

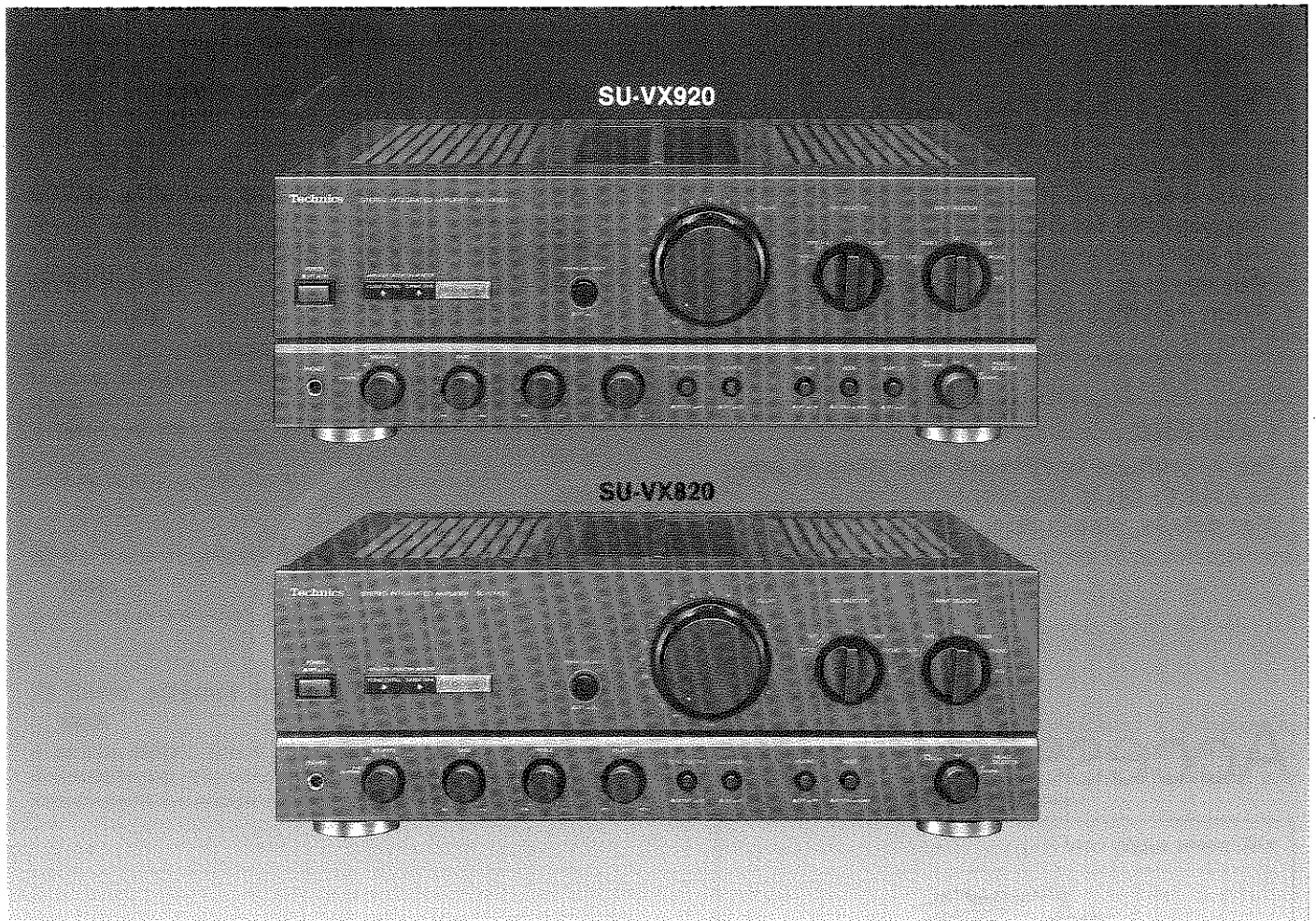
Technics

STEREO INTEGRATED AMPLIFIER

SU-VX920

SU-VX820

Operating Instructions



Notes:

- Specifications differ according to the area code.
- The "EB" area code, for example, indicates United Kingdom specifications.
- The "EB" indication is shown on the packing case and serial number tag.

Before operating this unit, please read these instructions completely.

Dear Stereo Fan

We want to thank you for selecting this product and to welcome you to the growing family of satisfied Technics product owners around the world. We feel certain you will get maximum enjoyment

from this new addition to your home. Please read these operating instructions carefully, and be sure to keep them handy for convenient reference.

These operating instructions are applicable to models SU-VX920 and SU-VX820. These operating instructions, however, fundamentally explain the operation of model SU-VX920.

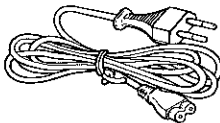
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CAUTION:
The AC voltage is different according to area.
Be sure to set to the proper voltage in your area before use.
(For details, please refer to page 6.)

Accessory

• AC power supply cord 1



The configuration of the AC power supply cord differs according to area.

Suggestions for Safety

■ Use a standard AC wall outlet

1. **Use of an AC power source of high voltage, such as for an air conditioner, is very dangerous.**

There is the possibility that a fire might be caused by making such a connection.

2. **A DC power source cannot be used.**

Be sure to check the power source carefully, especially on a ship or other place where DC is used.

■ Grasp the plug when disconnecting the power supply cord

1. **Wet hands are dangerous.**

A dangerous electric shock may result if the plug is touched by wet hands.

2. **Never place heavy items on top of the power supply cord, and never force it to bend sharply.**

■ Place the unit where it will be well ventilated

Place this unit at least 10 cm (4") away from wall surfaces, etc. Be careful that curtains and similar materials do not obstruct the ventilation holes.

■ Avoid places such as the following:

in direct sunlight or in other places where the temperature is high.

In places where there is excessive vibration or humidity.

Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.

■ Be sure to place the unit on a flat, level surface.

If the surface is inclined, a malfunction may result.

■ Never attempt to repair or reconstruct this unit

A serious electric shock might occur if this unit is repaired, disassembled or reconstructed by unauthorized persons, or if the internal parts are accidentally touched.

■ Take particular care if children are present

Never permit children to put anything, especially metal, inside this unit. A serious electric shock or malfunction could occur if articles such as coins, needles, screwdrivers, etc. are inserted through the ventilation holes, etc. of this unit.

■ If water is spilled on the unit

Be extremely careful if water is spilled on the unit, because a fire or serious electric shock might occur. Immediately disconnect the power cord plug, and consult with your dealer.

■ Avoid spray-type insecticides

Insecticides might cause cracks or "cloudiness" in the cabinet and plastic parts of this unit. The gas used in such sprays might, moreover, be ignited suddenly.

■ Never use alcohol or paint thinner

These and similar chemicals should never be used, because they might cause flaking or cloudiness of the cabinet finish.

■ Disconnect the power supply cord if the unit will not be used for a long time

If the unit is left for a long time with the power ON, this will not only shorten its useful operation life, but may also cause other troubles.

■ If trouble occurs

If, during operation, the sound is interrupted or indicators no longer illuminate, or if abnormal odor or smoke is detected, immediately disconnect the power cord plug, and contact your dealer or an Authorized Service Center.

For United Kingdom

("EB" area code model only)

The "EB" indication is shown on the serial number tag.

Important

THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL

BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

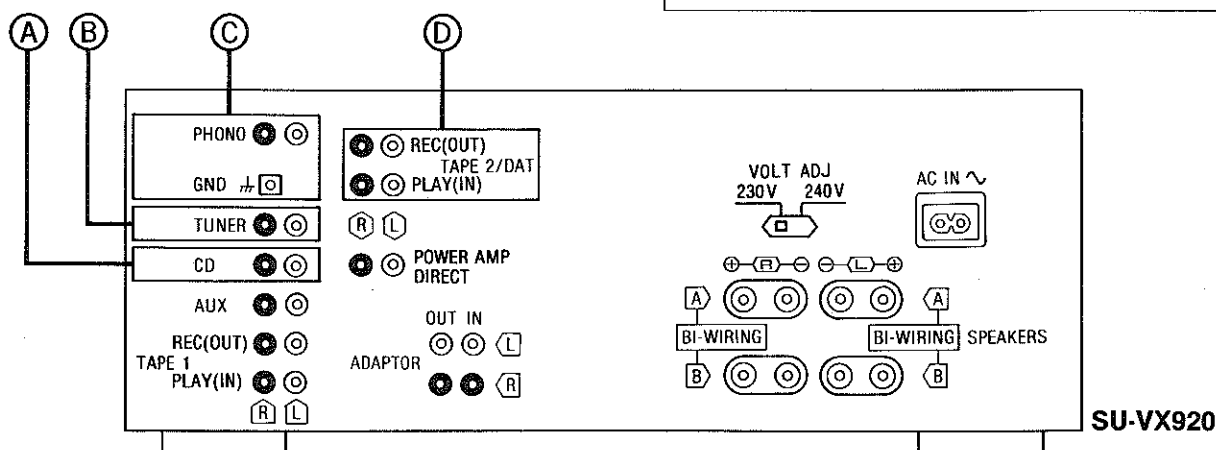
Connections

To connect to each terminals

Make connections to each component in the system by using stereo connection cables (not included).

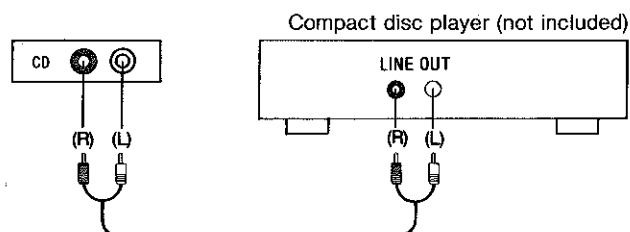
Stereo connection cable

White (L) 
Red (R) 



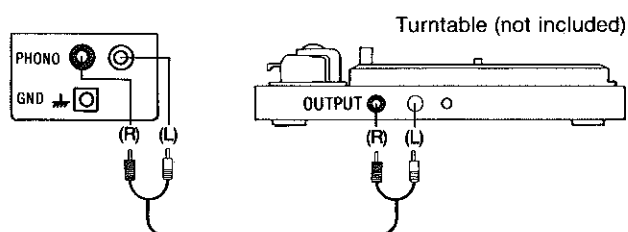
(A) "CD" terminals

Connect to a compact disc player.



(C) "PHONO" terminals

Connect to a turntable.

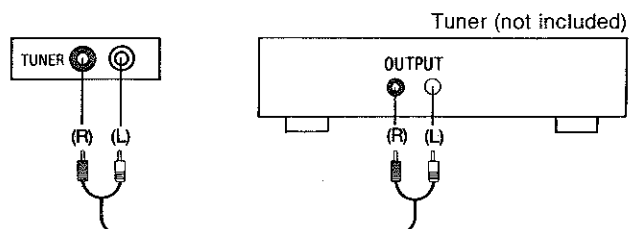


■ "GND" terminal

This terminal is for use with a turntable which has a ground wire.

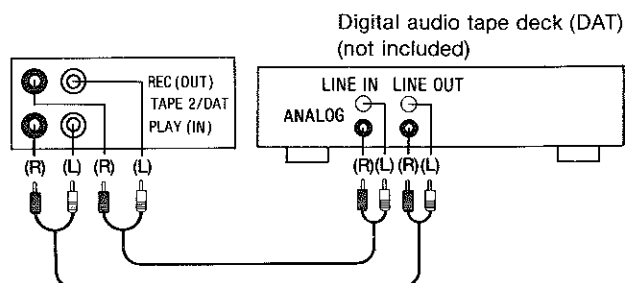
(B) "TUNER" terminals

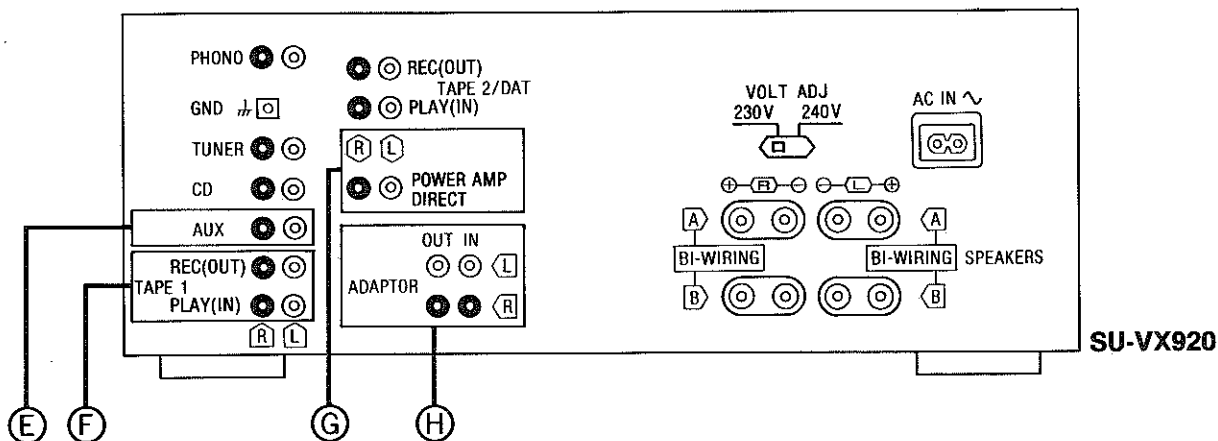
Connect to a tuner.



(D) "TAPE 2/DAT" terminals

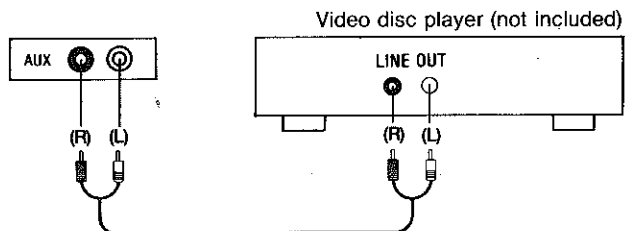
Connect to a second tape deck or a digital audio tape deck (DAT).





E "AUX" terminals

Connect to a component such as a video disc player (audio only connectable), etc.

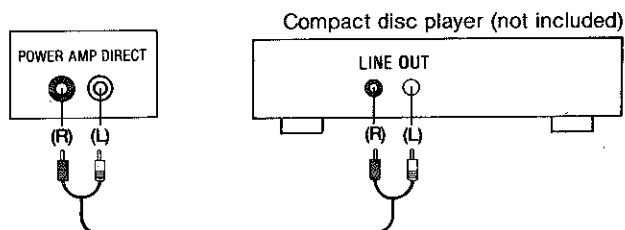


G "POWER AMP DIRECT" terminals

Connect to a compact disc player, a digital audio tape deck, or a D/A converter.

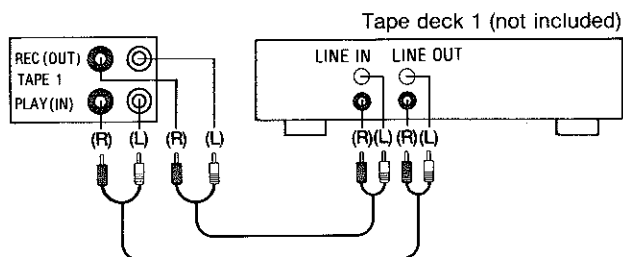
A superior level of tone quality can be obtained, because the signals from these terminals are sent directly to the volume control and power amplifier section of this unit.

The sounds from a component connected to these terminals cannot be recorded.



F "TAPE 1" terminals

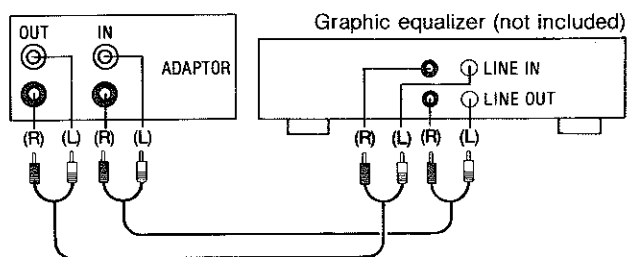
Connect to a first tape deck.



H "ADAPTOR" terminals

For SU-VX920 only

Connect to a graphic equalizer.

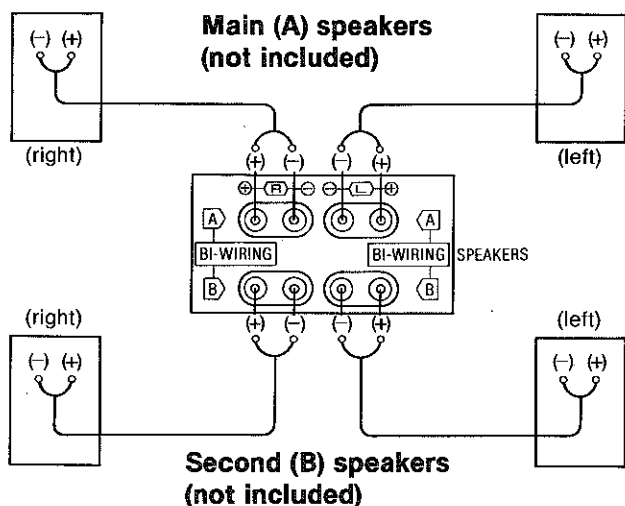


Connections (continued)

To connect to speakers

One pair of speakers can be connected to the "A" terminals of this unit and one pair to the "B" terminals, or only one pair of bi-wired speakers can be connected to all terminals.

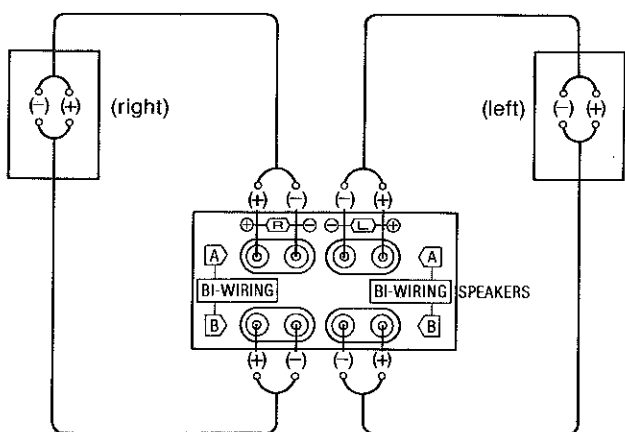
To connect main and/or second speakers



■ Load impedance

- When only the "A" or only the "B" terminals are used: 4–16 ohms
- When both the "A" and the "B" terminals are used simultaneously: 8–16 ohms

To connect bi-wired speakers



Note: Connect only bi-wired speakers in this way.

■ Load impedance

When bi-wired speakers are used: 4–16 ohms

■ Bi-wiring

The treble range and the bass range of the speakers are connected to the speaker terminals of the amplifier by using two speaker connection cords separately for each.

As a result of making connections in this way, sound can be reproduced with much greater nuance and detail, with the feelings of air oscillation and deepness of sound provided by an input source that suppresses reciprocal band-range interference.

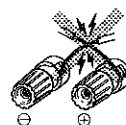
(Refer to the operating instructions of the speakers.)

To connect cords to terminals

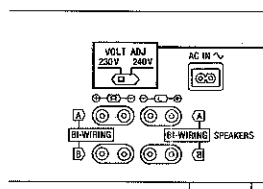
- ① Strip off the outer covering, and twist the center conductor. 10 mm Twist
- ② Turn completely to the left.
- ③ Insert the wire and turn completely to the right. Pull the cord to assure a proper connection.

Note: Be sure to only connect positive (+) cords to positive (+) terminals, and negative (–) cords to negative (–) terminals.

Note: To prevent damage to circuitry, never short-circuit the plus (+) and minus (–) speaker wires.



To set the power voltage



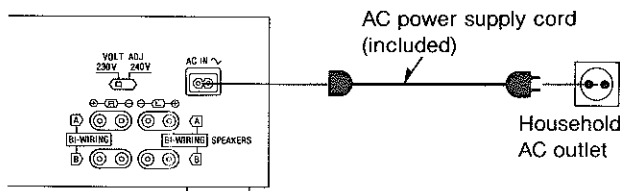
Set the voltage selector to the voltage setting for the area in which the unit will be used. [Use a minus (–) screwdriver]

Note:

Note that this unit will be seriously damaged if this setting is not made correctly.

To connect the AC power supply cord (included)

Connect the AC power supply cord (included) after all other cables and cords are connected.



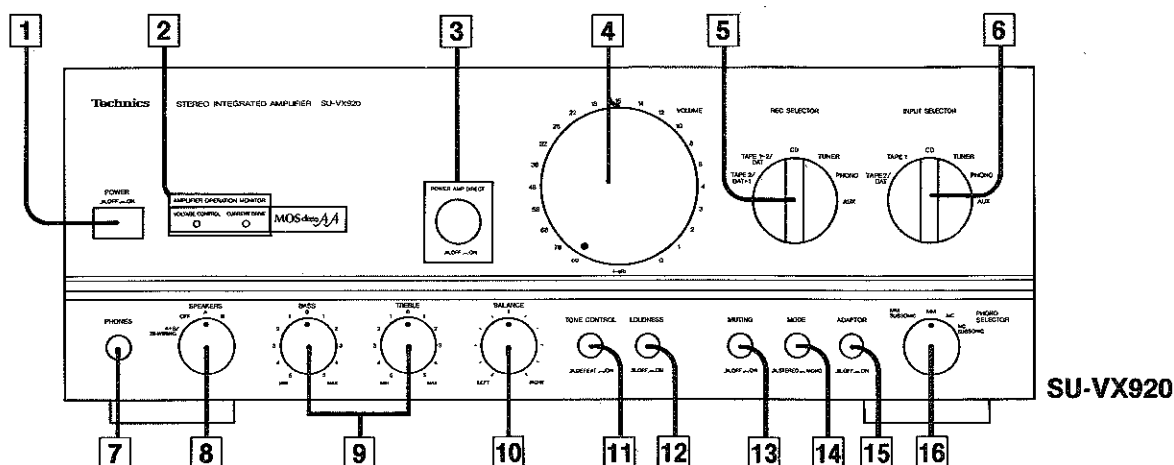
Note:

The configuration of the AC power supply cord differs according to area.

For United Kingdom

Household AC outlet
Fit a suitable plug to the AC power supply cord.

Front Panel Controls and Functions



1 Power switch (POWER)

2 Operation indicators (AMPLIFIER OPERATION MONITOR)

These indicators illuminate to indicate the operating condition of this unit.

VOLTAGE CONTROL:

When the power is switched ON, this indicator illuminates when the unit is in the operating condition.

CURRENT DRIVE:

When the power is switched ON, this indicator illuminates after about 4 seconds when the unit is in the operating condition.

If an abnormal condition in the circuitry is detected, such as DC voltage appearing in the output, or a short-circuit of the positive (+) and negative (-) wires from the speaker terminals, the protection circuit functions and this indicator will not illuminate.

3 Power amplifier direct switch (POWER AMP DIRECT)

This switch is used to listen to the sound from a component connected to the "POWER AMP DIRECT" terminals.

When this switch is pressed inward to the "ON" position, a superior level of tone quality can be obtained, because the signals from the component connected to the "POWER AMP DIRECT" terminals are sent directly to the volume control and power amplifier section of this unit. The tone control circuit, balance control, loudness switch, muting switch and mode selector are bypassed.

4 Volume control/indicator (VOLUME)

There are two types of volume scale indications: one for when or the power amplifier direct switch is OFF, and one for when it is ON (Indicator will illuminate.).

5 Recording selector (REC SELECTOR)

This selector is used to select the sound source to be recorded by the connected tape deck 1 and/or tape deck 2 (or DAT).

6 Input selector (INPUT SELECTOR)

This selector is used to select the sound source to be heard, such as a disc, radio broadcast, etc.

7 Headphones jack (PHONES)

8 Speaker selector (SPEAKERS)

This selector is used to select the speakers to be used.

9 Tone controls (BASS/TREBLE)

The bass control is used to adjust the low-frequency sound range, and the treble control is used to adjust the high-frequency sound range.

10 Balance control (BALANCE)

This control is used to adjust the left/right volume balance.

11 Tone control switch (TONE CONTROL)

This switch is used to set the tone control circuit (bass, treble) to ON or DEFEAT.

12 Loudness switch (LOUDNESS)

This switch is used when listening to music at a low volume level. Auditory perception of sound in the low frequency range falls off at low volume, but when the switch is set to the "ON" position, this deficiency is compensated for, so that the full impact of the musical performance can be enjoyed.

13 Muting switch (MUTING)

This switch is used to temporarily reduce the volume level (approx. 1/10).

The effect activates when setting this switch to the "ON" position.

14 Mode selector (MODE)

This selector is used to select stereo or monaural operation.

15 Adaptor switch (ADAPTOR)

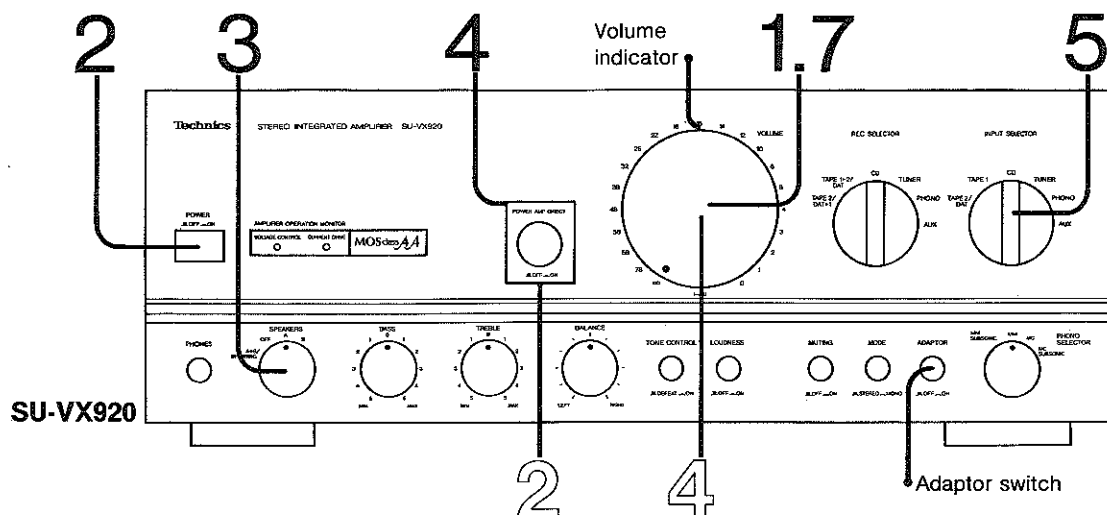
For SU-VX920 only

This switch is used when enjoying music by changing the sound quality with the graphic equalizer, etc.

16 Phono cartridge selector (PHONO SELECTOR)

This selector should be set to the position which corresponds to the type of cartridge used on the turntable. The "SUBSONIC" position is used to eliminate ultra-low-frequency noise such as motor "rumble" and unusual vibration of the woofer cone caused by a warped disc, etc.

Listening to Sound



Listening to phono disc or tapes, etc.

1 Set the volume control to the "∞" position.

2 Switch ON the power.

3 Select the speakers (A, B or A+B/ BI-WIRING) to be used.

OFF: No sound will be heard from the speakers.

A: Sound can be heard from the speakers connected to the "A" terminals.

B: Sound can be heard from the speakers connected to the "B" terminals.

A+B/BI-WIRING: Sound can be heard simultaneously from the speakers connected to the "A" terminals and the "B" terminals. Or, if bi-wired speakers are connected, sound can be heard from them.

4 Set the power amplifier direct switch to the "OFF" position.

(The volume indicator will switch OFF.)

Set the adaptor switch to the "OFF" position when nothing is connected to the "ADAPTOR" terminals.

5 Select the sound source.

TAPE 2/DAT: Set to this position to listen to equipment connected to the "TAPE 2/DAT" terminals.

TAPE 1: Set to this position to listen to tapes.

CD: Set to this position to listen to compact discs.

TUNER: Set to this position to listen to radio broadcasts.

PHONO: Set to this position to listen to phono discs.

Then, set the phono cartridge selector to the position which corresponds to the type of cartridge used on the turntable. (Refer to "PHONO SELECTOR" on page 9.)

AUX: Set to this position to listen to equipment connected to the "AUX" terminals.

6 Begin operation of the components to be used.

Refer to the operating instructions of each component.

7 Adjust the volume level.

Adjust the tone quality, etc. (Refer to page 9.)

Listening to a component connected to the "POWER AMP DIRECT" terminals

1 Follow steps 1–3 described at left.

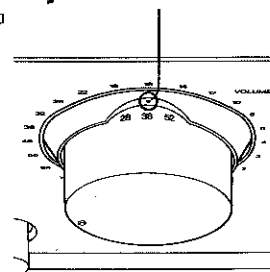
2 Set the power amplifier direct switch to the "ON" position.

(The volume indicator will illuminate.)

3 Begin operation of the components to be used.

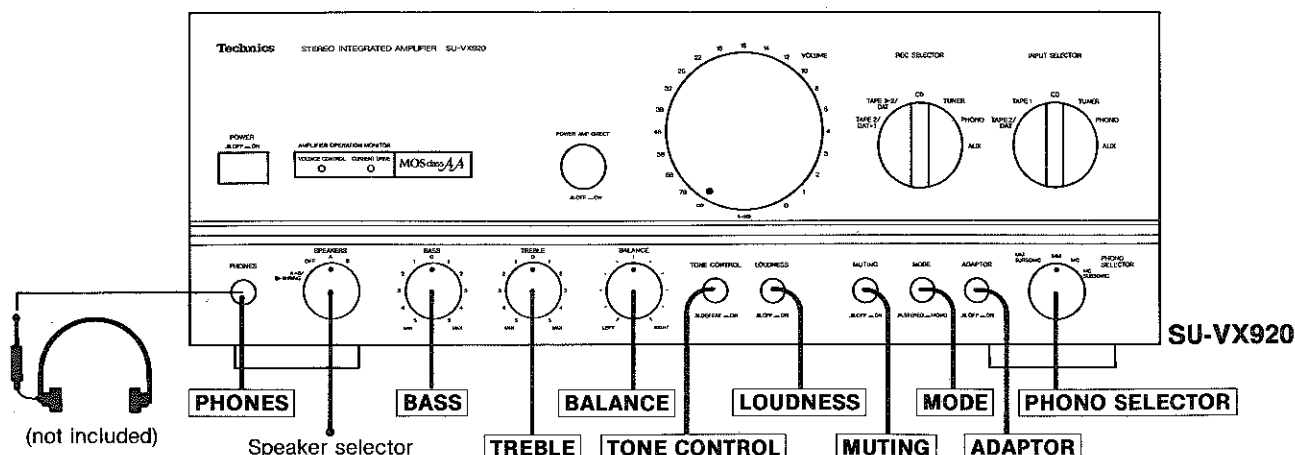
Refer to the operating instructions of each component.

4 Adjust the volume level using this scale.



Note:

The tone quality, the mode, the loudness, the balance, the muting, and the adaptor (for SU-VX920 only) cannot be adjusted.



While listening to music

TONE CONTROL

Press the tone control switch inward to the "ON" position if you want to adjust the bass or treble tone quality.

If set to the "DEFEAT" position, tone controls have no effect, and frequency response becomes flat.

BASS

Adjust the low-frequency sound to the desired tone quality.

TREBLE

Adjust the high-frequency sound to the desired tone quality.

BALANCE

Adjust the balance for the left/right volume.

LOUDNESS

When listening to music at a low volume level, press the loudness switch inward to the "ON" position for compensation of the bass range.

MUTING

Press the muting switch inward to the "ON" position to temporarily reduce the volume level.

This is convenient to use if a visitor comes or the telephone rings. Set the switch to the "OFF" position to return to the previous volume level.

MODE

Select the stereo or monaural operation.

STEREO (→): Set to this position to listen in stereo.

MONO (→): Set to this position to listen monaurally.

The left and right sounds will be mixed, and the same sounds will be heard from both speakers.

ADAPTOR

For SU-VX920 only

Press the adaptor switch inward to the "ON" position when changing the sound quality with the graphic equalizer, etc.

PHONO SELECTOR

Select the cartridge type when listening to phono discs.

MM:

Set to this position when using a moving-magnet type cartridge or high-output moving-coil cartridge (1 mV or more).

MC:

Set to this position when using a moving-coil type cartridge.

MM SUBSONIC/MC SUBSONIC:

Set to these positions corresponding to the type of cartridge when eliminating ultra-low-frequency noise.

While listening through headphones

PHONES

Connect the headphones to the headphones jack after reducing the volume level.

- If the sound from the speakers is not wanted, set the speaker selector to the "OFF" position.
- Avoid listening for a long time at a volume level so high that it irritates the ears.

After listening is finished

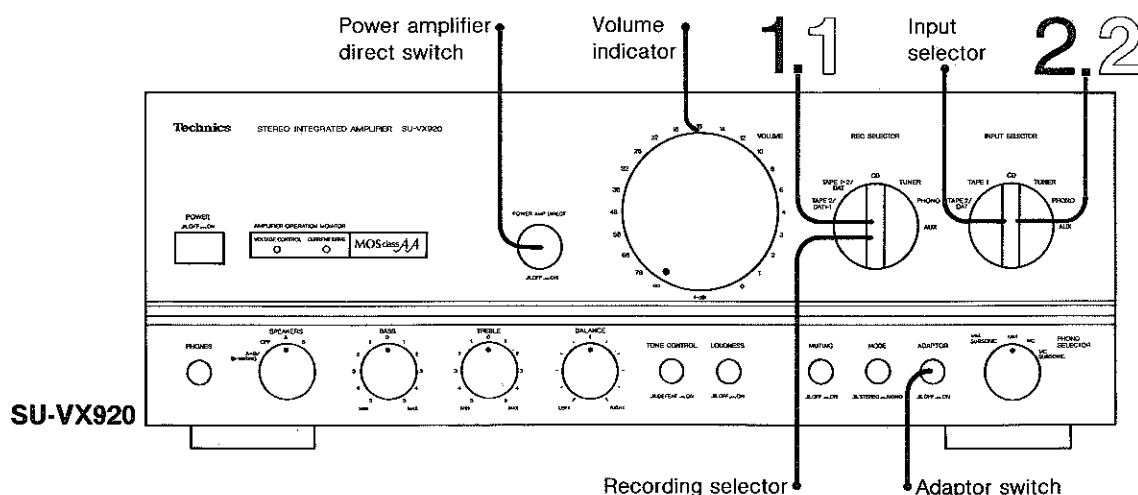
Use the volume control to reduce the volume level and switch OFF the power of each unit.

Recording

Note:

Tape deck 1 is the tape deck connected to the "TAPE 1" terminals.

Tape deck 2 is the tape deck connected to the "TAPE 2/DAT" terminals.



To record from compact discs, etc.

- 1 Select the program source to be recorded.**
CD: Set to this position to record from compact discs.
TUNER: Set to this position to record from radio broadcasts.
PHONO: Set to this position to record from phono discs.
AUX: Set to this position to record from equipment connected to the "AUX" terminals.

- 2 Set the input selector to the same position as the recording selector has been set.**

- 3 Start recording, and play back the source.**
 (Refer to the operating instructions for the tape deck for detailed operation of the recording level adjustment.)

Tape-to-tape recording

Tape-to-tape recordings can be made if two regular tape decks, or one regular tape deck and a digital audio tape (DAT) deck, are connected to the rear panel of this unit.

To record from tape deck 2 (or DAT) to 1

- 1 Set the recording selector to "TAPE 2/DAT" ► 1".**
- 2 Set the input selector to "TAPE 2/DAT".**
- 3 Start the tape deck 1 for recording and the tape deck 2 (or DAT) for playback.**

To record from tape deck 1 to 2 (or DAT)

- 1 Set the recording selector to "TAPE 1 ► 2/DAT".**
- 2 Set the input selector to "TAPE 1".**
- 3 Start the tape deck 2 (or DAT) for recording and the tape deck 1 for playback.**

To listen to a source other than the one being recorded

Select the source by using the input selector or power amplifier direct switch.

To check the sound recorded

With a tape deck with 3 heads, it is possible to check the sound recorded on the tape.

Set the input selector to "TAPE 1" or "TAPE 2/DAT" and the monitor switch on the tape deck to "TAPE".

TAPE 1: when recording on tape deck 1.

TAPE 2/DAT: when recording on tape deck 2.

Technical Specifications

(DIN 45 500)

■ MAIN AMP. SECTION (POWER AMP. DIRECT input)

20 Hz~20 kHz continuous power output
both channels driven

SU-VX920 2 × 110 W (8 Ω)

SU-VX820 2 × 90 W (8 Ω)

1 kHz continuous power output
both channels driven (THD: 1%)

SU-VX920 2 × 130 W (8 Ω)
2 × 180 W (4 Ω)

SU-VX820 2 × 100 W (8 Ω)
2 × 135 W (4 Ω)

63 Hz~12.5 kHz continuous power output
both channels driven (THD: 0.7%)

SU-VX920 2 × 120 W (8 Ω)
2 × 160 W (4 Ω)

SU-VX820 2 × 90 W (8 Ω)
2 × 125 W (4 Ω)

Total harmonic distortion
rated power at 20 Hz~20 kHz 0.007% (8 Ω)
half power at 20 Hz~20 kHz 0.005% (8 Ω)
half power at 1 kHz 0.0009% (8 Ω)
0.002% (4 Ω)

Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE)
rated power 0.007% (8 Ω)

Residual hum and noise 0.2 mV

Damping factor 80 (8 Ω)

40 (4 Ω)

Headphones output level/Impedance 635 mV/330 Ω

Load impedance

A or B, BI-WIRING 4~16 Ω

A and B 8~16 Ω

■ PRE AMP. SECTION

Input sensitivity/Impedance

PHONO MM 2.5 mV/47 kΩ

MC 250 μV/220 Ω

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT 150 mV/22 kΩ

For SU-VX920 only **ADAPTOR** 150 mV/22 kΩ

POWER AMP. DIRECT 1 V/18 kΩ

Phono maximum input voltage (1 kHz, RMS)

MM 170 mV

MC 15 mV

S/N (Rated power, 4 Ω)

PHONO MM 79 dB (86 dB, IHF '66)

MC 68 dB (68 dB, IHF '66)

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT 97 dB (100 dB, IHF '66)

For SU-VX920 only **ADAPTOR** 97 dB (100 dB, IHF '66)

POWER AMP. DIRECT 106 dB (115 dB, IHF '66)

S/N at -26 dB power (4 Ω)

PHONOMM 77 dB

MC 67 dB

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT 84 dB

For SU-VX920 only **ADAPTOR** 84 dB

S/N at 50 mW power (4 Ω)

PHONO MM 75 dB

MC 67 dB

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT 78 dB

For SU-VX920 only **ADAPTOR** 78 dB

Frequency response

PHONO MM RIAA standard curve ±0.8 dB
(30 Hz~15 kHz)

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT
3 Hz~100 kHz (+0, -3 dB)
+0 dB, -0.2 dB (20 Hz~20 kHz)

For SU-VX920 only **ADAPTOR**

3 Hz~100 kHz (+0, -3 dB)
+0 dB, -0.2 dB (20 Hz~20 kHz)

POWER AMP. DIRECT 3 Hz~120 kHz (+0, -3 dB)
+0 dB, -0.2 dB (20 Hz~20 kHz)

Tone controls

BASS 50 Hz, +10~-10 dB

TREBLE 20 kHz, +10~-10 dB

Muting -20 dB

Subsonic filter 20 Hz, -12 dB/oct

Loudness control (volume at -30 dB) 50 Hz, +9 dB

Output voltage

TAPE 1, TAPE 2/DAT REC OUT 150 mV

Channel balance, (AUX 250 Hz~6.3 kHz) ±1 dB

Channel separation (AUX 1 kHz) 50 dB

■ GENERAL

Power consumption

SU-VX920 440 W

SU-VX820 320 W

Power supply AC 50 Hz/60 Hz, 230/240 V

Dimensions (W × H × D) 430 × 158 × 429 mm

Weight

SU-VX920 16.5 kg

SU-VX820 13.4 kg

Notes:

- Specifications are subject to change without notice.
Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

For United Kingdom only

This apparatus was produced to BS 800.

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your Technics dealer for instructions.

Problem	Probable cause(s)	Suggested remedy
During phono disc play		
The sound lacks clarity and volume.	The phono cartridge selector is incorrectly set to the "MM" position when a moving-coil type cartridge is being used.	• Set it to the "MC" position.
The high-frequency range cannot be clearly heard.	The phono cartridge selector is incorrectly set to the "MC" position when a moving-magnet type cartridge is being used.	• Set it to the "MM" position.

Problems noted at all times		
No sound is heard when the power is switched ON.	The power cord plug is not completely inserted.	• Confirm that the power cord plug is connected completely.
	Connections to the speakers, etc. are incomplete or incorrect.	• Check to be sure that all connection wires are correctly connected.
	The input selector's setting is incorrect.	• Check to be sure that the selection of the desired sound source is made correctly.
	The speaker selector is set incorrectly.	• Set it to the correct position.
When listening to stereo sound, the sound lacks depth (i.e. thin bass, tinny sound.)	One of the speakers is connected out of phase [(+)→(-), (-)→(+)].	• Reconnect the speakers maintaining proper polarity [i.e., (+)→(+), (-)→(-)].
When listening to stereo sound, the left and right sounds are reversed.	The left and right speaker connections, source connections, or graphic equalizer connections are reversed.	• Check all connections and correct them if necessary.
A low-pitched noise ("hum" or "buzz") is heard.	The power cord or a fluorescent light, etc., is near the connection wires.	• Try separating this unit as far as possible from the electric appliance.
Sound is not heard from one of the speakers.	The speaker wires are disconnected.	• Check and correct the connections of the speaker wires.
	The balance control is set too far to one side.	• Set so that sounds are heard at the center, between the speakers.
Sound stops during a performance, or no sound is heard when the power is switched ON.	The protection circuitry has functioned because the positive and negative speaker connection wires are "shorted", speakers with an impedance less than the indicated rated impedance of the amplifier are used, or DC voltage appears in the output, causing the protection circuitry to function.	<ul style="list-style-type: none"> • Switch OFF the power, and, after determining and correcting the cause, switch ON the power once again. • Use the speakers of the proper impedance rating.

Maintenance

To clean this unit, use a soft, dry cloth.

For very dirty surfaces, dip a soft cloth in a weak soap-and-water solution and wring well. After cleaning, wipe with a soft, dry cloth.

Never use alcohol, paint thinner, benzine, or a chemically treated cloth to clean this unit.

Such chemicals may damage the unit's finish.

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