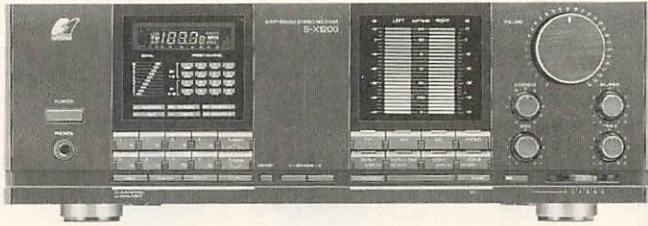


S-X1200

OPERATING INSTRUCTIONS
MODE D'EMPLOI
MANUAL DE INSTRUCCIONES



**CAUTION**RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ENGLISH**Table of contents**

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5~14



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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

- The Model No. and Serial No. of your unit are shown on its back panel.
- SANSUI attests that this product conforms with EEC directive 82/499/EEC.

**CAUTION**RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: POUR REDUIRE LES DANGERS DE DECHARGE ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE (OU LE PANNEAU ARRIERE). L'APPAREIL NE RENFERME AUCUNE PIECE, REPARABLE PAR L'UTILISATEUR. CONFIER TOUTE REPARATION OU ENTRETIEN A UN PERSONNEL QUALIFIE.

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15~24



Le symbole à flèche brisée dans un triangle équilatéral a pour but d'attirer l'attention de l'utilisateur sur la présence, à l'intérieur du coffret, d'une "tension dangereuse" non isolée qui est d'une importance suffisante pour constituer un risque de décharge électrique pour les êtres humains.



Le point d'exclamation dans un triangle équilatéral a pour but de signaler à l'utilisateur la présence d'explications importantes, relatives à l'exploitation et à l'entretien, dans le texte accompagnant l'appareil.

ATTENTION: Pour éviter les dangers d'électrocution ou d'incendie, ne pas exposer cet appareil à la pluie ou à l'humidité.

- Le numéro du modèle et le numéro de série de l'appareil sont inscrits sur son panneau arrière.
- La société SANSUI déclare que cet appareil est conforme aux prescriptions de la directive 82/499 CCE.

**CAUTION**RISK OF ELECTRIC SHOCK
DO NOT OPEN

PRECAUCION: PARA REDUCIR EL PELIGRO DE DESCARGAS ELECTRICAS, NO SACAR LA CUBIERTA (POSTERIOR). EN EL INTERIOR NO HAY PARTES QUE PUEDA REPARAR EL USUARIO. EL SERVICIO DEL APARATO LO DEBERA REALIZAR PERSONAL TECNICO CUALIFICADO.

ESPAÑOL**Indice**

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25~34



La iluminación parpadea con un símbolo de flecha, dentro de un triángulo equilátero, para avisar al usuario de la presencia de "tensión peligrosa" no aislada dentro de la caja del aparato de una magnitud suficiente para constituir peligro de descargas eléctricas para las personas.



El punto de exclamación de dentro del triángulo equilátero es para avisar al usuario de la presencia de instrucciones importantes de operación y mantenimiento (servicio) en los manuales que se sirven con el aparato.

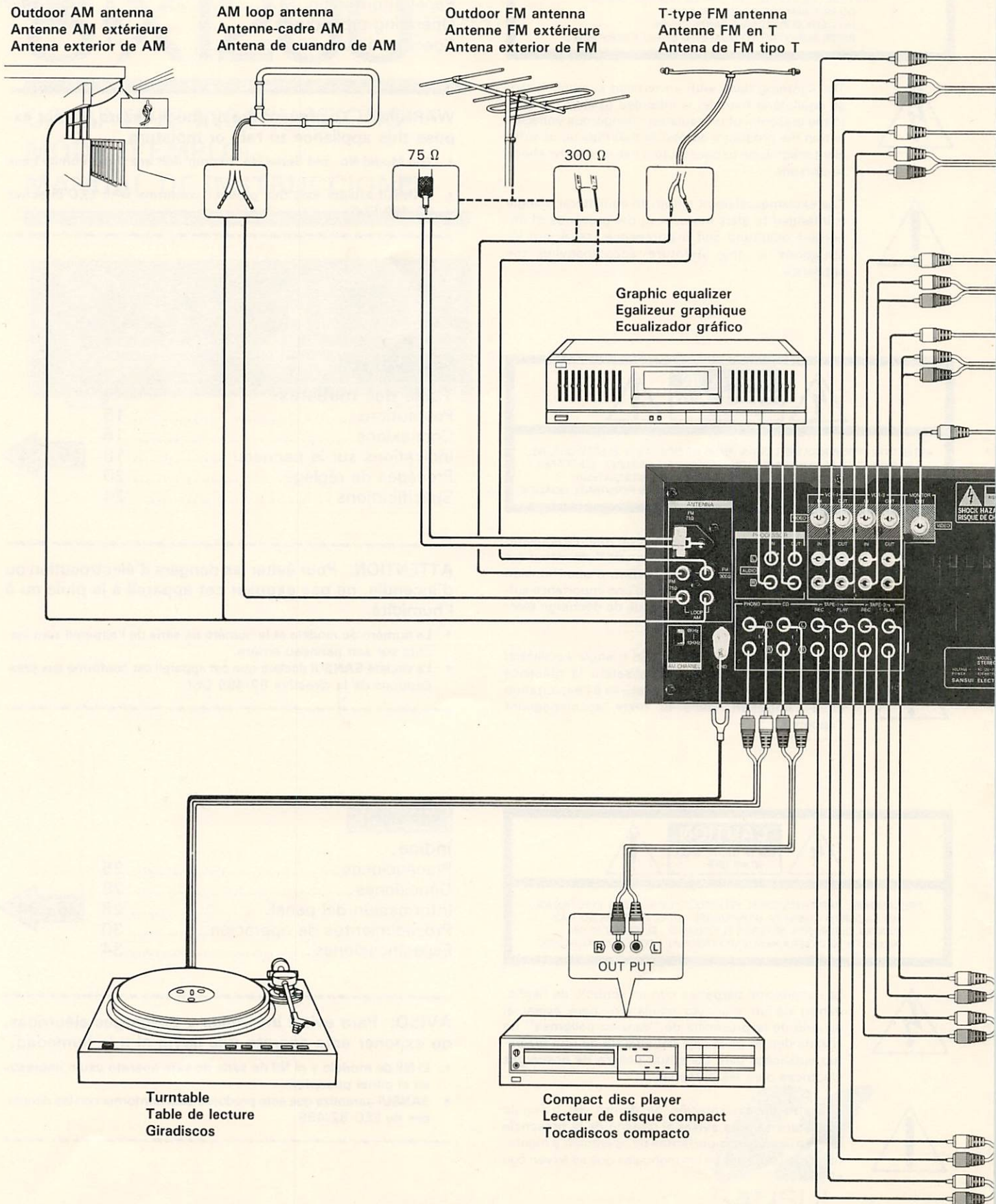
AVISO: Para evitar incendios y descargas eléctricas, no exponer este aparato a la lluvia ni a la humedad.

- El Nº de modelo y el Nº de serie de este aparato están impresos en el panel posterior.
- SANSUI garantiza que este producto está conforme con las directrices de EEC 82/499.

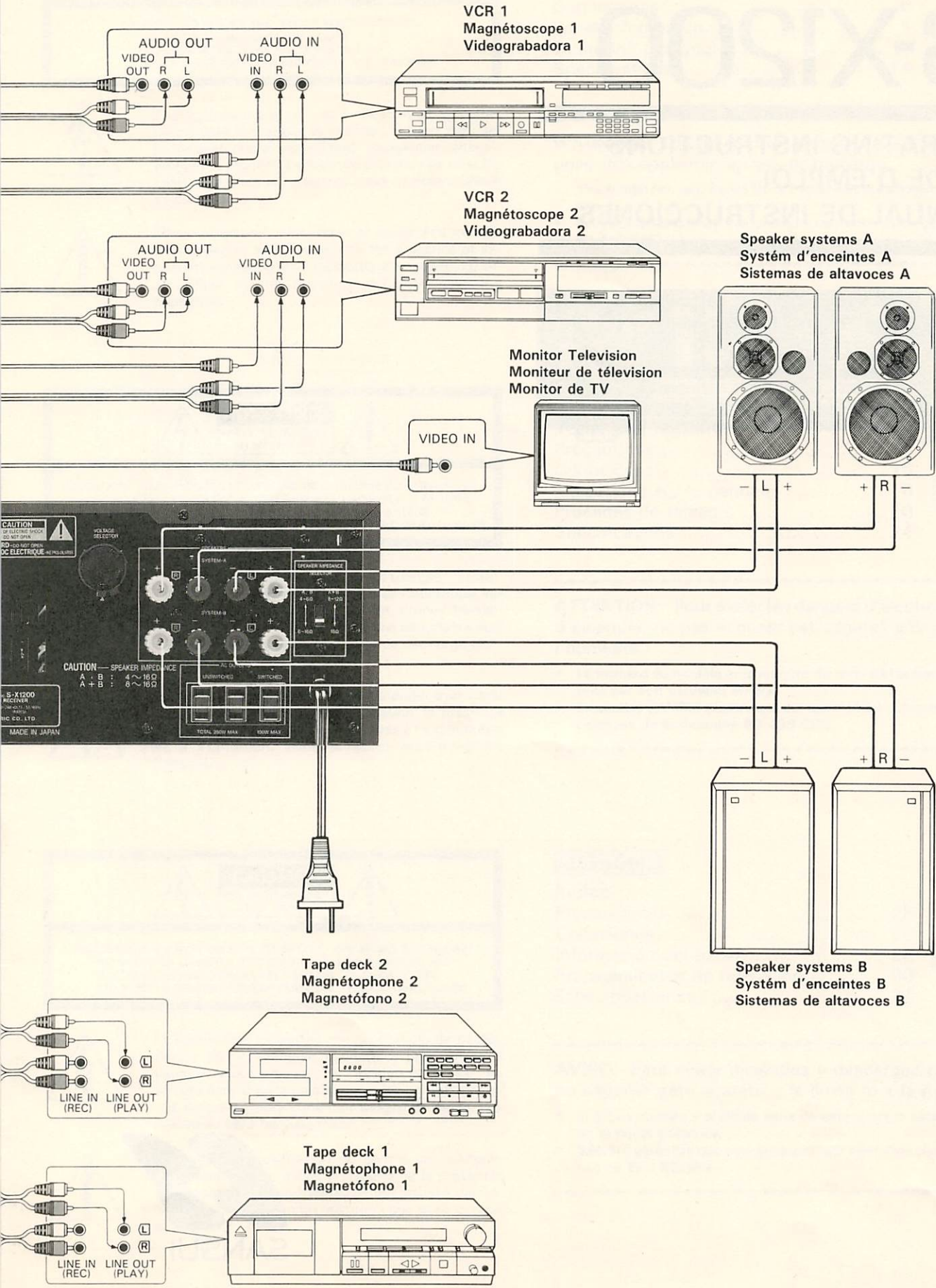
Connection diagram (Refer to page 6.)

Schéma de branchement (On trouvera, en page 16.)

Diagrama de conexiones (Referirse a la página 26.)



- * Mains plug may vary to some extent depending on sales area, local laws and regulations.
- * La prise secteur peut varier dans une certaine mesure en fonction du pays où l'appareil est vendu et des lois et réglementations de ce pays.
- * El enchufe del cable de alimentación puede variar hasta cierto punto de acuerdo con el país de venta, leyes vigentes y regulaciones.



Thank you for purchasing this fine SANSUI product. Taking the time to read these operating instructions carefully before use will acquaint you fully with all its features and help ensure optimum performance.

Precautions

Power plug

When disconnecting the power cord from the power outlet, always take hold of the plug, and not the wire, and pull free. Never connect or disconnect the power plug with wet hands since you may receive an electric shock.

- * Remember to disconnect the power plug from the power outlet when you do not intend to use the unit for a prolonged period of time.

Do not remove the case and bottom panel

Any inspections or adjustments inside the unit may lead to malfunctions and electric shocks. Do not touch any of the inside parts. SANSUI's warranty is not effective if a deterioration in the unit's performance results from remodeling inside.

Do not block the ventilation holes

Do not block the ventilation holes on the top of the unit by placing records or other objects over them. This will increase the inside temperature and may lead to a failure or malfunction.

Installation precautions

Do not install the unit in any of the following locations since this may result in a deterioration in performance or malfunction:

- * Locations exposed to direct sunlight or near objects radiating heat such as heating appliances.
- * Locations exposed to moisture or humidity.
- * Locations with poor ventilation exposed to dust and dirt.
- * Locations which are unstable and not perfectly flat or which are susceptible to vibration.

Do not wipe with thinners

Wipe the panels and case from time to time with a soft cloth. Using any kind of thinner, alcohol or volatile liquid will mar the surface, cause blotching on the exterior and erase the markings and should therefore be avoided.

Do not use insecticide sprays in the vicinity.

AM channel plans

AM programs are being broadcast under channel plans which, depending on the broadcasting area in the world, are characterized by different channels (frequency intervals) between broadcasting stations. In North, Central and South America, this channel is 10 kHz whereas in the rest of the world, it is 9 kHz.

Your unit is a synthesizer tuner which varies the reception frequency at each 9 kHz or 10 kHz channel (frequency interval) during reception. If you use your unit in an area with a different channel plan, you may not be able to receive AM stations. The unit you have purchased has been adjusted to the channel in your area. It is therefore necessary to change over the channel setting if you move to an area with a different channel plan.

1. Disconnect the power supply of the unit.
 2. Slide the AM CHANNEL selector switch, located at the rear panel of the unit, to the proper position.
- * Make inquiries at your dealer or nearest Authorized Sansui Service Station if your unit is not provided with an AM CHANNEL selector switch.

CAUTION: Depending on the sales area, your unit may or may not be provided with an AM CHANNEL selector switch.

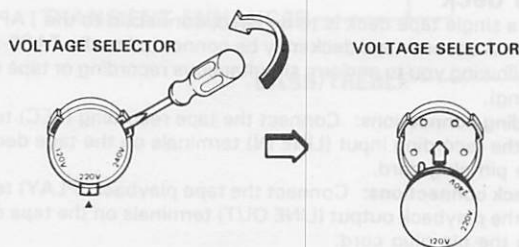
- * In order to simplify the explanation illustrations may sometimes differ from the originals.

Before connecting the power plug

Before connecting the power plug to an electrical outlet, check to be sure that the unit is set to the proper voltage for your area. If the voltage of the unit is improperly set, fire hazard or damage to the unit may result. If you find that the unit is not set to the proper voltage for your area, follow the instructions listed below:

• Units with 120V/220V/240V VOLTAGE SELECTOR at rear panel

These units are set at either 120V, 220V or 240V with the VOLTAGE SELECTOR. To change the voltage use a minus screwdriver to remove the plug, and reinsert it so that the mark (▲) matches the desired voltage.



• Units without voltage selector switch

Units destined for some areas are not fitted with a voltage selector switch due to laws and regulations existing in those areas. In such a case, the power supply voltage is set to the voltage used in the area where the unit is purchased.

If the unit is to be used in an area where the power requirements are different, make sure you consult your nearest authorized SANSUI Service Station.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Refer to page 3 connection diagram as you read the following.

Connection precautions

- * When connecting, either disconnect the power plug from the power outlet or turn off the unit's power using the POWER switch.
- * Before connecting, read through the Operating Instructions of the other audio components which will be connected to this unit.
- * Check the left and right channels and connect properly (L to L and R to R).
- * Insert the plugs securely. Improper connection can lead to the generation of noise.

Turntable

Connect the turntable's output cord L (white) plug to the L PHONO terminal and the R (red) plug to the R terminal. If your turntable is equipped with a grounding cable, connect it to the unit's GND terminal.

Compact disc player

When a compact disc player is used, it should be connected to the CD terminals.

Use a pin plug cord to connect the unit's CD terminals to the OUTPUT terminals of the compact disc player.

Tape deck

When a single tape deck is to be used, connect it to the TAPE-1 terminals. A second tape deck may be connected to the TAPE-2 terminals, allowing you to perform simultaneous recording or tape dubbing (copying).

Recording connections: Connect the tape recording (REC) terminals to the recording input (LINE IN) terminals on the tape deck using the pin plug cord.

Playback connections: Connect the tape playback (PLAY) terminals to the playback output (LINE OUT) terminals on the tape deck using the pin plug cord.

- * You can also connect a DAT (Digital Audio Tape recorder) to TAPE-2 terminals.

Connecting VCR

You can connect two VCRs to terminals VCR-1 and 2 of this unit and either play back audio video or dub onto a video tape.

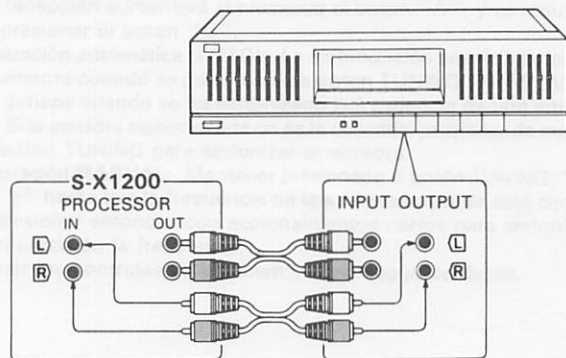
- * Connect the playback VCR or VDP to terminal VCR-2.
- * When connecting an audio monaural VCR to this terminal, connect the audio output to the AUDIO LEFT (MONO) terminal. Monaural sound will be reproduced from both the L and R channels.

Connecting monitor television

When using a monitor television, connect the MONITOR OUT terminal of this unit to the VIDEO IN terminal of the monitor television, using the video connection coaxial cable.

Connecting the graphic equalizer

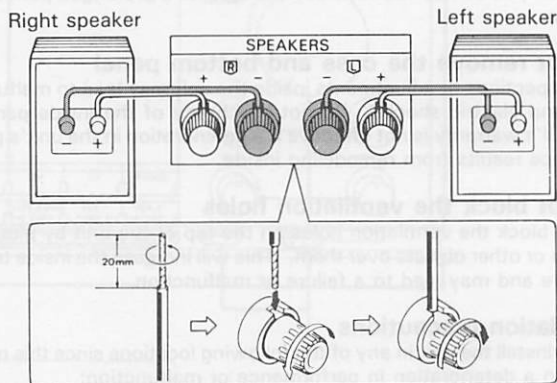
When using a graphic equalizer, connect it to the PROCESSOR terminals of this unit.



Speaker systems

Connect the speaker systems to the SPEAKERS terminals on the rear panel of the unit with the speaker cord. Two sets of speaker systems can be connected, one to SYSTEM-A and one to SYSTEM-B of the SPEAKERS terminals.

When viewed from the front (the listening position), the speaker mounted on the left should be connected to the L terminals, and the speaker mounted on the right should be connected to the R terminals. Be sure to connect the polarities of the speaker systems and the SPEAKER terminals correctly (+ to +, - to -). If the polarities of one of the speaker systems is connected improperly, sound in the central area between the speakers will appear to be missing, and the position of instruments will not be clear, resulting in a loss of stereo directionality, so take care when connecting.



- * When connecting, do not allow the conductor of the speaker cords to be exposed from the terminals and come into contact with other terminals.

About speaker system impedance

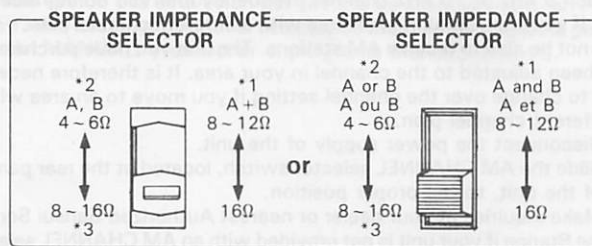
When the two speaker systems connected to the SYSTEM-A and SYSTEM-B terminals are to be used separately, their rated impedance may range from 4 ~ 16 ohms, but when two systems are to be used together (A + B), the rated impedance of both systems should be 8 ohms or more. If even one of the speaker systems has a rated impedance of less than 8 ohms, the protection circuit may operate during play, or malfunction may result.

SPEAKER IMPEDANCE SELECTOR switch

Located on the rear panel, this switch should be set to the rated impedance of the speaker systems connected to the unit.

- * The rated impedance is shown on the units themselves, or in the operating instructions, of your speakers.

If this switch is not set properly, full output may not be achieved, or abnormal heat may be produced.



- *1: When using both sets of the speaker systems connected to SPEAKERS SYSTEM-A and -B terminals.
- *2: When using only one set of speaker systems connected to either SPEAKERS SYSTEM-A or -B terminals.
- *3: Rated impedance of speaker system.

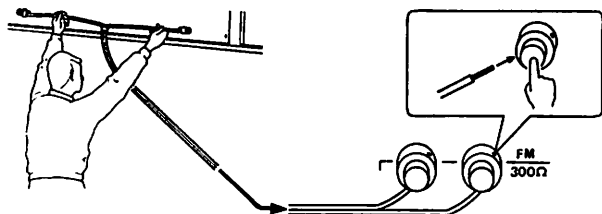
FM antenna connection

Erect an outdoor FM antenna for good FM reception with the minimum of noise. The accessory T-type antenna is provided as a stop-gap to allow FM reception until you erect the outdoor FM antenna.

Connecting the T-type antenna

Connect the antenna to the FM 300-ohms antenna terminals, spread the two ends in the shape of the letter "T," find the direction which yields the best reception and secure the antenna to the ceiling or wall. Secure it as high as possible. Reception is unstable if the antenna is installed in a low position or where people are passing by all the time.

- * Take down the T-type antenna when you have connected the outdoor FM antenna.



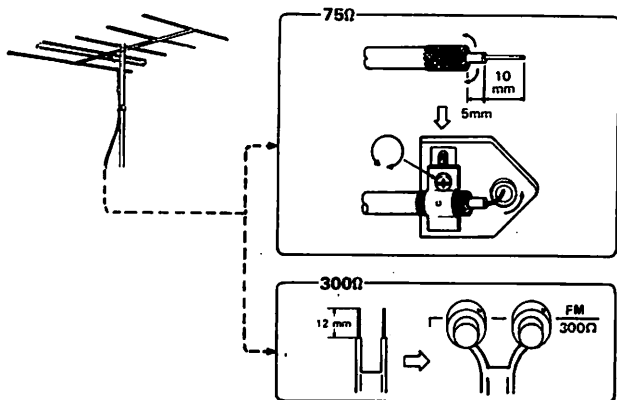
Connecting the outdoor FM antenna

There are two types of lead-in wires for connecting the tuner with the outdoor antenna: 75-ohms coaxial cable and 300-ohms feeder.

75-ohms coaxial cable connection: Strip and shape the ends of the coaxial cable as in the figure and connect them to the FM 75-ohms antenna terminals.

300-ohms feeder connection: Strip and shape the ends of the feeder as in the figure and connect them to the FM 300-ohms antenna terminals.

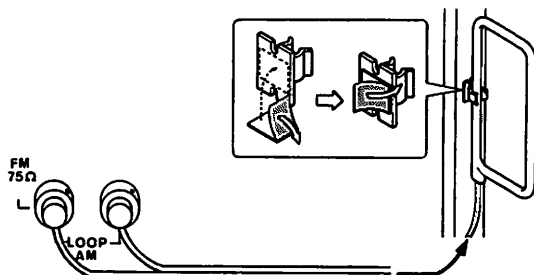
- * Keep the lead-in wire at a distance from power cords and lights. Any excess wire should not be bundled up but cut.



AM loop antenna connection

Connect the cord of the accessory AM loop antenna to the AM LOOP ANTENNA terminals on the rear panel of the unit and attach the antenna to the antenna holder as shown in the figure. Move the antenna to find the position for best reception.

- * AM reception is not possible with the loop antenna detached. Even if an outdoor AM antenna is erected, keep this loop antenna in place.
- * Do not bring the power cord or the speaker cords near the loop antenna since noise will be generated.
- * Reception may be unstable if the loop antenna is installed very close to the wall. Install the antenna away from the wall.



AC OUTLETS

This unit is provided with auxiliary AC OUTLETS which are handy for connecting a tuner, tape deck or turntable to supply power to these units.

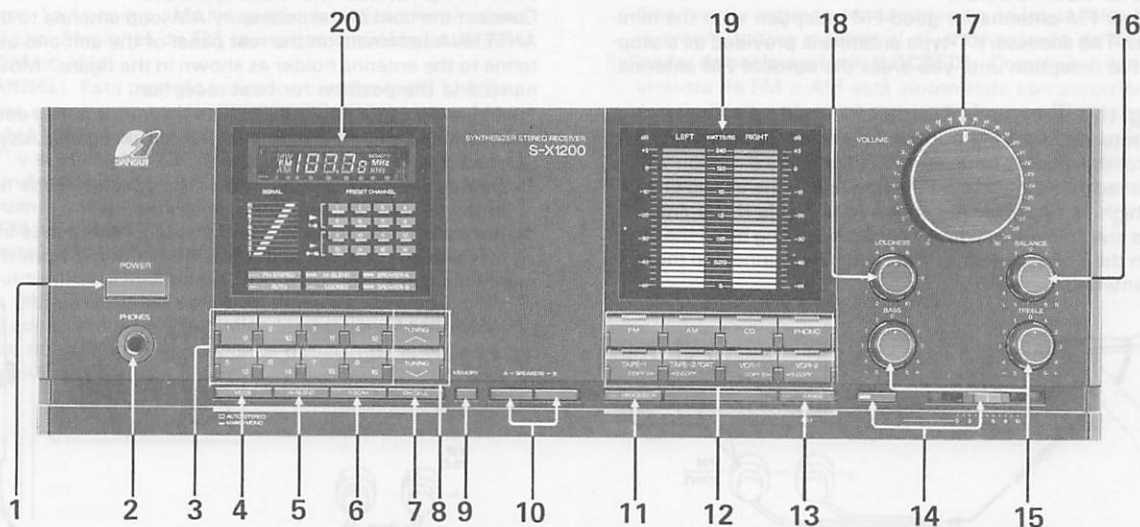
SWITCHED (100W capacity): The power of the connected components is switched on and off when the unit's POWER switch is operated.

UNSWITCHED (250W total capacity): The power is supplied to the connected components regardless of the position of the unit's POWER switch.

It is extremely dangerous to connect an electrical appliance having a power consumption exceeding the specified capacity. Before connecting the appliance or components, check its power consumption rating.

- * A high voltage flows to the AC OUTLETS and so hairpins or other metal objects must not be inserted since this will result in an electric shock.

NOTE: Depending on the laws and regulation enforced locally, models without AC outlets may be supplied to some areas. Also, depending on the sales area, the shape of the AC outlets and their capacity may differ.



1 POWER Switch

By pressing this switch, power will be supplied to this unit, and the display and FM or AM indicator will light, indicating that a broadcast can be received.

By pressing this switch once again, the unit will be turned off.

2 PHONES Jack

This is the output jack for stereo headphones. Plug your headphones into this jack for private listening.

* When not using headphones, be sure to remove the plug from this jack.

3 PRESET STATION Switches

By presetting (memorizing) the frequencies of the broadcasting stations which you listen to often, you can easily select a desired station. You can preset a total of 16 AM and FM stations at random. The numbers 1 to 16 on the PRESET STATION switches correspond to the preset channels. By pressing one of these switches when the "1-8" indicator of the RESET CHANNEL is lit, a channel between 1 and 8 will be called. By pressing the CH CALL switch, the "9-16" indicator will light. If you then press one of the PRESET STATION switches, a channel between 9 and 16 will be called, and the red indicator will light, indicating the called channel.

4 MODE Switch

This switch controls the following functions:

1. AUTO/MONO Selection of FM Reception Mode

When set to the AUTO/STEREO (□) position, FM stereo broadcasts are automatically received in stereo and monophonic broadcasts are received in monaural.

2. FM Muting Circuit ON/OFF

When set to the AUTO/STEREO (□) position, the FM muting circuit is turned on and works to eliminate interstation noise on the FM band.

For reception of FM broadcasts with a weak signal strength, set to the MANU/MONO (■) position to turn the muting circuit off and change the reception mode to monaural.

3. AUTO/MANUAL Selection of FM/AM Tuning Mode

When set to the AUTO/STEREO (□) position, stations will be tuned in automatically when the TUNING switch is pressed. When set to the MANU/MONO (■) position, use the TUNING switch to perform manual tuning of the desired station.

* This switch is normally used in the "AUTO/STEREO" (indicator lit) position. When receiving a weak FM or AM station, press it the "MANU/MONO" (indicator goes out) position.

5 HI-BLEND Switch

By pressing this switch when high frequency noise from a stereo FM broadcast is a problem, the indicator will light, and the noise will be reduced. By pressing it once again, the noise reduction function will be canceled and the indicator will go out.

6 P. SCAN Switch (Preset Scan)

By pressing this switch, you can automatically hear each station which is memorized in preset station switches 1 to 8, or switches 9 to 16, for about 5 seconds at a time.

When the desired station is received, press this switch once again to stop the preset scan.

* Switch over between channels 1 to 8, and channels 9 to 16, using the CH CALL switch. (When this switch is pressed, the indicator will flash for 5 seconds.)

7 CH CALL Switch (Channel Call)

Before pressing a PRESET STATION switch, press this switch to select the channel group to be called (channels 1 to 8 or channels 9 to 16). Each time you press this switch, the indicator will alternately change to "1-8" or "9-16", indicating the selected channel group.

8 TUNING Switches

These switches are used to tune in the desired station. Depending on the switching of the MODE switches, tuning can be performed either in the AUTO or MANUAL mode.

AUTO tuning: Auto tuning starts when up (Λ) or down (V) switch is depressed and stops automatically as soon as a station is picked up.

The reception frequency increases when the up (Λ) switch is depressed and decreases when the down (V) switch is depressed.

MANUAL tuning: Every time the up (Λ) switch is depressed, the reception frequency is increased by 50 kHz or 100 kHz for FM and 10 kHz or 9 kHz for AM (depending on the sales area, it has been adjusted to one of the two). The reception frequency increases if the switch is pressed continuously and stops when the finger is removed from the switch. When down (V) switch is depressed, reception frequency decreases in a similar way.

* Auto tuning will not stop until a broadcast is tuned in. To stop tuning operation half-way, depress the MODE switch.

* For MANUAL tuning, if the TUNING switch is held in the depressed position, tuning operation will be stopped when the reception frequency reaches its upper or lower limit.

9 MEMORY Switch

By pressing this switch, the "MEMORY" indicator in the frequency display will light for about 10 seconds. If you press one of the PRESET STATION switches once during this period, the frequency of the broadcast presently being received will be memorized in that switch.

10 SPEAKERS Switches

This switch is used to select the speaker system you wish to use. Press the A or B switch to the "ON" (indicator lights up) position in accordance with the SPEAKERS terminals to which the speaker system is connected.

When using two speaker systems simultaneously, press both switches A and B to the "ON" position.

When both speaker systems are to be muted, press both switches A and B to the "OFF" (indicator goes out) position.

* Set the SPEAKER IMPEDANCE SELECTOR switch on the unit's rear panel in accordance with the rated impedance of the speakers you use.

Particularly, be careful when using both A and B speaker systems simultaneously.

11 PROCESSOR Switch

Press this switch when using a graphic equalizer connected to the PROCESSOR terminals. The indicator will light, and the sound will be compensated by the graphic equalizer. By pressing the switch once again, the graphic equalizer will be canceled, and the indicator will go out. When not using a graphic equalizer, leave the switch in this position.

12 Input Selector Switches

Use these switches to select the program source to be played back or recorded, or to set the dubbing mode. When one of these switches is pressed, the indicator will light.

FM: Press to receive an FM broadcast.

AM: Press to receive an AM broadcast.

PHONO: This switch is depressed when you wish to listen to records on the turntable connected to the PHONO terminals.

CD: This switch is depressed when you wish to listen to discs on the compact disc player connected to the CD terminals.

TAPE-1: Press this switch to play a tape in a tape deck connected to the TAPE-1 terminal, or to dub from TAPE-1 to TAPE-2.

* Note that if you press this switch while recording a program source using TAPE-1, recording will be interrupted.

TAPE-2/DAT: Press this switch to play a tape in a tape deck or DAT connected to the TAPE-2/DAT terminal, or to dub from TAPE-2 or DAT to TAPE-1.

* If you wish to listen to another program source, press this switch once more, and the TAPE-2 indicator will go out.

* By pressing the TAPE-2 switch when recording using TAPE-2, the recorded signal will be output from the PLAY terminal of the tape deck, enabling you to monitor it.

VCR-1: Press this switch when you wish to play a tape in VCR-1 connected to terminal VCR-1.

* Also use this switch when you wish to dub from VCR-1 to VCR-2.

VCR-2: Press this switch when you wish to play a tape in VCR-2 connected to terminal VCR-2.

* Also use this switch when you wish to dub from VCR-2 to VCR-1.

13 RANGE Switch

This switch is used to select the sensitivity of the peak power display (normal or high). By pressing this switch, the indicator will light and the sensitivity of the meter will rise. By pressing it once again, the indicator will go out and the sensitivity will return to normal.

14 TRANSIENT ENHANCER Switch

By pressing the TRANSIENT ENHANCER switch, the indicator will light and the sound attacker function and super bass synthesizer function will go ON.

The sound attacker accentuates the rise of the input signal, providing additional modulation to the music source.

By sliding the control to the right, the super bass synthesizer will function: Low frequencies of between 60 to 120 Hz in the music source are detected and converted into very low frequencies of one octave lower, that is, between 30 and 60 Hz. These frequencies are then mixed with the original sound, resulting in more dynamic sound.

* When the control is set to "0", the super bass synthesizer will not function.

15 Tone Controls (BASS/TREBLE)

These are controls used for adjusting the tone level of sound produced from speaker systems and headphones.

The BASS control can be used for adjusting the low-frequency sound, and the TREBLE control can be used for adjusting the high-frequency sound. The tone of the respective controls is emphasized when the controls are turned to the right from the central position, and when turned to the left, tone is reduced.

When the tone controls are set to the central position, frequency characteristics are flat.

16 BALANCE Control

This control is used to attain a balance between the left and right channel volume.

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.

When this control is turned to the "LEFT" or "RIGHT" position, the sound from one channel will be cut off completely. Normally, this control is kept at the center click stop position.

17 VOLUME Control

This control adjusts the volume of the speakers or headphones. The sound is increased as it is rotated clockwise. Listen to music and set it to a comfortable listening level.

18 LOUDNESS Control

Under low-volume listening conditions, the human ear is less sensitive to bass and high treble sounds; under these conditions low range and high range sounds may be inadequately heard.

By adjusting this control when reproducing a source at a low volume level, you can boost the low and high frequencies. Set this control to provide well balanced sound.

By setting this control to "0", flat frequency characteristics will be obtained.

19 Peak Power Display

This indicates the power output and so monitor this display when adjusting the volume. Displayed is the output power* in watts when speakers with an 8-ohms impedance are used.

* When impedance is other than 8 ohms, the actual output will differ from output shown on the display. Conversion is then necessary for correct readings. To do so, multiply the read value by 8, divided by the connected speaker's impedance.

$$\text{Indicated power (watts)} \times \frac{8}{\text{Speaker's impedance (ohms)}} = \text{Correct power (watts)}$$

20 Display

Frequency Display: Reception frequency is indicated by digital display. FM broadcast is displayed in MHz unit and AM broadcast is in kHz unit.

PRESET CHANNEL: This display indicates the channel (1 to 16) selected by the PRESET STATION switch and the CH CALL switch. For example, in the case of channel 3, the "1~8▷" indicator and the indicator "3" will light, and for channel 12, the "9~16▷" indicator and the indicator "12" will light.

FM STEREO Indicator: When the MODE switch is at AUTO/STEREO and an FM stereo broadcast is tuned in, this indicator lights to show that the broadcast is being received in stereo.

When the MODE switch is at MANU/MONO, the indicator does not light even if the program is broadcast in stereo.

SIGNAL Indicators: These indicators light from left to right in accordance with the strength of the signals picked up by the antenna and show the input level of the signals.

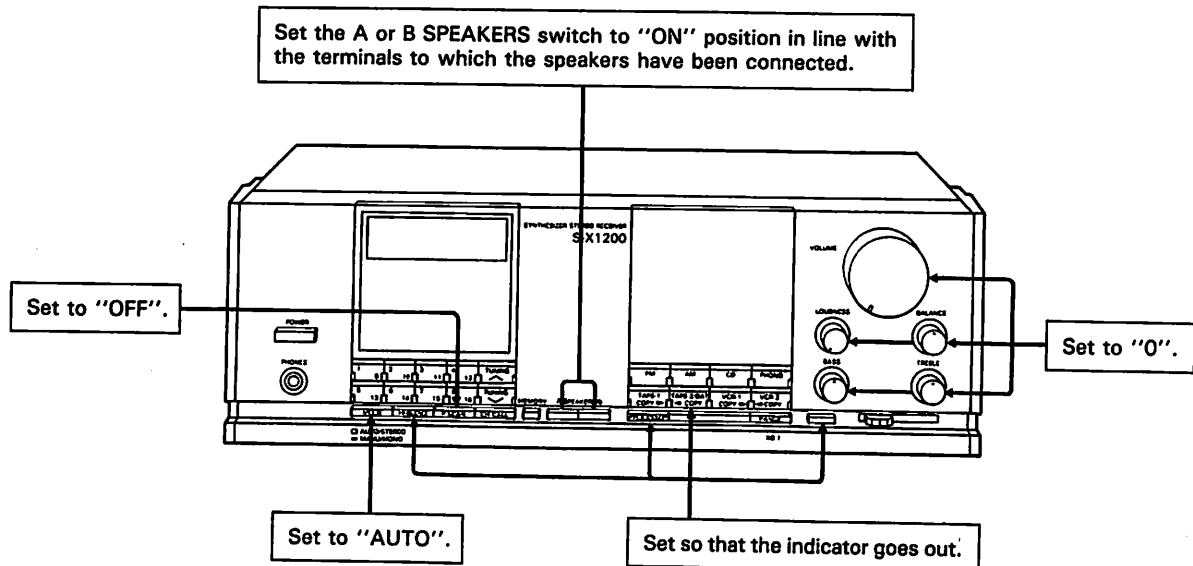
LOCKED Indicator: When the frequency of an FM or AM station is tuned in precisely, this indicator lights to "lock" the station for optimum reception.

* This indicator may not light when the station signals are weak and the input from the antenna is insufficient.

Operating procedures

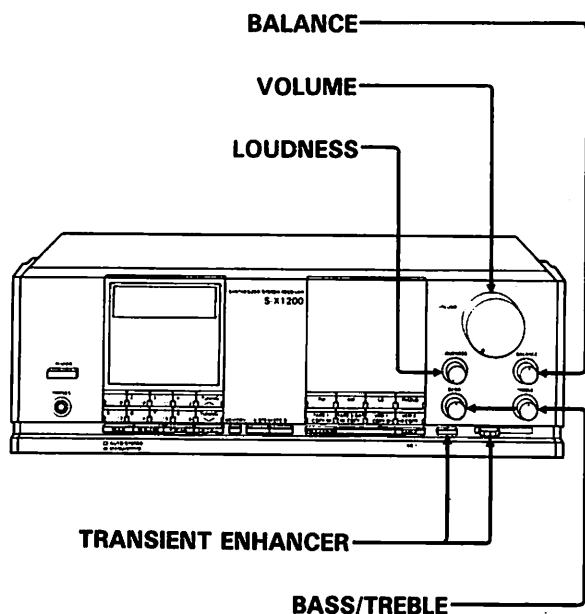
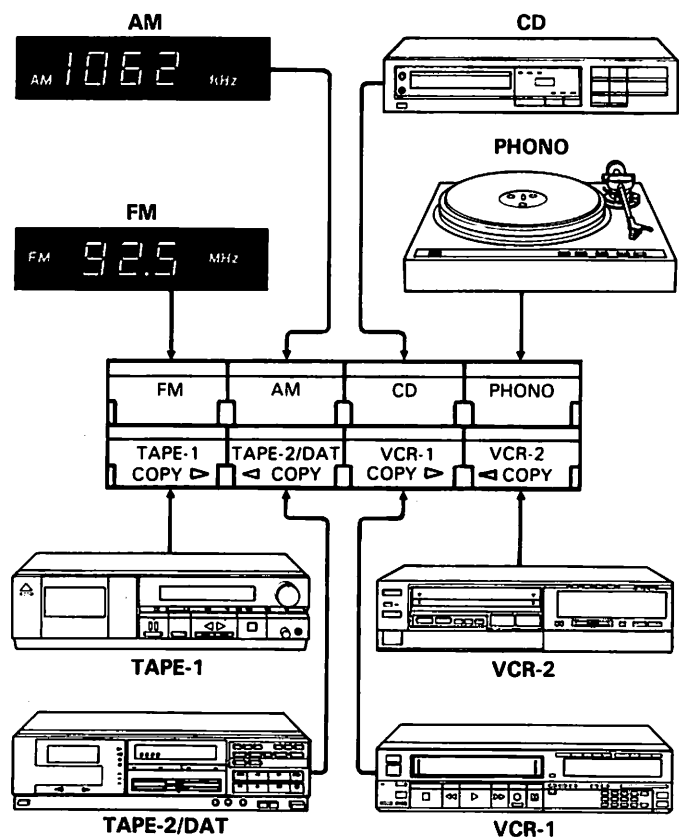
Before switching on the power

Before switching on the power, check the positions of the various controls.



After these checks, depress the **POWER** switch to turn on the power.

- For several seconds after you've turned the unit on, no sound will come from the speakers; the built-in protection circuit is at work until the circuits inside the unit are electrically stabilized.
- Power will be supplied to all circuits, and the input selector switch will be automatically set to FM or AM, enabling you to listen to a radio broadcast.



Playing a program source

1. Press the desired input selector switch to select the program source which you wish to listen to.

To listen to a record: Press the PHONO switch.

Operate the turntable and play the record.

To listen to an FM broadcast: Press the FM switch and select the desired broadcast station.

To listen to an AM broadcast: Press the AM switch and select the desired broadcast station.

To play a tape in tape deck 1: Press the TAPE-1 switch and play the tape in the tape deck 1.

To play a tape in tape deck 2: Press the TAPE-2 /DAT switch, and the indicator will light. Then, play the tape in tape deck 2.

To listen to a compact disc: Press the CD switch.

Operate the compact disc player and play the compact disc.

To play a tape in VCR-1: Press the VCR-1 switch and put VCR-1 into the playback mode.

To play a tape in VCR-2: Press the VCR-2 switch and put VCR-2 into the playback mode.

* By connecting a video monitor, you can see the video selected by this unit.

2. Gradually turn the VOLUME control clockwise until the desired volume level is obtained.

3. Turn the BASS and TREBLE tone controls until the desired tone is obtained.

4. Turn the BALANCE control until a balance is obtained between the left and right channel output levels.

* When you wish to use headphones, insert the plug of the headphones into the PHONES jack, and press the SPEAKERS switch to the "OFF" position.

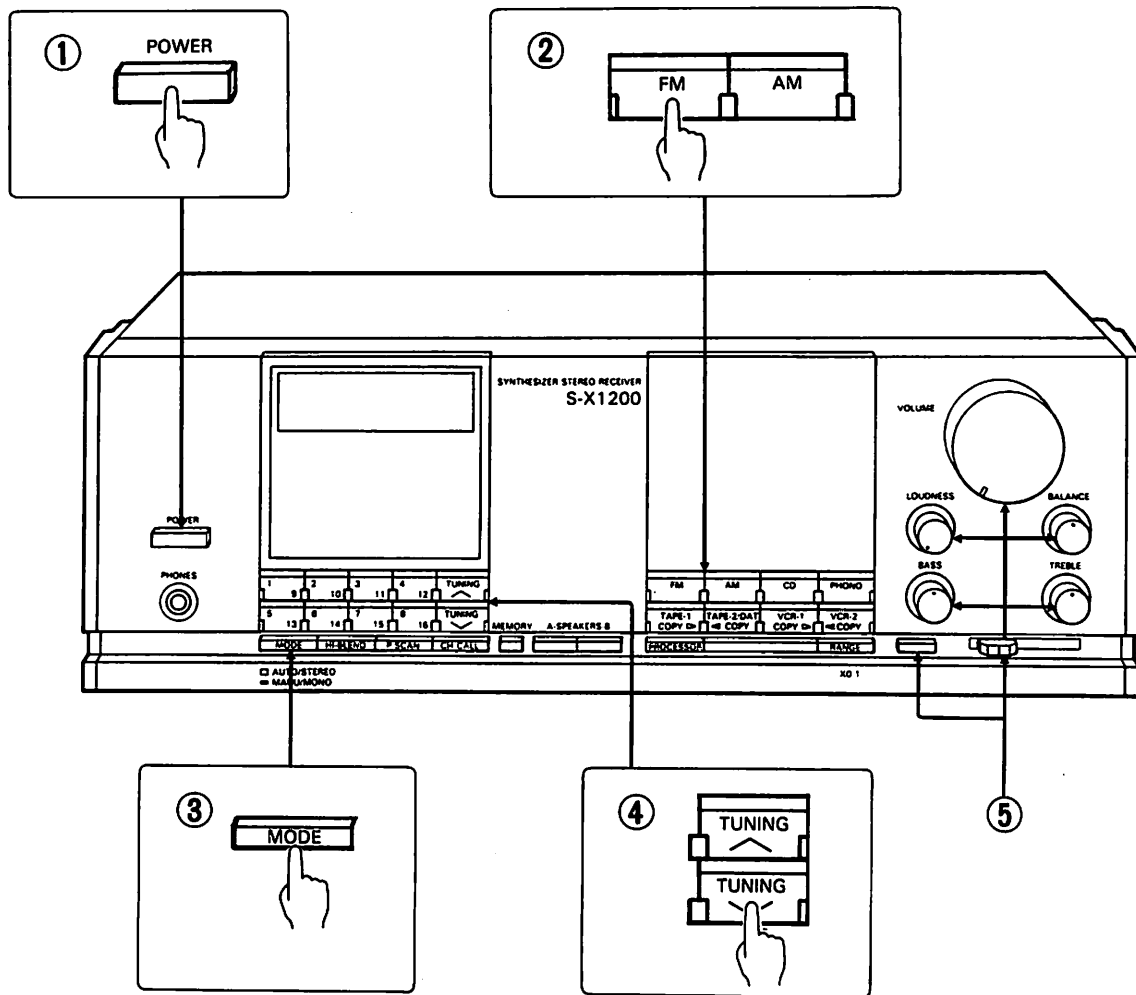
- * When listening at a low volume level, the high and low frequencies may sometimes sound weak. In this case, adjust the LOUDNESS control to compensate the output in the low and high frequency regions.

- * By pressing the TRANSIENT ENHANCER switch, the indicator will light and the sound attacker function and super bass synthesizer function will go ON.

The sound attacker accentuates the rise of the input signal, providing additional modulation to the music source.

By sliding the control to the right, the super bass synthesizer will function: Low frequencies of between 60 to 120 Hz in the music source are detected and converted into very low frequencies of one octave lower, that is, between 30 and 60 Hz. These frequencies are then mixed with the original sound, resulting in more dynamic sound.

When the control is set to "0", the super bass synthesizer will not function.



Radio reception

1. When the power is turned on, FM or AM reception is possible.
 2. Press the AM or FM selector switch to choose the desired frequency band.
 3. To perform auto tuning, set the MODE switch to the AUTO/STEREO (□) position. For manual tuning, set to the MANU/MONO (■) position.
 4. Push the TUNING switch to tune in a station. The reception frequency increases when up (Λ) switch is depressed and decreases when down (V) switch is depressed.
- AUTO Tuning:** Tuning starts automatically when up (Λ) or down (V) TUNING switch is depressed and stops when a station's frequency is tuned in. If the station picked up is not the desired station, push the TUNING switch again to tune in the station.
- MANUAL Tuning:** Keep the up (Λ) or down (V) TUNING switch depressed until you approach the desired station frequency and then give the switch single pushes to tune into the frequency accurately.
 5. Set the VOLUME and Tone Controls as desired.

- * When a broadcast station is received, the LOCKED indicator will light.
- * Auto tuning may not be possible with an FM station whose signals are weak. In this case, set the unit to the manual tuning mode. If the MODE switch is set to AUTO when an FM station with weak signals is received, there may be no sound because the FM muting circuit has been activated. In cases like this, depress the MODE switch to the MANUAL position and listen to the program in mono.

Presetting Method

- Using steps 1 to 4 of the radio reception, tune in to the station which you wish to preset.
- Set the CH CALL switch in accordance with the channel in which the station is to be memorized. To memorize the station in one of channels 1 to 8, set the CH CALL switch so that the "1~8▷" indicator lights; to memorize it in one of channels 9 to 16, set the CH CALL switch so that the "9~16▷" indicator lights.
- Press the MEMORY switch. The "MEMORY" indicator will light for about 10 seconds.
- If you press one of the PRESET STATION switches during this period, the frequency of the broadcast being presently received will be memorized in that switch.
- By repeating the procedure of 1 to 4 above, you can memorize a total of 16 FM and AM stations at random.
 - When a different station is preset into a switch in which one station has already been preset, the previously preset station will be erased.
 - This unit features a last station memory function which stores the station which was heard before the power was switched off. This function serves to automatically receive the same station when the power is switched on again.

CAUTION:

A very carefully selected capacitor is adopted to the unit to back up the station memory function. Normally, this capacitor preserves the memory for about 1 week (depending on the temperature and humidity), but if power is not supplied to the unit for a longer periods of time than this, the preset stations will be erased.

In addition, last station memory will not work.

Switch on the unit's power from time to time even if you do not listen to the broadcast for a long time. This will serve to charge the capacitor in a short time and back up of the memory function will be continued.

Receiving a preset broadcast

Operation example: To switch from an AM station presently being received on channel 4, to the FM station which is preset in Channel 16.

- At present, the "1~8▷" indicator and the "4" indicator are lit, and an AM station is being received.
- Press the CH CALL switch. The "9~16▷" indicator will light instead of the "1~8▷" indicator, and the "4" indicator will go out, however the AM station will continue to be received.
- Press the [8 16] switch. The indicator "16" will light, and the FM station which has been preset in channel 16 will be received.

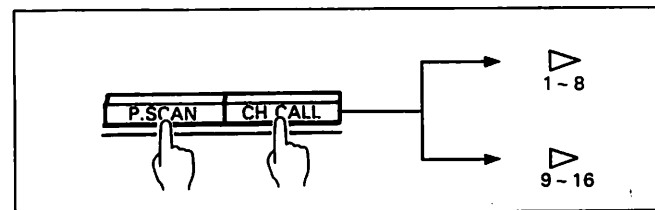
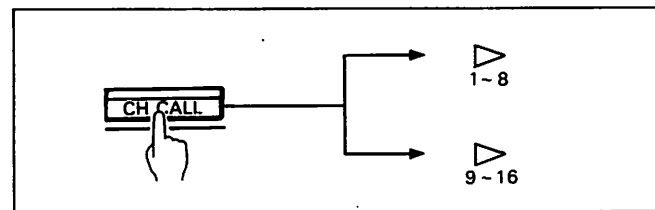
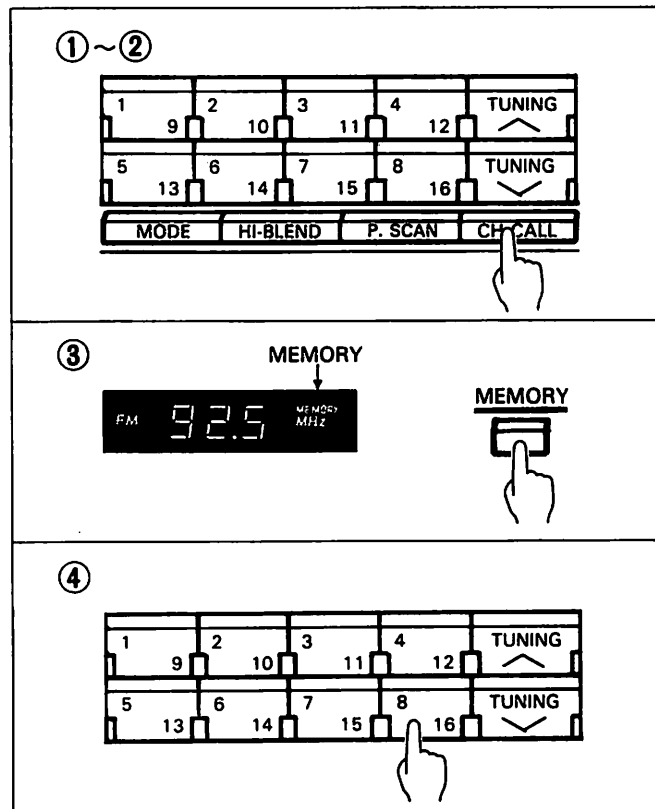
Preset scan function

This is a very useful function that enables the consecutive monitoring of programs of the stations preset in the preset station switches beforehand.

If P. SCAN switch is depressed during the reception of a broadcast, the preset stations will be picked up automatically at an interval of 5 seconds, following the order (1)→(2)→(3)→... (8)→(1)→(2) or (9)→(10)→(11)→... (16)→(9)→(10).

Thus, your desired station can be selected while monitoring the contents of each station's program. When you find the program you wish to listen to, push the P. SCAN switch again to receive that station's broadcast.

- During preset scan operation, the PRESET CHANNEL indicators will light in order, showing which station is currently being received.
- Switch over between channels 1 to 8, and channels 9 to 16, using the CH CALL switch.



Recording on a tape

Recording a program source

You can record a program source such as a record or compact disc onto a tape deck connected to the TAPE REC terminals.

1. Press the input selector switch to select the program source that you wish to record.

Recording a record: Press the PHONO switch.

Recording a radio broadcast: Press the FM or AM switch.

Recording a compact disc: Press the CD switch.

Recording a VCR-1: Press the VCR-1 switch.

Recording a VCR-2: Press the VCR-2 switch.

2. Start recording on a tape in the tape deck.

* Note that if you press the TAPE-1 switch or operate the INPUT SELECTOR while recording is taking place, recording will be interrupted.

* You can record the same program on tape deck 2 as well.

* You cannot adjust the volume and tone of the signals being recorded using the volume and tone controls.

Dubbing from tape to tape

You can also perform dubbing using a cassette deck (tape 1) connected to the TAPE-1 terminals or another cassette deck (tape 2) connected to the TAPE-2 terminals.

Dubbing from tape 1 to tape 2

1. Press the TAPE-1 input selector switch.
2. Play back a tape on tape 1 (cassette deck).
3. Operate tape 2 (cassette deck) to start recording.

Dubbing from tape 2 to tape 1

1. Press the TAPE-2 switch "ON".
 2. Play back a tape on tape 2 (cassette deck).
 3. Operate tape 1 (cassette deck) to start recording.
- * When you wish to dub from TAPE-2 to TAPE-1, press the TAPE-2/DAT switch so that the TAPE-2/DAT switch indicator lights, and set so that the TAPE-1 switch indicator goes out.

Playing a VCR

Playing VCR-1 or VCR-2: By pressing the VCR-1 or VCR-2 switch, the VCR connected to these terminals will be played. Also, if a video monitor is connected to the unit, you can view the picture selected by the switch.

Dubbing from VCR-2 to VCR-1: Carry out the following operating procedure.

1. By pressing the VCR-2 switch, VCR-2 playback preparations will take place.
2. By setting the INPUT selector of VCR-1 to "AUX", video recording preparations will take place.
3. Set the video monitor to the monitor mode of the VCR.
4. Start playing VCR-2.
5. Start VCR-1 recording at the point on the tape where you wish to start dubbing.

Recording audio using VCR: If VCR is connected to a HI-FI VCR or one with an audio dubbing function, you can record a compact disc, record, or cassette tape using the HI-FI VCR, or use the audio dubbing function to replace the audio on a recorded video tape. In this case, you can record the audio of the program source which has been selected for playing.

* For details, read the instruction manual of the VCR.

When using a graphic equalizer

If you connect a graphic equalizer to the PROCESSOR terminals of the unit, press the PROCESSOR switch and light the indicator. By operating the graphic equalizer, you can vary the frequency characteristics of the reproduced sound.

Specifications

Audio section

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz with no more than 0.018% total harmonic distortion

120 watts per channel into 8 ohms

Total harmonic distortion..... less than 0.018% at or below rated min. RMS power output

Load impedance 4 ~ 16 ohms

Input sensitivity and impedance (1 kHz)

PHONO..... 2.5 mV/47 kohms

CD, TAPE PLAY 150 mV/47 kohms

Frequency response (at 1 watt) 10 to 70,000 Hz, +1 dB, -3 dB

Signal to noise ratio (short-circuit, A-network)

PHONO..... 73 dB

CD, TAPE PLAY 95 dB

Controls

BASS ±8 dB at 50 Hz

TREBLE ±8 dB at 10 kHz

LOUDNESS +8 dB at 50 Hz

(VOLUME: -30 dB position) +6 dB at 10 kHz

FM section

Tuning range 88 to 108 MHz

Usable sensitivity

Mono IHF..... 10.8 dBf (1.9 μV: T-100)

50 dB quieting sensitivity

Stereo 37 dBf

Signal to noise ratio (at 65 dBf)

Stereo 70 dB

Distortion (at 65 dBf)

Stereo less than 0.2% at 1,000 Hz

Stereo separation 40 dB at 1,000 Hz

AM section

Tuning range 530 to 1,600 kHz

Usable sensitivity (Loop antenna) .. 52 dB/m (398 μV/m)

Signal to noise ratio..... 45 dB

Others

Power requirements 120/220/240V

50/60 Hz

For U.S.A. and Canada..... 120V (60 Hz)

Power consumption 420 watts 530 VA Rated

Dimensions 448 mm (17-11/16") W

156 mm (6-3/16") H

428 mm (16-7/8") D

Weight..... 14 kg (30.9 lbs) net

16.3 kg (35.9 lbs) packed

* Design and specifications subject to changes without notice for improvements.

* Due to local laws and regulations, this unit sold in some areas is not equipped with variable voltage selector.