

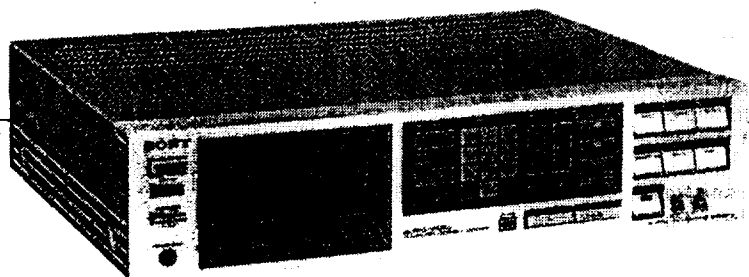
**SONY**

FM STEREO/FM-AM RECEIVER

# STR-VX550

## OPERATING INSTRUCTIONS

Before operating the unit, please read this manual thoroughly.  
This manual should be retained for future reference.



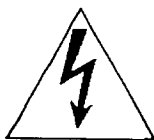
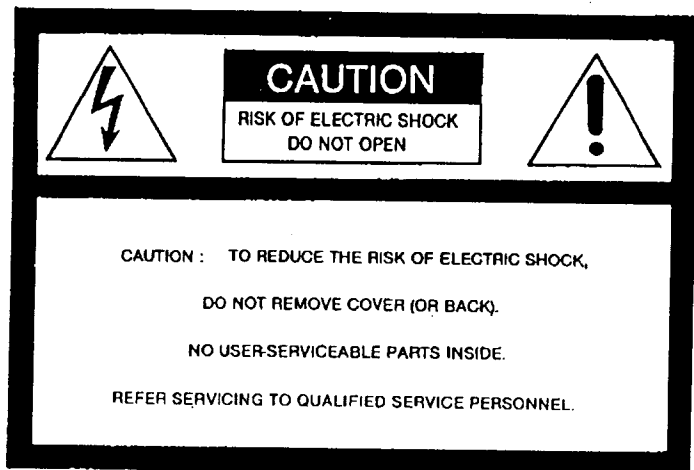
# OWNER'S RECORD

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. STR-VX550                      Serial No. \_\_\_\_\_

## WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## FEATURES

The STR-VX550 is a combined receiver and audio/video control center. Its Direct Access Tuning system makes tuning easier than ever. The receiver employs a quartz-lock digital synthesizer in its state-of-the-art tuner section and a high power output amplifier section which can be used in your home audio-video system.

- Phono amplifier stage, which employs an IC, is carefully designed to improve stereo separation and signal-to-noise ratio.
  - The quartz-lock digital synthesizer system with a sophisticated Phase Locked Loop (PLL) circuit allows extremely precise tuning of FM and AM stations with an electronic digital readout on the frequency display.
- A new IC recently developed by Sony allows a high comparison frequency thus eliminating the tendency for a low comparison frequency, which had been previously generally employed, to slip into the audio range and degrade the signal-to-noise ratio.

- Video tapes can be copied from the video cassette recorder connected to the VIDEO 2 jacks to the video cassette recorder connected to the VIDEO 1 jacks; while video tapes are being copied, other program sources can be enjoyed.
- When copying video tapes, sound can be added to the video tape from another program source (compact disc, cassette tape, record, etc).
- The ASP (Audio Signal Processor) IC developed by Sony can digitally control the tone, filter and volume settings. The ASP IC also permits electronic program source selection. Mechanical controls and switches have been practically eliminated from the front panel. The ASP IC offers greater flexibility — an Acoustic Function, an ability to store and recall two sets of tonal adjustments.
- The volume can be adjusted with the slightest touch of the electronically driven volume control key. When the power is turned on, the volume is set to the minimum level and automatically increased to the previously set level.
- Four methods of tuning are available:
  - Direct access tuning: FM or AM stations can be directly tuned in by inputting the station frequency with the DIRECT ACCESS TUNING keys.
  - Sweep tuning: the FM or AM band is scanned automatically until a signal is received.
  - Memory preset tuning: a desired memorized station can be instantly received by pressing the PRESET TUNING key.
  - Memory scan tuning: the FM or AM stations memorized in the PRESET TUNING keys are scanned to quickly locate the desired station.
- The optional Remote Commander allows you to control all components connected to the receiver from a distance.
- The memorized stations are retained in memory by one lithium battery when the power is turned off. This back-up also allows the last station tuned in to be held in memory.

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# PRECAUTIONS

## On safety

- Operate the unit only on 120 V ac, 60 Hz.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull it out by the cord.
- When there is lightning and you are using an external antenna, immediately disconnect the AC power cord (if connected) from the wall outlet. Never touch the antenna wire when there is lightning storm.

## On installation

- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good air circulation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation. Do not place the unit on a soft surface, such as a rug that would block the ventilation holes on the bottom.
- Do not place anything on top of the cabinet. The top ventilation holes must be unobstructed for the proper operation of the unit and to prolong the life of its components.
- Do allow more than 15 cm (6 inches) of space behind the unit so that the position of the built-in ferrite-bar antenna can be adjusted.

## On operation

- Before making program source connections, be sure to turn the main power off and unplug the unit.
- Do not attempt to test the protection circuits by blocking the ventilation holes or connecting improper loads.
- When the unit is not used, turn the main power off, to conserve energy and to extend the useful life of your unit.

## On cleaning

Clean the cabinet, front and rear panels periodically with a soft dry cloth. If the stains are difficult to remove, use a cloth moistened with mild detergent solution. Do not use solvents such as alcohol, benzine or thinner, since they will damage the finish.

## On repacking

Do not throw away the carton and the packing material. It makes an ideal container to transport the unit in. When shipping the unit for repair work or to another location, repack it as illustrated on the carton box.

## For the customers in the USA

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

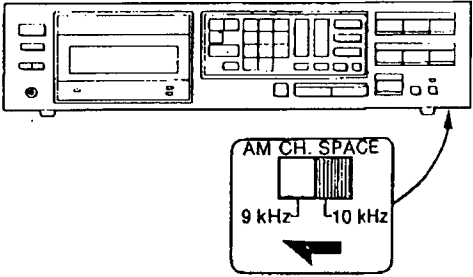
## Note about the AM channel plan selector

This receiver has a two-position AM channel plan selector on the bottom. To tune in AM stations correctly, the selector should be correctly set according to the AM frequency allocation system of your country.

10 kHz : for countries where the frequencies are allocated at intervals of 10 kHz, for example, the USA and Canada.

9 kHz : for countries where the frequencies are allocated at intervals of 9 kHz.

**This selector is factory preset at 10 kHz.** If the AM frequencies are allocated at intervals of 9 kHz in your country, the selector should be set to 9 kHz. **Be sure to turn off the power before changing the position of the selector.**



## Notes

- If the selector is set incorrectly, you cannot turn in AM stations properly.
- When the selector is changed, the preset frequencies and the last station memory will be erased. In this case, memorize the frequencies again.

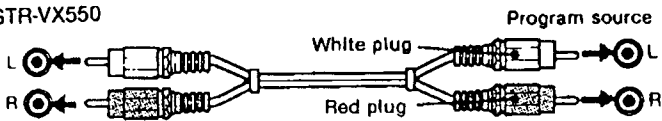
SYSTEM CONNECTIONS

CONNECTION NOTES

- The power cord should be connected last of all, first making sure that the MAIN POWER switch is released (OFF).
- When connecting program sources or tape recorders, note that the red jacks of the receiver are for right-channel connections and the white jacks for left-channel connections.

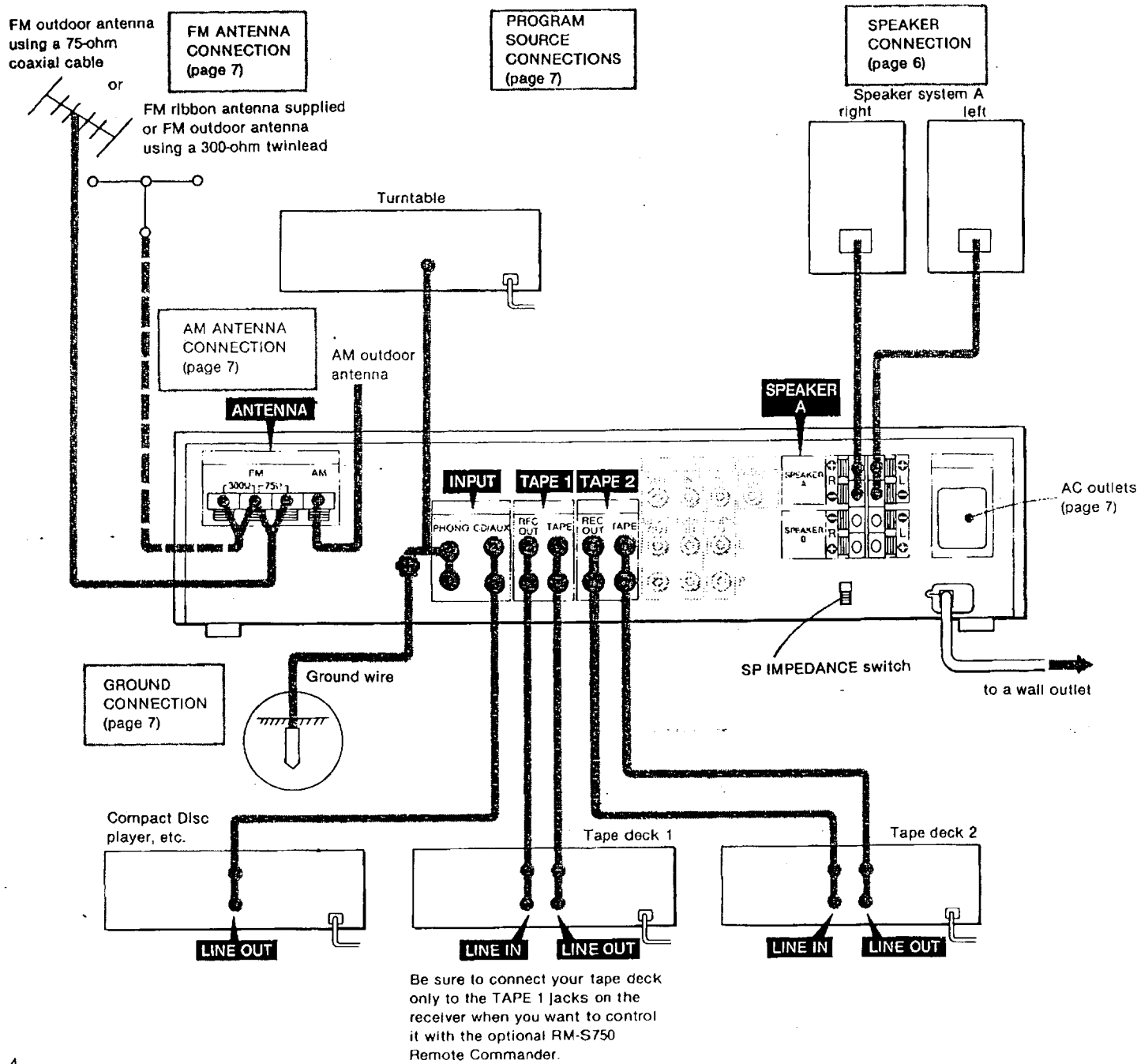
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Since there is a variety of cord—such as speaker cord, power cord, connecting cord—around the rear panel terminals, you should maintain a moderate separation between the bar antenna and the cords. This is because the receiver may produce a noise from the direct touch of the cords on the bar antenna.

STR-VX550

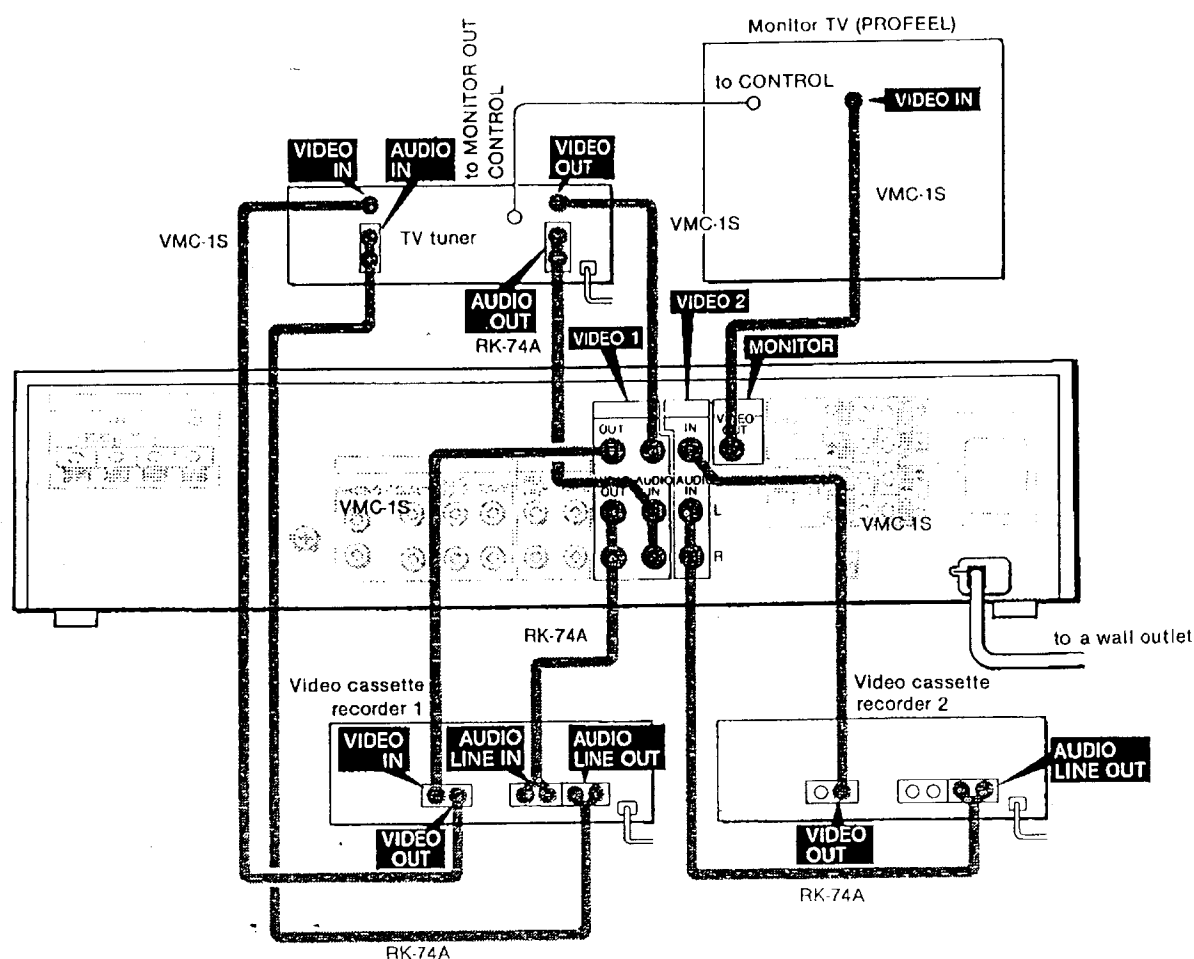


CONNECTION DIAGRAM

Antenna, speaker and audio system connections



## Video connection



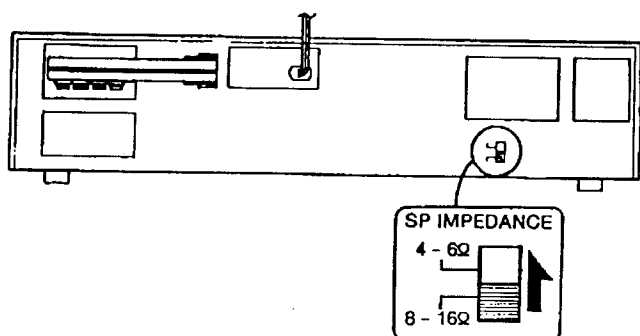
**Notes :**

- For connections of TV tuner and monitor TV, refer to the instruction manual of the video cassette recorder.
- For connection of conventional TV to the video cassette recorder, refer to the instruction manual of the video cassette recorder. When the TV tuner is not connected, connect the video cassette recorder directly to the receiver.
- Be sure to use the connecting cords supplied to each equipment or the ones indicated in the illustration above.
- If the video cassette recorder 1 in the above connecting diagram is monaural, it may not be possible to record the TV program being received on the TV receiver of the video cassette recorder 1. In such a case, disconnect the connecting cords from the AUDIO LINE IN and VIDEO IN jacks of the video cassette recorder 1.

## SPEAKER CONNECTION

This receiver has provision for two pairs of speaker systems—system A and system B—which can be selected individually or simultaneously by means of the front panel SPEAKERS switches. Note that the speaker systems A and B are parallel connected. Before turning on the receiver, set the SP IMPEDANCE switch at the rear to the appropriate position according to the impedance of the speaker systems connected and the following cautions should be observed.

- When one pair of speaker systems has an impedance of 4 - 6 ohms, set the SP IMPEDANCE switch to the 4 - 6  $\Omega$  position.
- When two pairs of speaker systems are connected and one has an impedance of 4 ohms, do not depress the SPEAKERS A and B switches simultaneously.
- When both pairs of speaker systems have an impedance of 8 ohms or more, both SPEAKERS switches can be depressed at the same time and both speaker systems can be driven simultaneously.



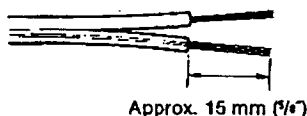
### Speaker power capacity

This receiver is rated at 50 watts minimum RMS per channel with an 4 or 8-ohm load from 20 - 20,000 Hz and may deliver an instantaneous peak power much greater than the rated power. Be sure to use speakers with adequate power handling capabilities.

### Connecting speaker cord to the receiver

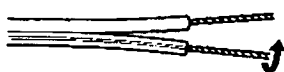
Connect each speaker to the corresponding receiver speaker terminals, i.e. right speaker to the [R] speaker terminals and left speaker to the [L] speaker terminals.

- 1 Strip approx. 15 mm ( $\frac{5}{8}$ " ) of outer covering from the speaker cord.



Approx. 15 mm ( $\frac{5}{8}$ " )

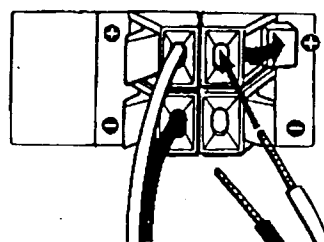
- 2 Twist the wire ends for easy insertion.



Twist tightly.

- 3 Depress the terminal button as illustrated and fully insert the twisted wires into the slot. Then release the button.

Note that the colored or marked lead of a speaker cord goes to the  $\oplus$  terminal and the remaining one to the  $\ominus$  terminal, to avoid making any incorrect connections.



- 4 After these procedures are completed, pull on the speaker cord lightly to see if the connection is secure.

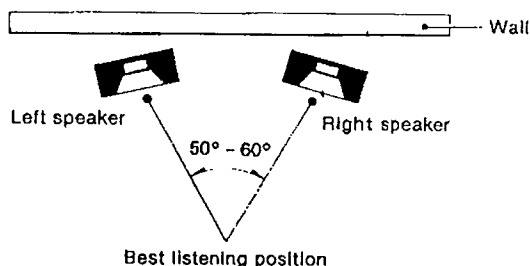
### Speaker phasing

Correct  $\oplus \ominus$  connection of both paired speakers insures proper in-phase operation. If the speaker system is out-of phase, the bass tones seem to be missing and the position of the instruments becomes obscure.

### Speaker placement

The distance between speakers, or the speakers and a listener depends mainly on the room size. Generally it is recommended that the speaker/listener relationship be an equilateral triangle configuration (as illustrated).

If the speaker separation is too wide, an undesirable "hole in the middle" effect occurs.



Place the right and left speakers in similar acoustic environments, otherwise you will obtain unbalanced sound. For example, placing one speaker near an open door or archway will decrease the apparent bass from that speaker.

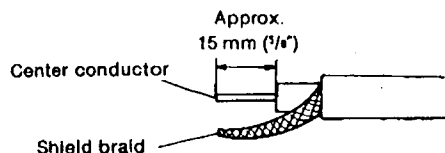
Best sound is usually obtained in a room with carpeting on the floor, heavy draperies and upholstered furniture. Since each room has its own individual acoustic characteristic, which is a function of its size, construction and furnishing, some experimentation with speaker placement is generally necessary before the correct balance of stereo image and bass response is obtained. This will be time well spent, resulting in your enjoyment of the maximum capabilities of your music system.

## FM ANTENNA CONNECTION

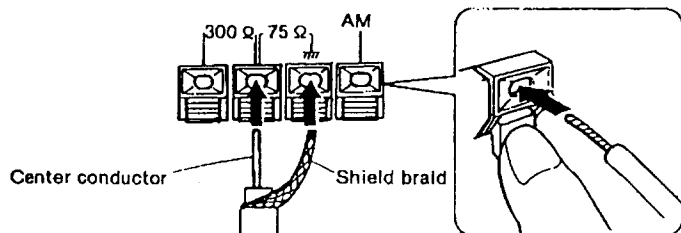
The receiver accepts either 300-ohm twinlead or 75-ohm coaxial cable. Standard 300-ohm twinlead is inexpensive but susceptible to the pickup of extraneous noise. 75-ohm coaxial cable is free from external interference, reduces noise pickup, and is the ideal transmission line for most FM installation.

### 75-ohm coaxial cable connection

- 1 Cut and remove the outer and inner covering as shown and twist the shield braid and the conductor.

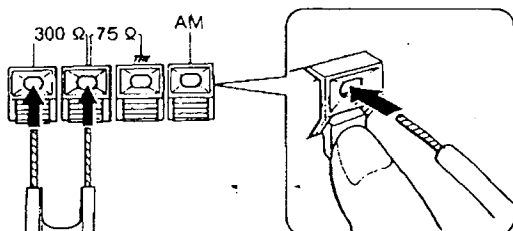


- 2 Connect the conductor and shield braid as illustrated.



- 3 Pull the cable lightly to make sure the connection is secure.

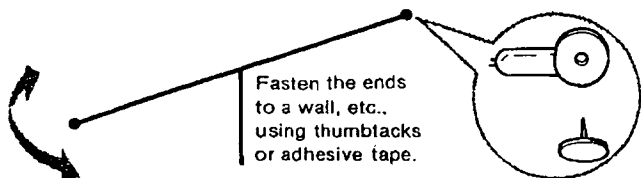
### 300-ohm twinlead connection



To route the twinlead over the roof or outerwall, use stand-off insulators. Keep the lead as short as possible and avoid running parallel to other wires or metal pipes.

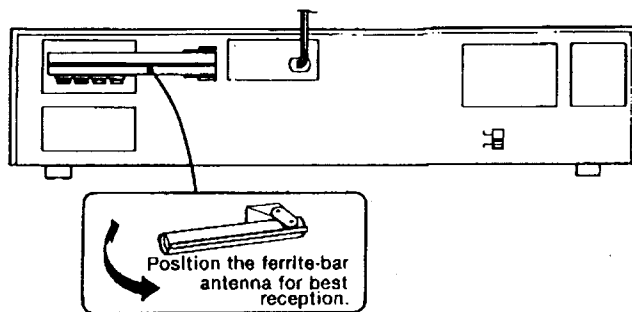
### Ribbon antenna supplied

Until you install a suitable outdoor antenna, the supplied ribbon antenna may be useful. Connect it to the 300-ohm antenna terminals. For optimum reception, fully extend the antenna and position it for the best reception.



## AM ANTENNA CONNECTION

In most areas, the built-in ferrite-bar antenna will provide satisfactory reception. In difficult reception areas, it may be necessary to connect a length of insulated wire 6 - 15 meters (20 - 50 feet) long to the AM ANTENNA terminal. Extend this out of doors if possible, keeping the greater portion horizontal.



## PROGRAM SOURCE CONNECTIONS

### Record player

The PHONO inputs accept a typical moving-magnet (MM) cartridge.

### Tape recorder

The two pairs of tape recorder jacks are provided to connect a tape deck: TAPE for playing back a tape, and REC OUT for recording.

### Video cassette recorder

The two pairs of VIDEO inputs are provided for the connection of two video cassette recorders (one for playback only), and Hi-Fi stereo video sound can be heard.

### Other input sources

The CD/AUX inputs are provided for connecting various input sources such as a Compact Disc player, a tape recorder (for playback only), an additional tuner, or a record player equipped with a ceramic cartridge.

(The CD/AUX, VIDEO 1, 2 and TAPE Inputs are identical in sensitivity and input impedance.)

## GROUND CONNECTION

When an outdoor antenna is installed, the direct connection of the ground terminal [⚡] to a good ground is recommended for lightning protection. The use of a lightning arrester is recommended for any outdoor antenna.

To prevent hum, be sure to connect the ground wire of the record player to the ground terminal. If hum still exists, it may be helpful to connect the ground terminal directly to earth via a ground rod or other good ground, such as a clamp on a cold water pipe.

## AC OUTLETS

Receptacles on the rear panel provide a convenient source of ac power for other system components.

The SWITCHED outlets are controlled by the front panel MAIN POWER and SYSTEM POWER switches and can supply total ac power up to 100 watts.

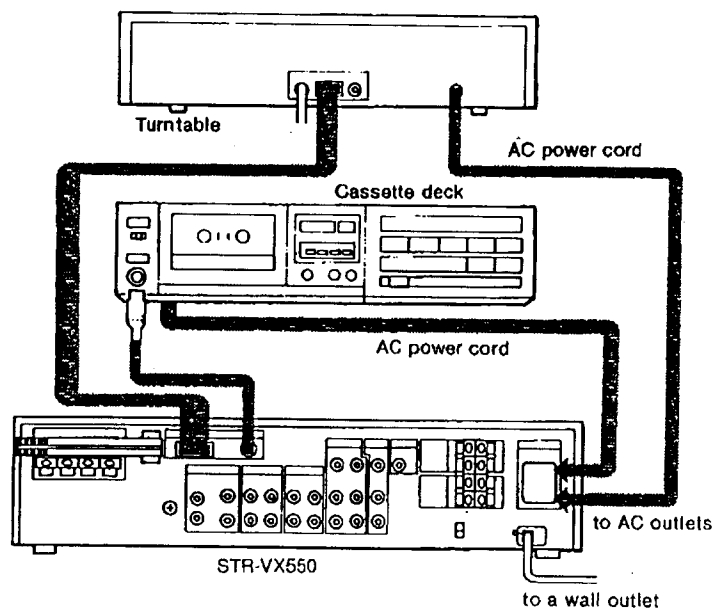
**Note:** Never run electrical home appliances such as an electric iron, fan, TV or video cassette recorder from these outlets.

## REMOTE CONTROL CORD CONNECTION

Control signals from the optional Remote Commander RM-S750 in the form of infrared rays are received by the remote sensor provided on the front panel of the receiver. The control signals should be delivered to all components through the supplied cords.

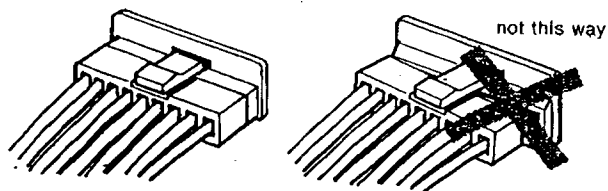
Connect the remote control cords as illustrated below. The ac power cords of the turntable and the cassette deck should be connected to the AC outlets of the STR-VX550.

For remote control operation, see page 17.

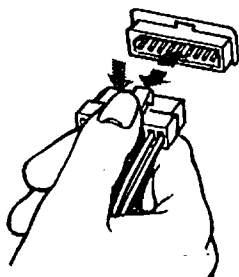


### Notes

- Insert the cords firmly by depressing the small tab on the plug. A loose connection may cause faulty operation of the remote control.



- To remove the cord from the connector, depress the small tab on the plug and pull it out. Never pull out the plug forcibly.



- Insert the connector positioning it correctly.

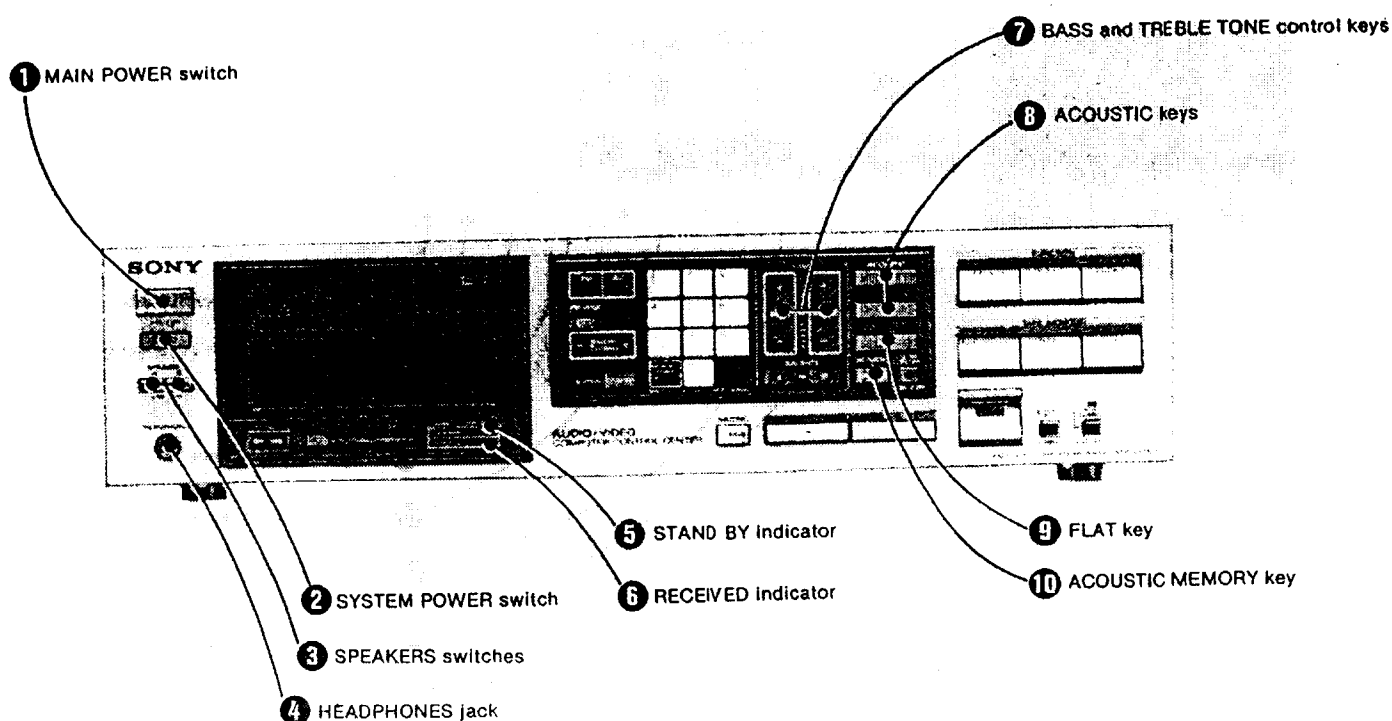




## LOCATION AND FUNCTION OF CONTROLS

Before plugging in or attempting to operate this receiver, it is suggested that you familiarize yourself with all its switches and the purpose of each. Each number in the photo is keyed to the descriptive text.

### Amplifier section



#### 1 MAIN POWER switch

Depress this switch ( $\Delta$  ON) to turn the mains power on (the STAND BY indicator lights up). If the power has not been turned on, even if you press the SYSTEM POWER switch, you cannot turn the receiver and connected components on or operate them with the optional Remote Commander RM-S750.

#### 2 SYSTEM POWER switch

Press this switch to turn the receiver and connected components on and off. You can operate the switch from a distance with the Remote Commander.

#### 3 SPEAKERS switches

To drive speaker system A, depress the A switch.  
To drive speaker system B, depress the B switch.  
To drive both speaker systems A and B which have an impedance of 8 ohms or more, depress both A and B switches. See page 6.

#### 4 HEADPHONES jack

Accepts any low or high impedance stereo headphones.  
For headphone monitoring only keep the SPEAKERS switches released ( $\square$  OFF).

#### 5 STAND BY Indicator

When the MAIN POWER switch is depressed, this indicator lights up.

#### 6 RECEIVED indicator

When the signals from the Remote Commander are received, this indicator will blink.

#### 7 BASS and TREBLE TONE control keys

BASS and TREBLE TONE control keys control the bass and treble response.

Pressing the + side will increase the response and pressing the - side will decrease the response.

#### 8 ACOUSTIC keys

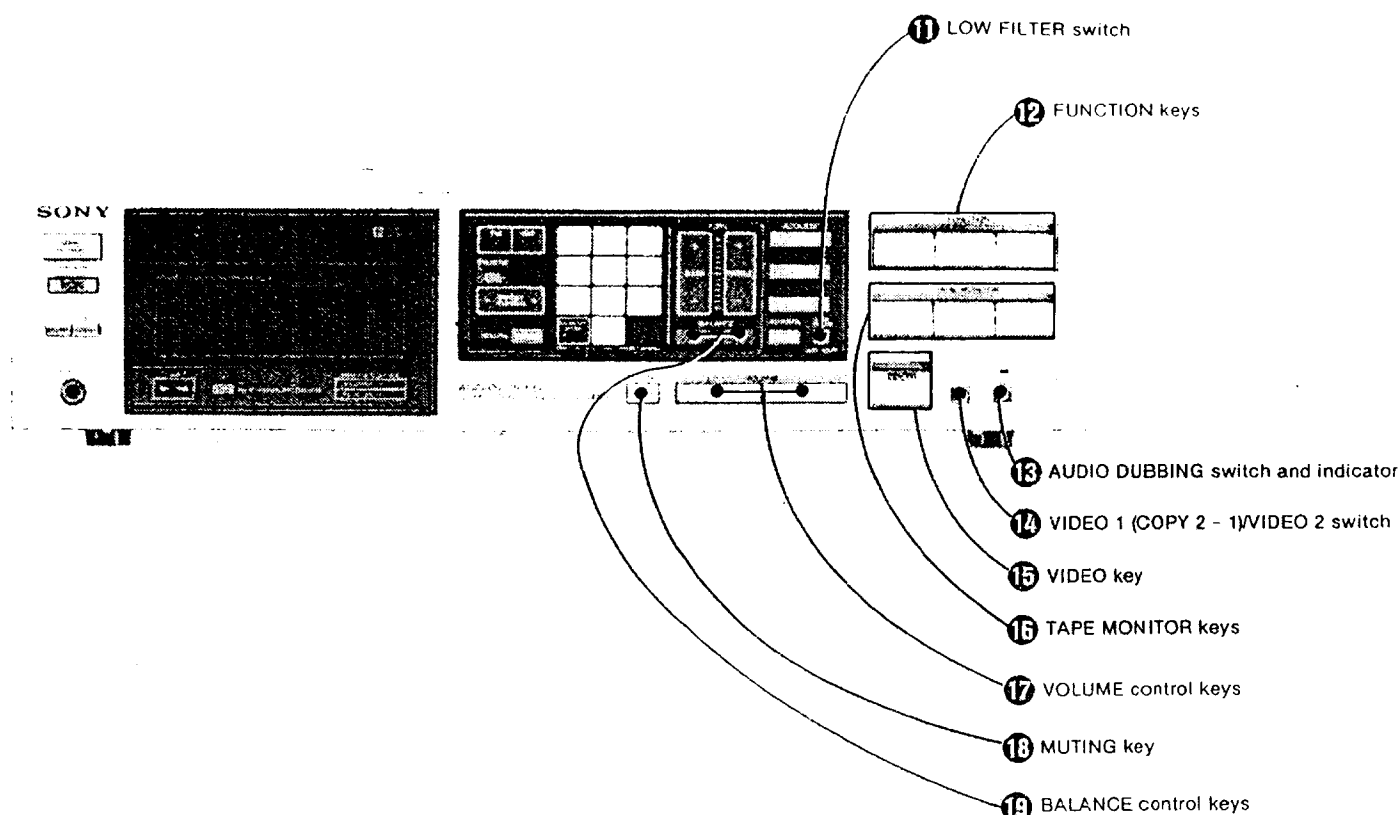
Press the ACOUSTIC MEMORY key and press either ACOUSTIC 1 or 2 key to store the acoustic settings. Once set, you can recall these acoustic settings instantly.

#### 9 FLAT key

Use the FLAT key to disengage the settings recalled by the acoustic function or the normal tonal settings. When the FLAT key is pressed, flat frequency response results.

#### 10 ACOUSTIC MEMORY key

When this key is pressed, the MEMORY indicator will light up and the receiver is ready for acoustic setting.



#### ⑪ LOW FILTER switch

If subsonic noise components created by warped records, etc. are present, the audible range frequencies may be modulated and cause irritating intermodulation distortion. In this case, depress this switch to reduce unwanted noise components in the program source. The filter will cut off any input signals below 15 Hz at a 6 dB-per-octave rate. Depress this switch again to disengage it.

#### ⑫ FUNCTION keys

Press one of these keys to select a desired program source other than a taped program.

PHONO: For record programs (connected to PHONO inputs)

TUNER: To call back the last received station.

CD/AUX: For compact disc or auxiliary programs (connected to CD/AUX inputs)

#### ⑬ AUDIO DUBBING switch and indicator

Depress this switch to add the required sound selected with the FUNCTION key or the TAPE MONITOR key to the video tape while copying from video cassette recorder 2 to video cassette recorder 1. When this switch is set to ON, the indicator above the switch lights.

#### ⑭ VIDEO 1 (COPY 2 → 1)/VIDEO 2 switch

When you want to play video cassettes, select the video cassette recorder to be used for playback.

If you have two video cassette recorders, copying from video cassette recorder 2 to video cassette recorder 1 is possible with this switch released.

#### ⑮ VIDEO key

Press this key to listen to the video sound.

#### ⑯ TAPE MONITOR keys

To listen to a taped program, press the TAPE 1 or TAPE 2 key. The indication—TAPE 1 or TAPE 2 on the frequency/function display—will light up, indicating that a playback output from the tape recorder connected to the TAPE 1 or TAPE 2 jacks can be heard.

To dub from tape recorder 1 to tape recorder 2, press the TAPE COPY 1 → 2 key.

Press the corresponding key to disconnect the tape recorder or to stop tape copying.

#### ⑰ VOLUME control keys

Regulate the overall sound level. Press (+) side to increase the sound level, and (-) side to decrease it.

When the VOLUME control key is pressed, the frequency/function display window shows the VOLUME indicator and attenuation level instead of the frequency or function. While the attenuation level is indicated in the frequency/function display window, do not press any key.

#### ⑱ MUTING key

When the MUTING key is pressed, the MUTING indicator will light up and the overall listening sound level is reduced by 20 dB. When the key is pressed again, you can restore exactly the same listening level as before.

This feature is useful when you lower the tonearm onto the record or when you answer the telephone.

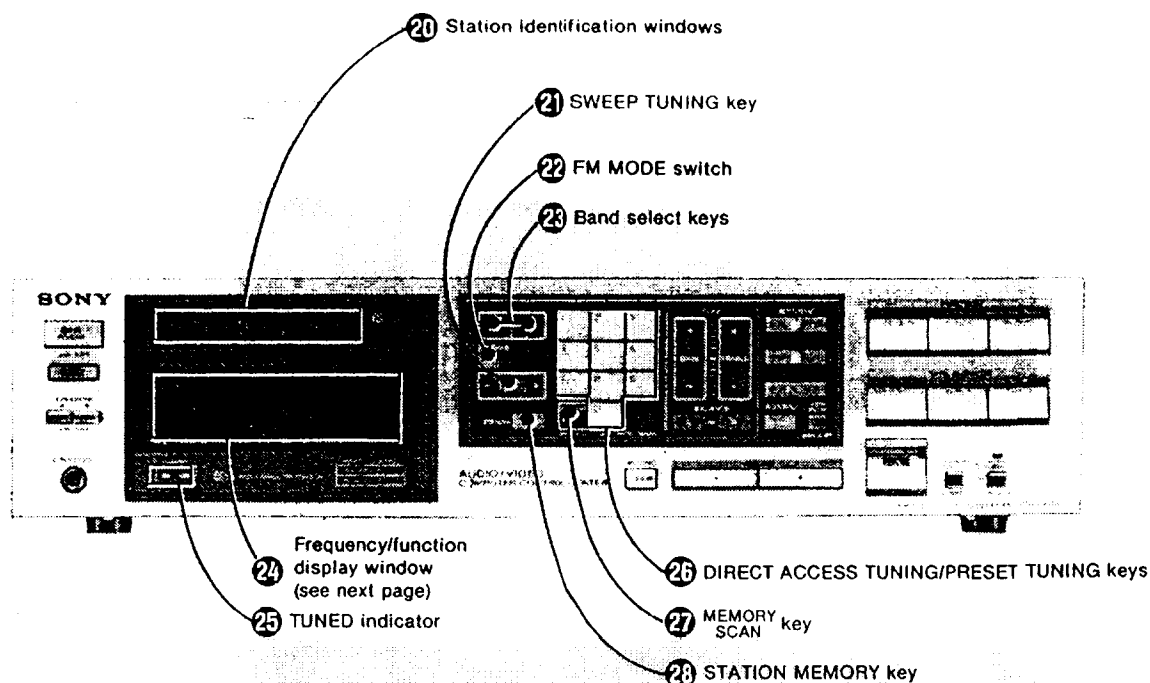
#### ⑲ BALANCE control keys

Governs the amount of sound coming from each paired speaker to get optimum stereo effect.

Pressing the R key will decrease the left channel volume, and pressing the L key will decrease the right channel volume.

When the BALANCE control key is pressed, the frequency/function display window shows the BALANCE indicator instead of the VOLUME indicator.

## Tuner section



### 20 Station identification windows

Station labels (supplied) identifying memorized stations can be placed in these windows.

### 21 SWEEP TUNING key

Press either side of this key to scan the frequency.  
Press the left side [-] to go to a lower frequency and the right side [+] to go to a higher.  
When the received signal is the desired one, press the STATION MEMORY key to stop scanning.  
For details, refer to page 14.

### 22 FM MODE switch

During FM reception, when a stereo signal of sufficient strength is received, the receiver operates in the stereo mode. (The STEREO indicator will illuminate.)  
When you want to tune in a very weak FM station, or when an FM program is too noisy, press this switch. (The STEREO indicator illumination will go out.) Press it again to return to the stereo mode. The mode will automatically return to the stereo mode when the frequency is changed.

### 23 Band select keys

Press the appropriate key to select the desired band: FM or AM.

## ④ Frequency/function display window

### STEREO Indicator

Lights up when an FM stereo program of sufficient signal strength is tuned in with the FM MODE key engaged.

### ACOUSTIC Indicator

Indicates the acoustic memory channel being used.

### MEMORY Indicator

Lights up when you press the STATION MEMORY key or ACOUSTIC MEMORY key.

### TONE Indicator

A straight bar graph indicates a flat frequency response. Bars move up and down, depending on the tone control settings, graphically showing the tone control characteristics.

### TAPE MONITOR indicators

Corresponding indicator lights up when the TAPE MONITOR key is operated.

Station band being selected

Frequency being received

### MUTING Indicator

Lights up when you press the MUTING key.

The PRESET TUNING key at which the frequency is memorized.



Volume attenuation level

### VOLUME indicator

The volume is displayed by the vertical bar graphs. The bars move toward the right as the volume increases.



Program in use

### BALANCE Indicator

When you press either of the BALANCE control keys, the VOLUME indicator disappears and BALANCE indicator appears. Parallel bars move between the L and the R when either of the BALANCE control keys is pressed. A few seconds after you stop pressing the BALANCE control key the display automatically changes to the VOLUME indicator.

### ⑤ TUNED indicator

During FM or AM reception, this indicator lights when a marginal station is received. In direct access tuning, the indicator may not light if the signal is very weak.

### ⑥ DIRECT ACCESS TUNING/PRESET TUNING keys

Press the key according to the following desired purposes. The pressed figures will be displayed on the frequency/function display window.

#### Direct access tuning (the 1 to 0 keys serve as DIRECT ACCESS TUNING keys)

To tune in the frequency directly, press the band select key and the DIRECT ACCESS keys.

### Memory tuning (the 1 to 0 keys serve as PRESET TUNING keys)

To call up a memorized station, press the appropriate key.

### ⑦ MEMORY SCAN key

Press for automatic scanning of the stations memorized on the PRESET TUNING keys. For details, refer to page 15.

### ⑧ STATION MEMORY key

Press to operate memory circuit. The MEMORY indicator will appear on the frequency/function display window for a few seconds indicating that the memory circuit is standing by.

PREPARATION

Before proceeding to any type of operation, set the controls and switches as follows.

MAIN POWER and SYSTEM POWER: off  
SPEAKERS: speaker-connected position  
LOW FILTER: ☐ OFF

MAIN POWER and SYSTEM POWER: on  
VOLUME: about -60 dB  
(to avoid a sound burst)  
BALANCE: center  
BASS, TREBLE TONE: flat  
VIDEO 1 (COPY 2 → 1)/VIDEO 2: VIDEO 1  
TAPE MONITOR: off

BROADCAST RECEPTION

This receiver incorporates the following tuning systems which give the listener a choice of four ways in which to tune in the desired broadcast.

- Direct access tuning
- If you know the frequency of the station to be received, you can tune in the station easily by this system.
- Sweep tuning
- This system is convenient for receiving a station whose frequency has not been memorized, or to see what kind of programs are on the air.
- Memory preset tuning
- Once you program the frequencies into the memory, all you need do to tune in a station is to press the appropriate key.
- Memory scan tuning
- The memorized stations can be scanned for a few seconds each. In this way, you can find your favorite station quickly.

DIRECT ACCESS TUNING

Follow the numbered sequence.

1 Turn on the power.

2 Press to select the desired band: FM or AM. ("0" indicator blinks.)

4 Adjust the volume and sound quality

3 Pressing the DIRECT ACCESS TUNING key input the frequency of the station to be received.

Example 1: FM 108.00 MHz  
blinking

FM 0 MHz

FM 10 MHz

FM 100 MHz

FM 108.0 MHz

FM 108.00 MHz

FM 108.00 MHz

1

0

8

0

0

Example 2: AM 1350 kHz  
(with AM channel plan selector set to 10 kHz)  
blinking

AM 0 kHz

AM 10 kHz

AM 130 kHz

AM 1350 kHz

1

3

5

The "0" will appear automatically.

You can now hear the station whose frequency you have just input.

#### Notes on the AM direct access tuning

- If the AM channel plan selector is set to 10 kHz, the last digit "0" of the frequency will be automatically set when the first two or three digits are input.
- If the AM channel plan selector is set to 9 kHz, input the frequency to the last digit.

#### When the wrong frequency is input

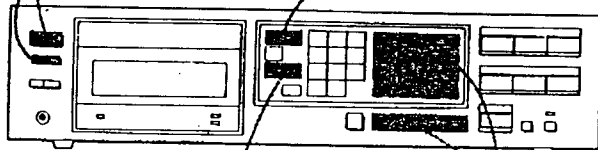
- If you mistakenly press a wrong figure, press the appropriate band select key again and input the correct frequency.
- If you input a frequency outside the receiver's frequency range (FM: 87.5 to 108 MHz, AM: 530 to 1,610 kHz), the figures will flash on and off in the frequency/function display. In this case, press the appropriate band select key and input the proper frequency.

#### SWEEP TUNING

Follow the numbered sequence.

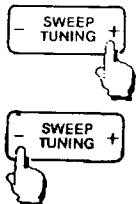
1 Turn on the power.

2 Press to select the desired band :  
FM or AM.  
("0" indicator blinks.)



4 Adjust the volume and  
sound quality.

3 Press the "+" or "-" side of the SWEEP TUNING key to start automatic frequency scanning. There is no need to keep the key pressed.



for higher frequencies

for lower frequencies

The frequency figures will change rapidly and stop when a signal is received.

To stop the sweep tuning, press the STATION MEMORY key.

If the signal strength is weak, the frequency display figures will not stop at the desired frequency. When this happens, adjust the antenna for optimum reception. If the signal strength is still too weak for sweep tuning, tune in the station as described in "DIRECT ACCESS TUNING".

When the frequency figures reach the end of the tuning range of each band, the frequency will then be scanned from the opposite end of the tuning range.

#### MEMORY PRESET TUNING

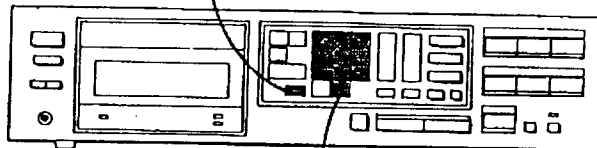
A total of ten FM or AM stations or a combination of both can be preset in any sequence.

#### To memorize station frequencies

To memorize a station, first tune in the station, then follow the numbered sequence.

1 Press the STATION MEMORY key.

The MEMORY indicator will appear on the frequency/function display, indicating that the memory circuit is ready for storing the data.



2 While the MEMORY indicator is displayed, press the desired PRESET TUNING key (1 - 0).

FM 87.50 MHz 2



Repeat these steps for each PRESET TUNING key.

Replace the station labels to conform to the selected memorized stations. See "STATION LABEL INSERTION" on page 15.

#### Notes

- The MEMORY indicator will go off automatically after a few seconds. When the indicator is out, the memory circuit does not operate to memorize the station.
- The previous memory will be erased when a new frequency is programmed in the memory of the same key. An erasure cannot be made without a new input.

#### To receive a memorized station

Turn the power on and simply press the desired PRESET TUNING key.

#### Memory of the last received station

This receiver includes a memory circuit, which is backed up by the battery, to remember the station which had been received for more than one second just before the power was turned off or the function is changed. This station will be automatically tuned in when the power is turned on again and the TUNER function key is pressed again.

### MEMORY SCAN TUNING

The **MEMORY SCAN** key allows you to quickly hear what kind of programs are being broadcast by the memorized stations.

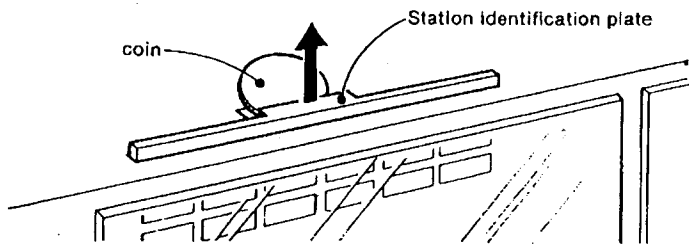
When you press the **MEMORY SCAN** key, the stations stored in memories are automatically received in order from 1 for about 4 seconds.

Pressing a particular station **PRESET TUNING** key stops the scanning.

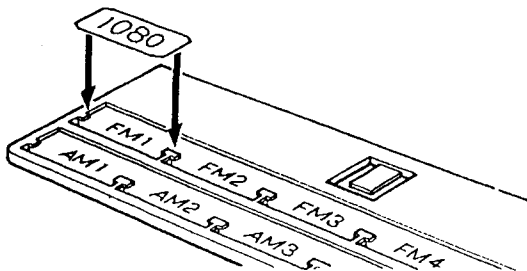
### STATION LABEL INSERTION

Station labels are supplied for identification of the preset stations. Affix the labels as follows:

- 1 Pull out the station identification plate from the cutout with a coin or similar object.



- 2 Pick out the appropriate labels for the memorized stations and affix them to the plate as shown, in the correct order.



- 3 Replace the plate.

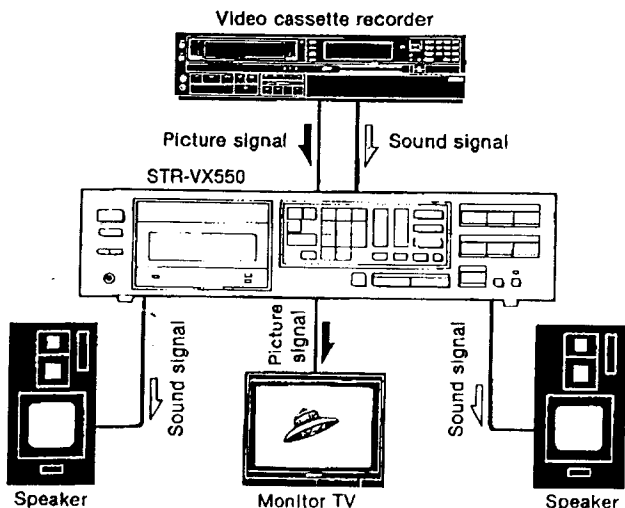
Check that the station labels match the memorized stations by tuning in to each station.

### VIDEO OPERATION

With this receiver, the following video operations are possible. These features can expand your audio and video enjoyment. For connection, see page 5.

#### VIDEO PLAYBACK

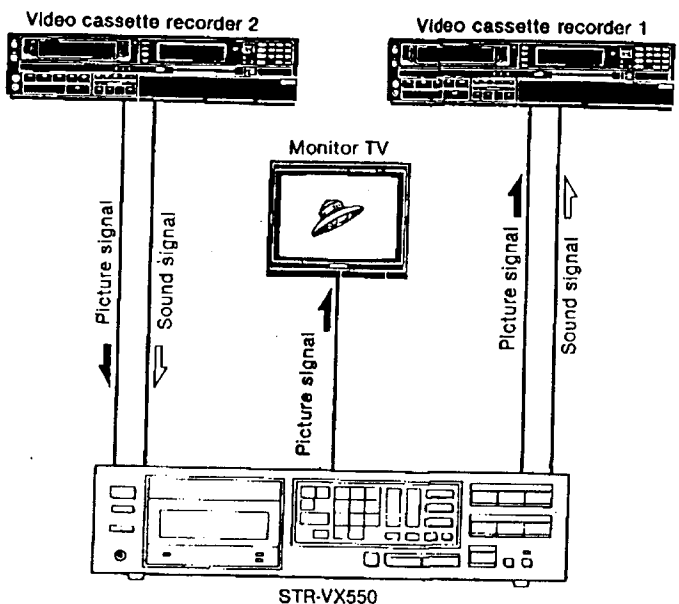
- 1 Press the **VIDEO** key. The receiver is now set to the video mode.
- 2 Select the video cassette recorder to be used for playback with the **VIDEO 1 (COPY 2 → 1)/VIDEO 2** switch.
- 3 Turn the monitor TV on.
- 4 Play the video cassette recorder.
- 5 Adjust the volume and sound quality to your preference.



### VIDEO COPYING

When two video cassette recorders are connected to the receiver, you can copy from video cassette recorder 2 to video cassette recorder 1. Copying from video cassette recorder 1 to video cassette recorder 2 is not possible.

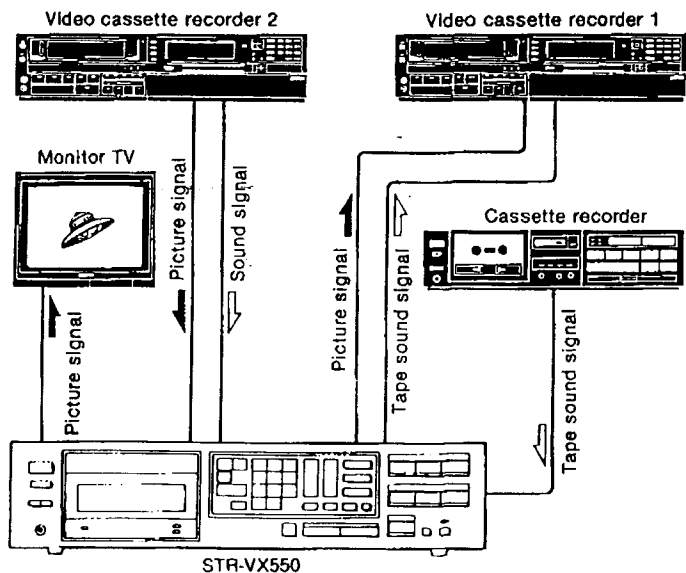
- 1 Release the **VIDEO 1 (COPY 2 → 1)/VIDEO 2** switch.
- 2 Start playback of video cassette recorder 2 and recording of video cassette recorder 1. Copying will begin. (During copying, you can enjoy other program sources.)



### ADDING ANY REQUIRED SOUND TO THE VIDEO TAPE WHILE COPYING—Audio Dubbing—

During video tape copying, you can add sound from a tape deck or music from a turntable. With this feature, you can make your own personalized video tape.

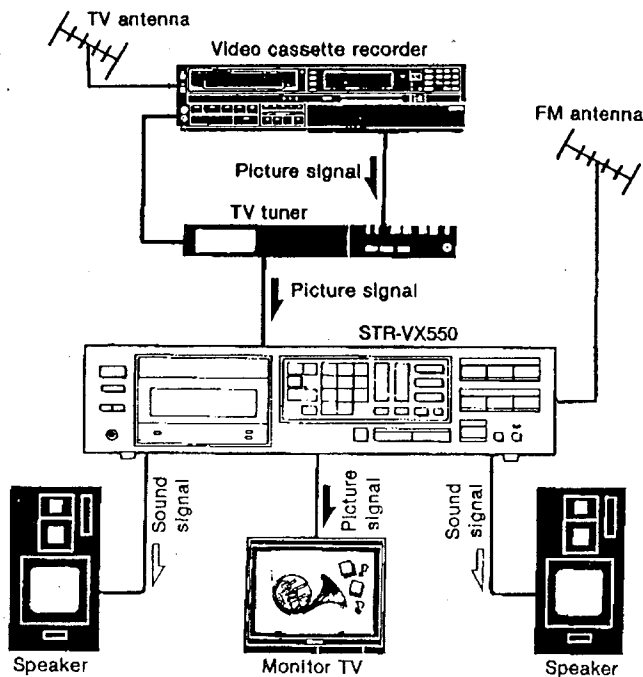
- 1 Release the **VIDEO 1 (COPY 2 → 1)/VIDEO 2** switch.
- 2 Depress the **AUDIO DUBBING** switch. The indicator above the switch lights. If the **VIDEO 1 (COPY 2 → 1)/VIDEO 2** switch is not released, the indicator will not light.
- 3 Select the program source to be added with the **FUNCTION** keys, or **TAPE COPY** and **TAPE 1** keys. The sound from tape deck connected to **TAPE 2** Inputs cannot be added.
- 4 Start playback of video cassette recorder 2 and recording of video cassette recorder 1 and play the program source to be added. Copying will begin and program source sound is added to the video tape.



**VIEWING THE TV PICTURE WHILE RECEIVING FM SIMULCAST TV PROGRAM**

When a monitor TV and a video cassette recorder or a TV tuner are connected to this receiver, you can receive FM simulcast TV programs (stereo TV sound transmitted from an FM radio station) while viewing the TV program.

- 1 Turn the monitor TV on.
- 2 Select the desired TV program with the video cassette recorder or the TV tuner.
- 3 Set the VIDEO 1 (COPY 2 → 1)/VIDEO 2 switch according to the video cassette recorder used.
- 4 Press the TUNER key.
- 5 On the receiver, tune in the FM simulcast TV program.
- 6 Adjust the volume and sound quality to your preference.



**OTHER OPERATING INSTRUCTIONS**

**REPRODUCTION OF PHONO, CD/AUX AND TAPE PROGRAM SOURCES**

Once you familiarize yourself with the operation of FM/AM reception, you can listen to other program sources as follows :

- 1 Set the controls and switches at the initial setting position. (See page 13.)
- 2 Select the desired program source as required by using the TAPE MONITOR and FUNCTION keys.

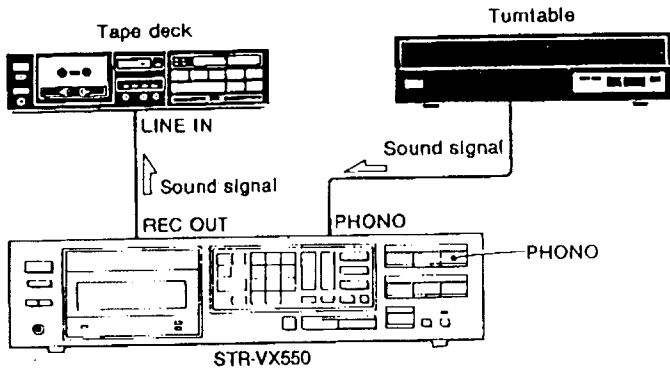
Pr. gram	TAPE 1/TAPE 2 key	FUNCTION keys
Record playing	Disengage	Press PHONO
Auxiliary source		Press CD/AUX
Taped program	Press	Any

- 3 Play the program source.
- 4 Adjust the sound quality to your preference.

The TAPE MONITOR key has priority over the FUNCTION keys. If the TAPE 1 or TAPE 2 key is pressed, you cannot listen to the program source selected by the FUNCTION keys.

**TAPE RECORDING**

- 1 Select the program to be recorded with the FUNCTION keys.
- 2 Disengage the TAPE MONITOR keys.
- 3 Adjust the recording level.
- 4 Start recording.



**Note :** The VOLUME, BASS, TREBLE and BALANCE keys have no effect upon the recording.

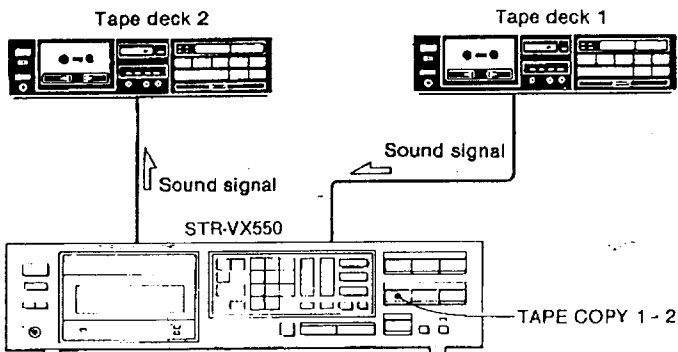
**Monitoring of a 3-head tape recorder**

If your tape recorder has separate record and playback heads, you can monitor the recording results. Press the TAPE 1 or TAPE 2 key to monitor the recording results. Press the TAPE 1 or TAPE 2 key again to release it, and the source sound will be heard. Be sure to keep the monitor switch of the tape recorder in the TAPE position.

**TO COPY**

If you have two tape recorders, you can copy a taped program from tape recorder 1 (connected to TAPE 1 TAPE inputs) to tape recorder 2 (connected to TAPE 2 REC OUT outputs). Tape copy from tape recorder 2 to tape recorder 1 cannot be made.

- 1 Insert the recorded tape into the tape recorder 1 and a blank tape into the tape recorder 2.
- 2 Press the TAPE COPY 1 → 2 key.
- 3 Adjust the recording level of tape recorder 2. Start the playback of tape recorder 1 and the recording of tape recorder 2. Copying will begin.



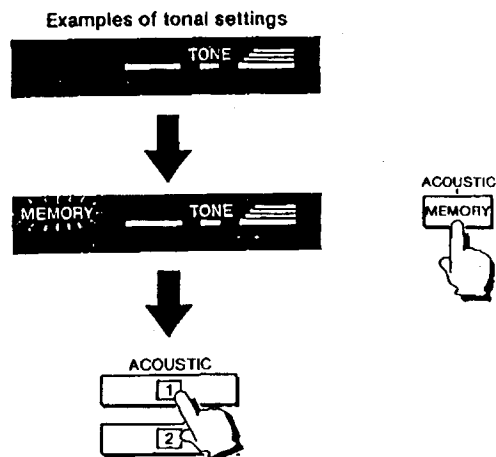


## TO SET THE ACOUSTIC SETTINGS

### —Acoustic Function—

This receiver can store and recall the acoustic setting—tone control (BASS and TREBLE TONE) used, thus instantly providing a choice of two different acoustic settings. These settings may be based upon the preferences of two individual users of the system, or the speaker system in use, or the type of music being listened to, etc.

- 1 Adjust the tonal quality to your preference.
  - 2 Press the ACOUSTIC MEMORY key. The MEMORY indicator will come on, during which time you should press either the ACOUSTIC 1 or 2 key.
- Now one of the two acoustic settings is committed to memory.



#### Q. How can I check the acoustic setting?

A. Once the setting is set, press the FLAT key. All the acoustic settings are disengaged and a flat frequency response results. Then press the ACOUSTIC key which you committed to memory, so that the original settings will be recalled. Now compare the effect of the settings with the flat frequency response.

#### Q. How can I change temporarily a part of the acoustic settings?

A. Simply change the part of the acoustic setting you want. You can recall the original settings later by pressing the ACOUSTIC key.

#### Q. How can I change all the acoustic settings?

A. Simply set the new acoustic settings as you like and memorize them as described before.

#### Q. If I turn the receiver off, are the acoustic settings cancelled?

A. No. This receiver, with its lithium battery, retains the contents of the memory even when the power is off, and recalls them whenever you want.

## REMOTE CONTROL OPERATION WITH AN OPTIONAL REMOTE COMMANDER

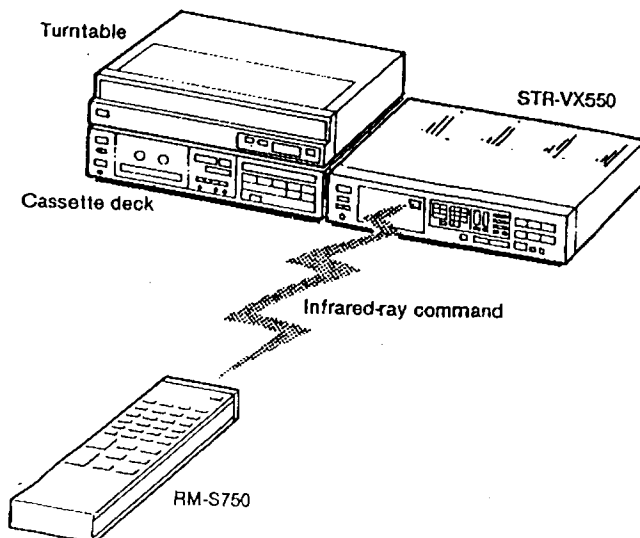
Using the optional Remote Commander RM-S750, you can remote control power on/off, direct access/preset tuning, memory scanning, program selection, muting on/off and volume adjustment of this receiver and various functions of connected components.

Sony equipment which can be remotely controlled with the RM-S750:

Turntables: PS-FL1/FL1C, PS-FL3/FL3C, PS-LX500/LX500C,

Cassette decks: models equipped with 4-pin or 5-pin remote control connector.

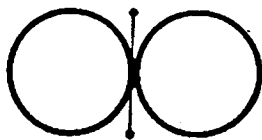
**Note:** Before operation, be sure to perform the system connections and the remote control cord connection correctly. (See pages 4 and 8.)



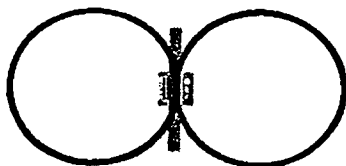
## FM ANTENNAS

To get the best from your receiver, it is important to use an outdoor antenna. Be sure to pick an outdoor antenna which suits your location. This is determined by the signal strength, the presence of multipath signals\*, and the location of the FM stations.

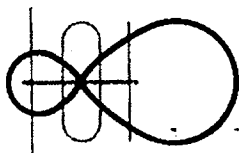
A ribbon dipole antenna picks up signals from both front and rear equally well, but is susceptible to the pickup of extraneous noise.



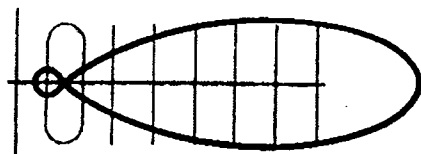
A Sony table-top type AN-300 helical FM antenna (optional), which incorporates a tuning circuit, has the same pick-up pattern, with equal front and rear sensitivity, as a ribbon dipole antenna, but it is also liable to pick up extraneous noise. When this antenna is used with this receiver, the antenna is automatically tuned to the same station as the receiver. This type of antenna is convenient when it is not practical to install an FM outdoor antenna and where the signals are sufficiently strong.



A dipole antenna with reflector has increased sensitivity to front signals and reduced sensitivity to rear signals.



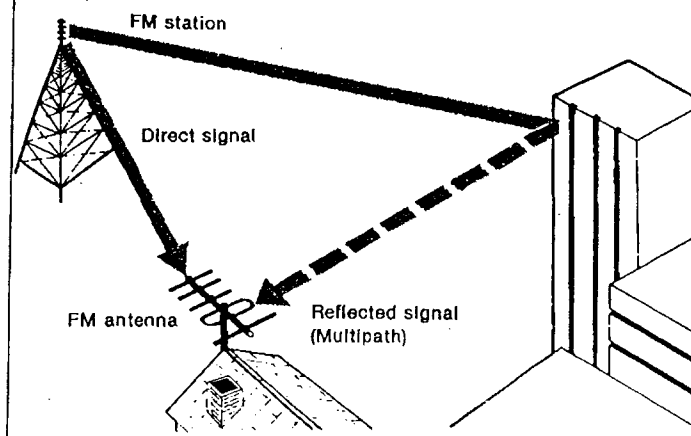
A multi-element type has a narrower pick-up pattern with high frontal sensitivity and superior rejection of rear signals.



### FM antenna installation and orientation

- Install the FM antenna as high as possible, keeping it away from TV antennas or others operating in roughly the same frequency range.
- The antenna should be located on the side of your house away from heavy auto traffic to avoid ignition noise interference.
- To obtain good reception from all directions, the use of a remotely-controlled rotatable antenna, or an omnidirectional antenna which picks up signals equally well in all directions, is recommended.

\* Multipath signals reflect from hills or structures, reach the receiving antenna perceptibly later in time and cause severe distortion and complete loss of channel separation. Multipath signals can be avoided to a great extent by using a coaxial cable, and a good directional antenna that is correctly oriented.



### NOTE ON THE FM AND TV ANTENNAS

—When the stereo receiver and video system are connected and both are in use

We recommend the use of outdoor antennas to obtain better quality picture and sound. Please.....

- Install separate outdoor antennas for FM and TV reception.
- Use 75-ohm coaxial cables for both antennas.
- Locate the two antennas as distant as possible from each other.

If the outdoor antenna installation described above is impossible and if the TV signal strength is weak, then FM signals may interfere with the TV picture and sound.

To resolve this problem, press the TUNER FUNCTION\* key and change the frequency displayed in the band/frequency window to any other frequency.

# TROUBLE CHECKS

The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problem persist after you have made these checks, consult your nearest Sony service facility. Before going through the check list below, first refer back to the connection and operating procedures.

## BROADCAST PROGRAMS

### STEREO indicator does not light when receiving stereo programs

- Adjust the antenna.
- Press the FM MODE key.

### STEREO Indicator flickers

- Adjust the antenna or connect an external FM antenna.
- Press the FM MODE key to disengage the stereo mode.

### The frequency/function display figures do not stop at the desired station during sweep tuning

- The signal strength is too weak for sweep tuning.
- Adjust the antenna for optimum reception or tune in the station with the direct access tuning system.

### Tuning cannot be done correctly when the PRESET TUNING key is pressed

- Memorize the frequency correctly.

### AM stations cannot be tuned in

- The AM channel plan selector on the bottom is set incorrectly.
- Set the selector correctly according to the AM frequency allocation system of your country. (Page 3)

### Severe hum or noise

- Use shielded connecting cords.
- Ground the receiver.
- Avoid long horizontal runs of antenna lead.
- Keep connecting cords (or antenna lead-in) away from transformers or motors, and at least 3 meters (10 feet) from TV sets and fluorescent lights.
- Adjust the antenna.
- Keep the speaker cords, connecting cords and power cords from the ferrite-bar antenna at the rear.

### Ignition noise

- Install the outdoor antenna away from heavy traffic.
- Use a shielded or coaxial lead-in for the antenna.

### Electrostatic charge

- Ground the receiver.

## VIDEO PROGRAMS

### No video picture

- Check the video connections. (Page 5)
- Check the function switch setting of the video cassette recorder.
- Check that the monitor TV is turned ON.

### No video sound

- Check the video sound connections. (Page 5)
- Check the function switch setting of the video cassette recorder.
- Check the VIDEO key setting of the receiver.
- Set the AUDIO DUBBING switch to OFF.

## GENERAL

### No audio

- Check speaker and program source connections.
- Check the settings of the TAPE MONITOR key.
- Check the SPEAKERS switch setting.
- Turn up the volume.

### No audio from one channel or unbalanced left and right volume

- Adjust the BALANCE control key.
- Check the speaker and input connections of the inoperative channel.

### Reversed left and right sound

- Check the speaker cord connection and speaker location.

### Lack of bass sound or obscure instrument position

- Check the speaker connection for proper phasing.

### Severe hum or noise

- Use shielded connecting cords.
- Keep the connecting cords away from transformers or motors and at least 3 meters (10 feet) from TV sets and fluorescent lights.
- Ground the receiver.

### Rustling noise

- Make secure connections.
- Wipe the plugs and jacks with a cloth lightly dampened with methanol.

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS  
POWER OUTPUT AND TOTAL HARMONIC  
DISTORTION:

With 8ohm loads, both channels driven,  
from 20 - 20,000 Hz; rated 50 watts per  
channel minimum RMS power, with no more  
than 0.008% total harmonic distortion from  
250 milliwatts to rated output.

OTHER SPECIFICATIONS

Amplifier section

Continuous RMS power output  
At 20 Hz - 20 kHz 50 + 50 watts (4 ohms)  
Dynamic headroom 1.4 dB ('78 IHF)  
Harmonic distortion Less than 0.008% at rated output (8 ohms)  
Less than 0.015% (4 ohms)  
Intermodulation (IM) distortion  
(60 Hz : 7 kHz = 4 : 1) Less than 0.008% at rated output (8 ohms)  
Frequency response PHONO: RIAA equalization curve ±0.5 dB  
CD/AUX  
TAPE-1, -2 5 Hz - 100 kHz ±0.5 dB  
VIDEO-1, -2  
Residual noise Less than 68 µV (8 ohms, network A)  
Damping factor 50 (8 ohms, 1 kHz)  
Inputs

	Sensitivity	Impedance	Maximum input capability (1 kHz)	S/N (weighting network, input level, IHF A)
PHONO	2.5 mV	50 kohms	140 mV	81 dB 79 dB* (at 2.5 mV)
CD/AUX TAPE-1, -2 VIDEO-1, -2	150 mV	40 kohms	—	100 dB 85 dB* (at 150 mV)

\*'78 IHF

Outputs  
REC OUT-1, -2, VIDEO OUT-1  
Voltage 150 mV  
Impedance 10 kohms  
SPEAKERS A, B  
Accepts speakers of 4 to 16 ohms (A or B)  
Accepts speakers of 8 to 16 ohms. (A and B)  
HEADPHONES  
Accepts low and high impedance head-  
phones.  
Tone controls  
BASS  
±8 dB at 100 Hz  
TREBLE  
±8 dB at 10 kHz  
Low filter  
6 dB/oct at 15 Hz

Video section

Inputs  
VIDEO 1, 2: 1 Vp-p, 75 ohms  
unbalanced  
Outputs  
VIDEO 1 } 1 Vp-p, 75 ohms  
MONITOR VIDEO OUT } unbalanced

FM tuner section

Tuning range 87.5 MHz - 108 MHz  
Antenna terminals 300 ohms, balanced  
75 ohms, unbalanced  
Intermediate frequency 10.7 MHz  
Sensitivity at 50 dB quieting  
17.3 dBf, 4 µV (mono)  
38.3 dBf, 45 µV (stereo)

Sony Corporation Printed in Japan

Usable sensitivity 11.2 dBf, 2 µV (IHF)  
Signal-to-noise ratio 82 dB (mono), 76 dB (stereo)  
Harmonic distortion 0.08% (mono), 0.15% (stereo) at 1 kHz  
IM distortion 0.08% (mono), 0.15% (stereo)  
Separation 45 dB at 1 kHz  
Frequency response 30 Hz - 15 kHz ±0.5 dB  
Selectivity 60 dB at 400 kHz  
Capture ratio 1.0 dB  
AM suppression ratio 54 dB  
Image response ratio 80 dB  
IF response ratio 75 dB  
Spurious response ratio  
70 dB  
RF intermodulation 65 dB (IHF)  
Auto-tuning threshold  
Approx. 30 dBf

AM tuner section

Tuning range 530 - 1,610 kHz (with the AM channel plan  
selector set at 10 kHz)  
522 - 1,602 kHz (with the AM channel plan  
selector set at 9 kHz)  
Antenna Ferrite-bar antenna  
External antenna terminal  
Intermediate frequency 450 kHz  
Usable sensitivity 50 dB/m, ferrite-bar antenna (at 1,000 kHz)  
100 µV, external antenna (at 1,000 kHz)  
Signal-to-noise ratio 54 dB (at 50 mV/m)  
Harmonic distortion 0.3% (at 50 mV/m, 400 Hz)  
Selectivity 40 dB (10 kHz)  
Auto-tuning threshold  
50 dB/m

General

System Tuner section: Super heterodyne PLL  
quartz-lock digital synthesizer system  
Amplifier section:  
Low-noise NF type equalizer amp  
Pure-complementary SEPP  
Power requirements 120 V ac, 60 Hz  
Memory back-up power: Lithium battery,  
3 V dc  
Power consumption USA model: 140 watts  
Canadian model: 195 watts  
AC outlets Two switched (100 watts)  
Dimensions Approx. 430 × 105 × 360 mm (w/h/d)  
(17 × 4 1/4 × 14 1/4 inches)  
including projecting parts and controls  
Weight Approx. 8 kg (17 lbs 11 oz) net  
Approx. 9.5 kg (21 lbs) in shipping car-  
ton  
Accessories supplied  
FM ribbon antenna (1)  
Station label (1 set)  
Remote control cord (1)

Design and specifications subject to change without notice.