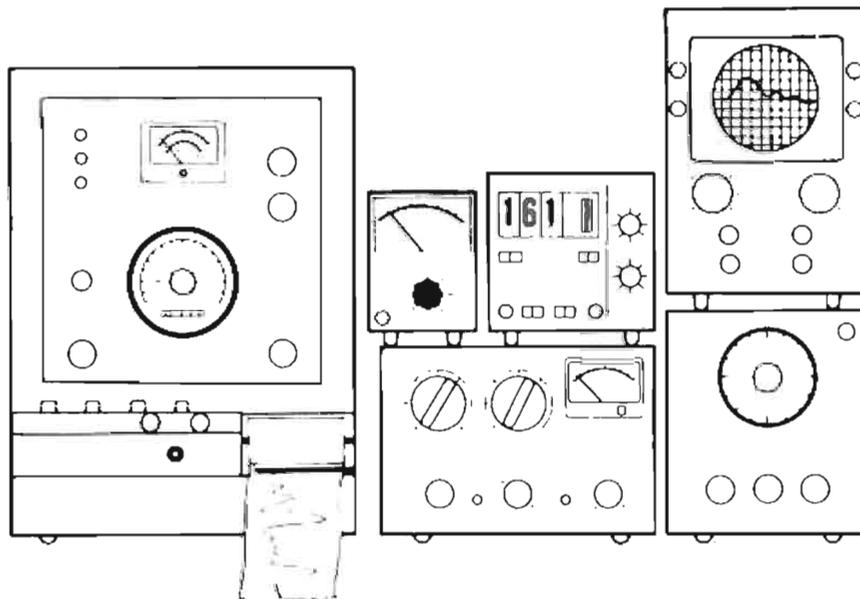
Slew rate 50V/ μ sec

Frequency response (at 1 watt) (POWER AMP IN)

. DC to 200,000 Hz +0 dB -3 dB

Damping factor approximately 60 at 8 ohms load

RIAA curve deviation (PHONO) +0.2 dB -0.2 dB (20 to 20,000 Hz)

**Input sensitivity and impedance** (1 kHz, for rated power output)

PHONO 2.5 mV/47 kilohms
 (Max. input capability; 320 mV at 1 kHz, less than 0.01% total harmonic distortion)

AUX, TUNER, TAPE PLAY 150 mV/47 kilohms

Output level and impedance (1,000 Hz)

TAPE REC (pin jack) 150 mV into 47 kilohms/
 600 ohms

PRE OUT 1 V into 47 kilohms/75 ohms

Channel separation (1 kHz, at rated power output)

PHONO 60 dB

AUX, TUNER, TAPE PLAY 65 dB

Hum and noise (short-circuit, A-network)

PHONO 80 dB

AUX, TUNER, TAPE PLAY 100 dB

Controls

BASS ± 10 dB (50 Hz)

TREBLE ± 10 dB (15 kHz)

SUBSONIC FILTER -3 dB (16 Hz), 6 dB/oct

LOUDNESS (-30 dB) 9 dB at 50 Hz

7 dB at 10 kHz

Power requirements

Power voltage 100, 120, 220, 240V (50/60Hz)
 120V 60 Hz
 (for U.S.A. & Canada only)

Power consumption

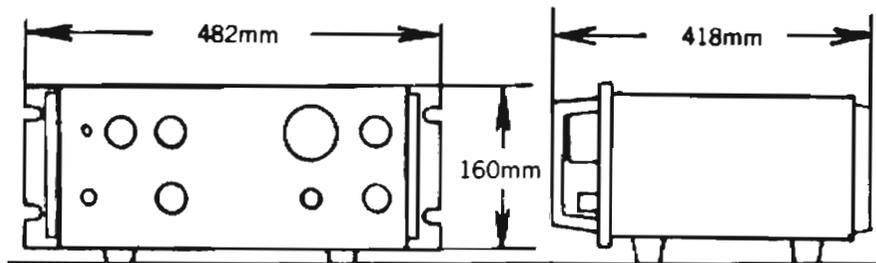
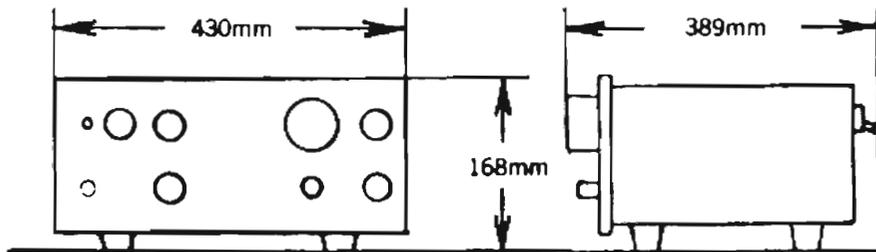
Maximum consumption 660 watts
 Rated consumption 345 watts 420 VA

Dimensions

. 430 mm (16-15/16") W
 168 mm (6-5/8") H
 389 mm (15-3/8") D

Weight

. 16.5 kg (36.4 lbs) net
 18.5 kg (40.8 lbs) packed



* Design and specifications subject to changes without notice for improvements.
 * In order to simplify the explanation illustrations may sometimes differ from the originals.



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