

AV Control Amplifier

Operating Instructions

WARNING

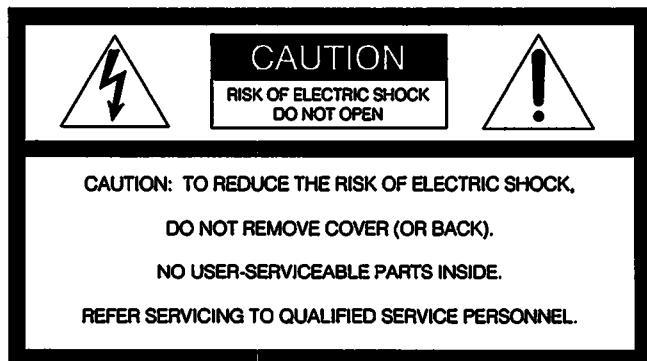
OWNER'S RECORD

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

Model No. TA-E741 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.

* The graphical symbols are on the rear enclosure.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Precautions

On safety

- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the unit, unplug it 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 the cord itself.

On installation

- Place the unit on a level surface.
- 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.

On cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

On repacking

Do not throw away the carton and the packing material. It makes an ideal container to transport the unit in.

If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

For detailed precautions, see the leaflet "IMPORTANT SAFEGUARD".

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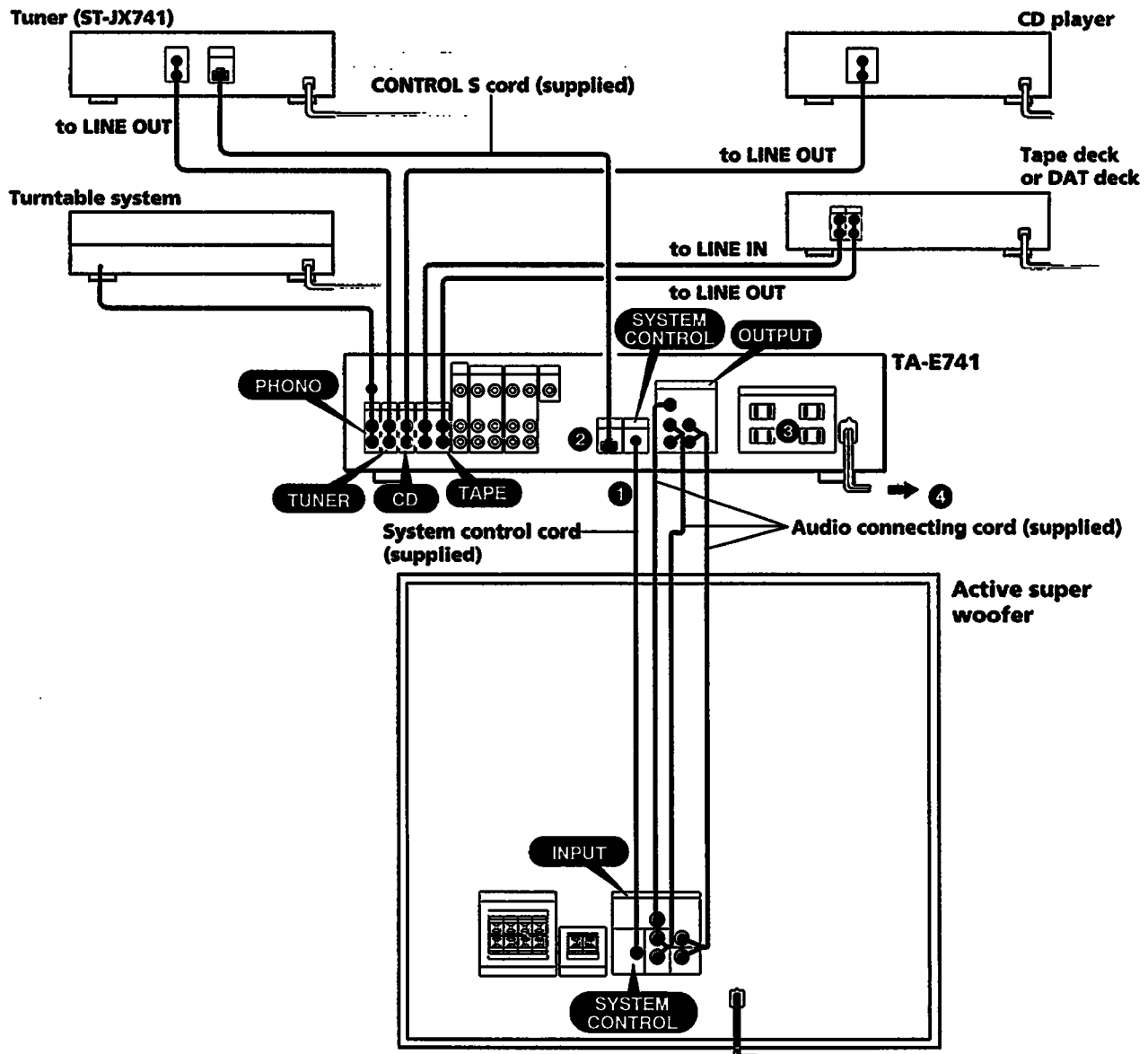
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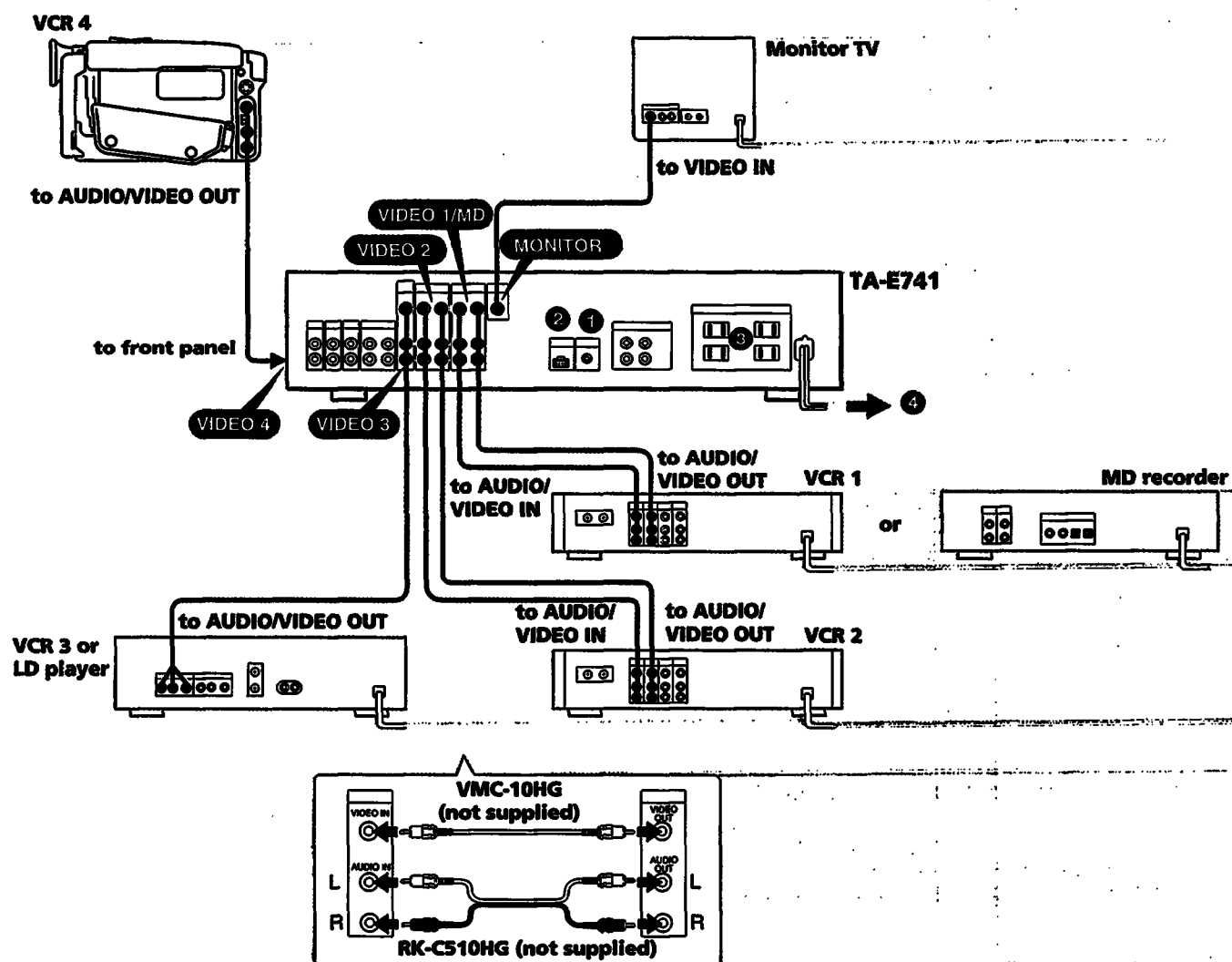
Connections

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) of the FRONT OUTPUT terminals and white ones for the left channel (L) of that terminals. And also, red plugs and jacks are for REAR terminal and white ones for CENTER terminal. Black plugs and jacks are for SUPER WOOFER terminal.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- The numbers correspond to the following details on page 6.

Connecting Audio Equipment



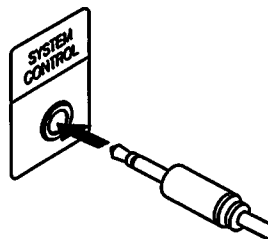
Connecting Video Equipment



Connections

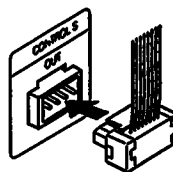
① System control cord (supplied)

Connect the SYSTEM CONTROL OUT jack on the rear to the SYSTEM CONTROL IN jack of the active super woofer. The output of the active super woofer is controlled by the unit.

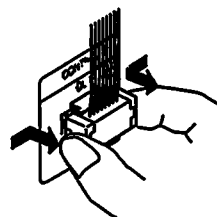


② CONTROL S cord (supplied)

Connect to the CONTROL S IN jack of the tuner with the CONTROL S cord.



Push in until it clicks.



To disconnect, pull it out by grasping both sides of the plug.

③ AC OUTLETS (SWITCHED)

Use these to power audio component whose total power consumption is less than the wattage indicated on the AC outlets.

These outlets are controlled by the SYSTEM POWER switch.

CAUTION

Do not connect any electrical home appliances such as an electric iron, fan, TV or other high wattage equipment to these AC outlets.

④ Power cord

Connect to a wall outlet.

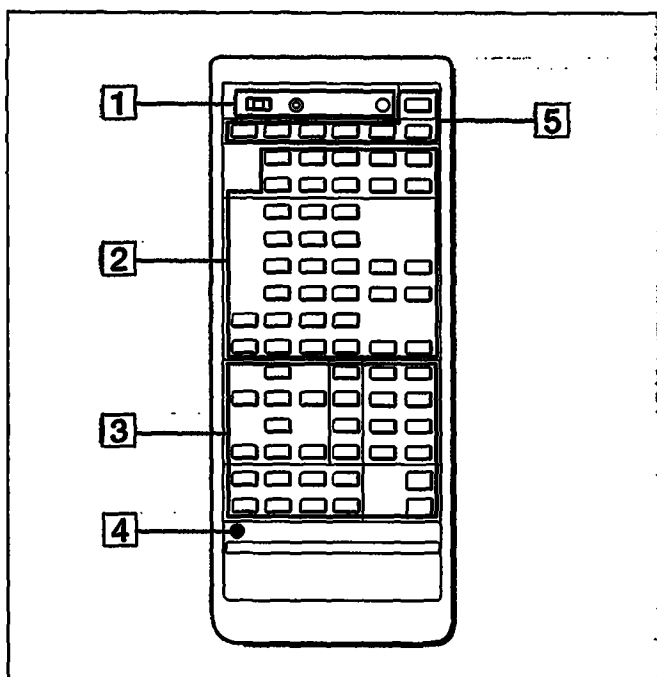
Remote Commander

- When you manipulate buttons on the remote commander, be sure to point the head of the commander toward the remote control sensor on the front of the TA-E741.
- If there is an obstacle between the TA-E741 and the head of the remote commander, the unit may not be controlled remotely.

Programmable Remote Commander RM-P741

The TA-E741 is supplied with the RM-P741.

The RM-P741 can also control other manufacture's equipments as well as Sony equipments. (see page 21)
When you control Sony equipments, each button on the RM-P741 can be used to perform the functions below:



1 Program control section

Mode selector and indicator

SONY STD: To control Sony equipment.

USER STD: To control equipment whose remote control functions are stored.

LEARN: To store functions of other remote commanders emitting infrared rays.

PROGRAM CLEAR button: Clears the stored functions.

2 Equipment control buttons

MODE buttons:

To operate the following control buttons, be sure to press the corresponding MODE button after selecting the input source with the FUNCTION button (see page 8 in [3]).

Numeric buttons: Designate numbers, preset numbers, channel numbers of TV/TUNER or selections of CD player or MD recorder.

> 10 button: Designate number or selections of CD player or MD recorder more than 10.

SHIFT, ENTER button: Selects memory page for preset stations or enter the selected TV channel

VOL +/- buttons: Control the volume level of equipment
PRESET/CH +/-: Scan and select preset stations or preset channel of TV or VCR or tuner.

◀/▶: Fast winding or forwarding for tape deck, CD player, MD recorder, VCR or LD player

◀◀/▶▶: Locates a desired selection (for CD player, MD recorder or LD player)

DISC SKIP, ◀ (tape deck only)/▶: Play or disc skip (for a CD player equipped with a multi-disc changer)

■: Stop

||: Pause

●+▶: Recording in the forward direction

●+◀ (tape deck only) Recording in the reverse direction

TV/VTR buttons: Select the output signal from the antenna terminal on the VCR 1, 2 and 3, either a TV signal or VCR programs.

Remote Commander

③ Amplifier/TV section

SURROUND mode buttons

(for the AV control amplifier)

ON/OFF: Turns on/off the surround mode.

MODE: Selects the surround mode.

T.(test) TONE: Outputs test tone to each speakers in succession.

DELAY: Press when adjusting the delay time.

CENTER VOL +/- buttons: Control the volume of center speaker. (for the AV control amplifier.)

REAR VOL/TV CH +/- buttons: Control the volume of rear speakers. (for the AV control amplifier.)

SUPER WOOFER ON/OFF button: Turns on/off the super woofer. (for the AV control amplifier)

PHASE button: Turns on/off the phase effect. (for the AV control amplifier)

VOL +/- buttons: Control the volume of the super woofer. (for the AV control amplifier)

CURSOR CONTROL buttons: Select a number or adjust the level (for the AV control amplifier)

FLAT button: Flattens the equalizer curve. (for the AV control amplifier)

DISPLAY button: Changes the display mode of AV control amplifier.

SOUND FIELD button: To select a factory preset sound field, press this button and then select a number with the CURSOR CONTROL buttons. (for the AV control amplifier)

USER button: To select a user preset sound field, press this button and then select a number with the CURSOR CONTROL buttons. (for the AV control amplifier)

Function buttons: Select an input source of the AV control amplifier

MASTER VOL +/- buttons: Control overall volume level.

④ Reset button

Resets the commander to the initial state.

⑤ Power control section

SYSTEM OFF button: Turns off the power of the whole system: LDP, VCR, TV, and AUDIO.

LDP/VTR1/VTR2/VTR3/TV/AUDIO POWER buttons: Control the power of each unit.

Note on the ● (recording) button under ③ Equipment control button

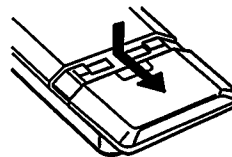
If your recorder is of such type as pressing ● + ► or ● + ◀ puts it in recording mode.

Note

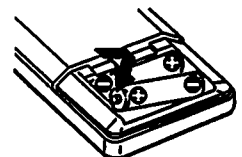
The ◀/▶ (play) buttons (for TAPE, CD, MD or VTR 1) and the SHIFT button and PRESET/CH +/- buttons in ② can function without pressing one of the FUNCTION buttons in ③.

Inserting the Batteries

1 Open the cover.



2 Insert two size-AA (R6) batteries with correct polarity.



Battery life

About half a year of normal operation can be expected when using the Sony SUM-3 (NS) (size AA) batteries.

When the batteries are exhausted, the commander can no longer operate the unit. Replace both batteries with new ones.

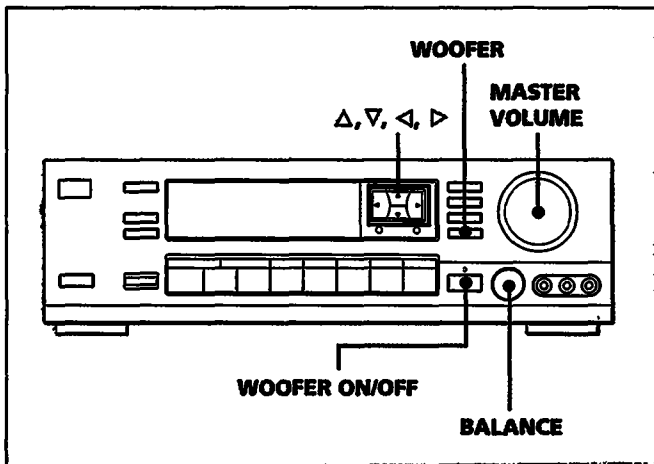
To avoid battery leakage

When the commander is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

To avoid malfunction of the remote commander

Avoid keeping the commander under extremely hot or humid location.

Adjusting the Sound



Adjusting Volume

To increase the volume, turn the MASTER VOLUME control clockwise.

To decrease it, turn the control counterclockwise.

Note

Turn down the volume before switching on the unit. This prevents damage to speakers.

Adjusting the Super Woofer Level

Press WOOFER ON/OFF so that the indicator lights and then press WOOFER.

To increase the level, press Δ or \triangleright .

To decrease the level, press ∇ or \triangleleft .

The super woofer level is indicated on the display.

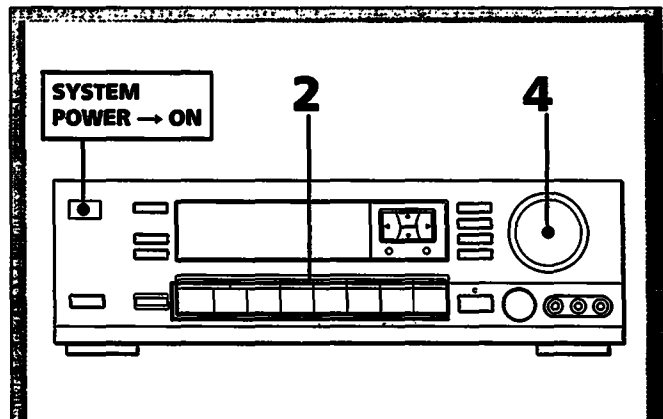
You can store the settings of the super woofer ON/OFF, the super woofer level and the phase normal/reverse in the memory (see page 19).

For the phase function, please refer the instruction manual supplied with the SA-W641/SA-W741.

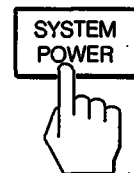
Adjusting Left and Right Sound Balance

Adjust BALANCE control to correct stereo imaging when the speaker position is not symmetrical.

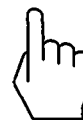
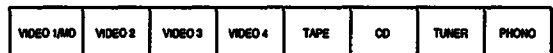
Listening to/Watching a Program Source



- 1 Press the **SYSTEM POWER** switch to turn on the unit.



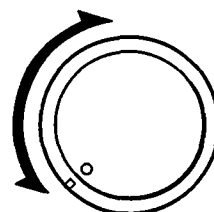
- 2 Select a program source.



- 3 Play the program source.

- 4 Adjust the volume.

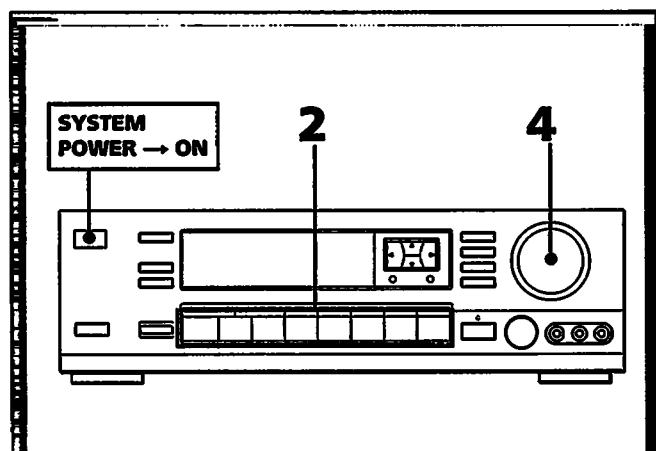
MASTER VOLUME



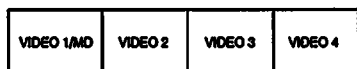
Listening to/Watching a Program Source

Combining the Video Image with the Sound from Another Program Source

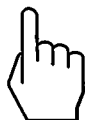
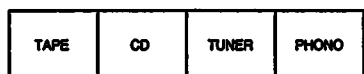
The unit allows you to combine a video image with sound from another audio program source as back ground music.



1 Select a video source.



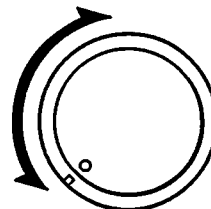
2 Select an audio source.



3 Play both the video and audio program sources.

4 Adjust the volume.

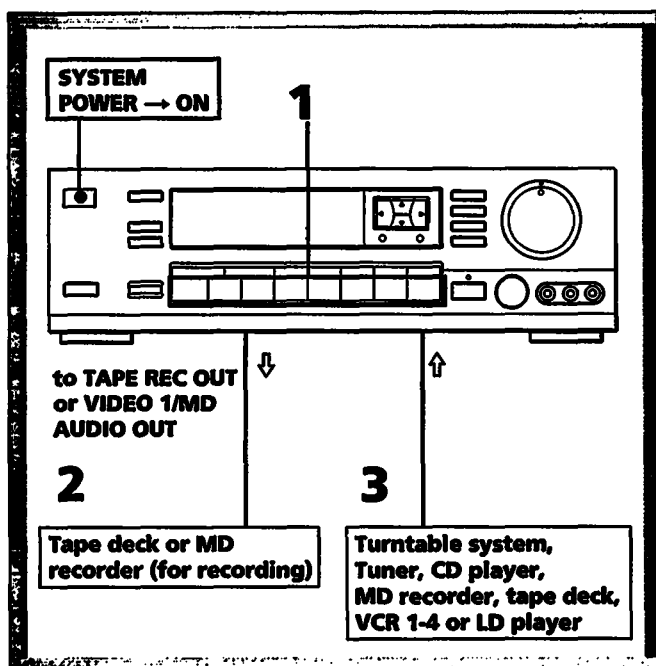
MASTER VOLUME



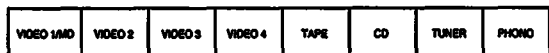
To cancel the combining function
Select the desired video source again.

To watch a video source with the MONITOR number displayed on the TV monitor
Select the video source with function selectors.

Recording Audio Program Source



1 Select a program source.



2 Set the tape deck or MD recorder to the recording mode.

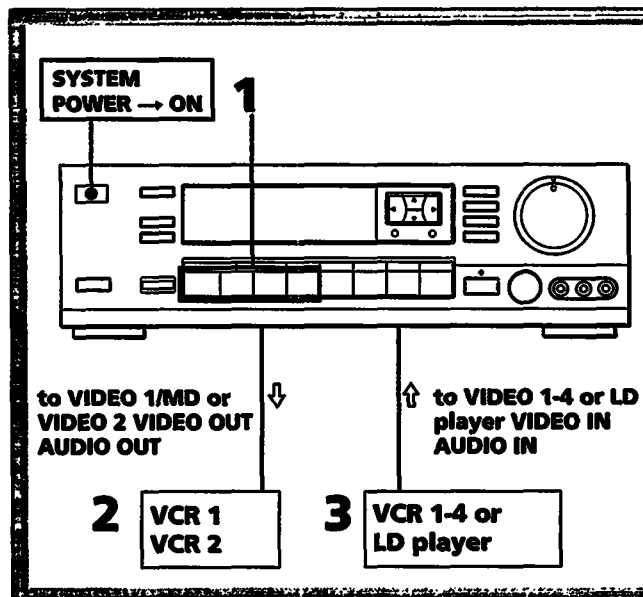
3 Play the selected program source.

Note

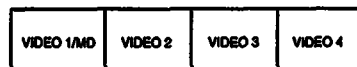
The settings of MASTER VOLUME, WOOFER volume, EQ, SURROUND, and BALANCE do not have any effect on recording.

Recording Video Program Source

You can operate two or more video or tape decks for recording at the same time as the audio (and video) signals of the program source are output simultaneously through all recording output jacks.



1 Select a video source for VCR 1-4 or LD player.



2 Set the VCR 1 or VCR 2 in the recording mode.

3 Play the selected program source.

To record onto two tapes at a time – simultaneous recording

Set both the VCR 1 and VCR 2 to the recording mode.

To record audio signal of video source onto a cassette tape

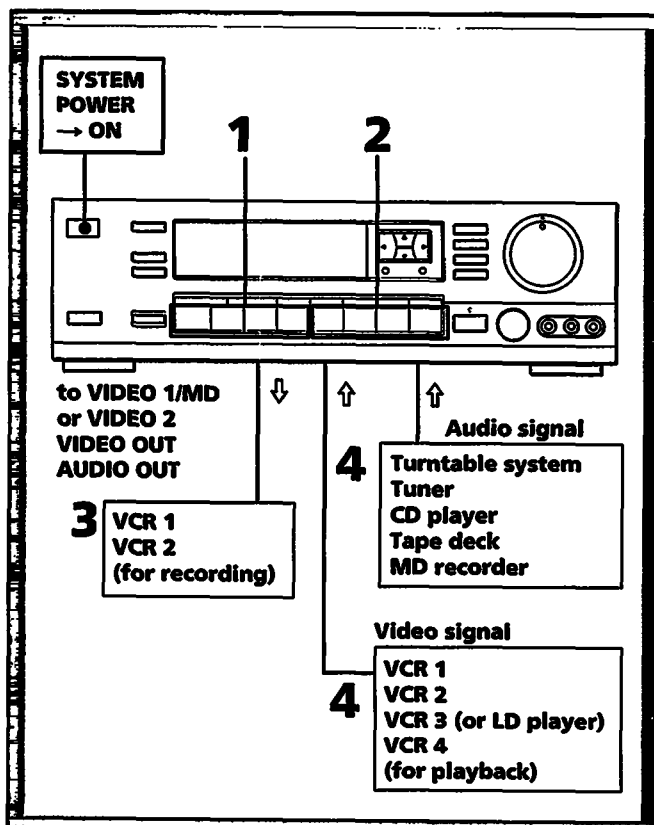
The audio signal of the program source selected by the FUNCTION selectors is always output from all output jacks. Set the tape deck or MD recorder to the recording mode.

Note

Recording can be performed with VCRs except the VCR or LD player for playback.

Editing Audio/Video Program Sources

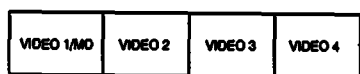
During video tape editing, you can add the desired sound on the recording-side video tape from audio or video program source.



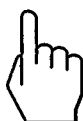
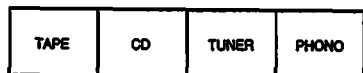
3 Set the VCR 1 or VCR 2 (for recording) to the recording mode.

4 Play both the selected program sources.

1 Select a video source for VCR 1, VCR 2, VCR 3 (or LD player) or VCR 4 except the VCR for recording.



2 Select an audio source.

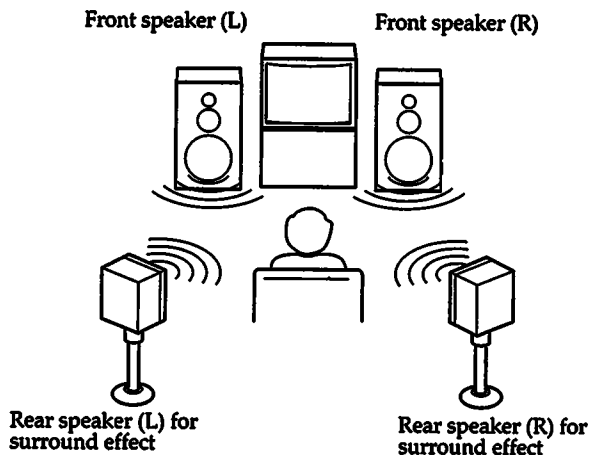


Getting Ready to Enjoy Surround Sound

Basic Surround System

Two front and two rear speakers are necessary to enjoy the surround sound.

Location of the rear speaker system



Selecting surround modes

DOLBY* SUR (Dolby Surround)

Applies to video programs (video software, TV shows, etc.) recorded with Dolby surround system (DOLBY SURROUND PRO LOGIC)**.

DOLBY PRO LOGIC

Since this unit incorporates the Dolby Pro Logic Surround Decoder, the sound field with moving effect is reproduced naturally.

This allows you to enjoy a "live" atmosphere, such as a concert hall or movie theater.

HALL (Hall Surround)

Provides reverberation effect that is produced in a concert hall.

SIMULATED (Simulated Surround)

Gives a simulated stereo effect to monaural sound.

To turn on or off the surround mode

Press the SURROUND ON/OFF button.

Note

No sound will be heard from the surround speakers, when the SURROUND ON/OFF button is set to OFF.

* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. number 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "DOLBY", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

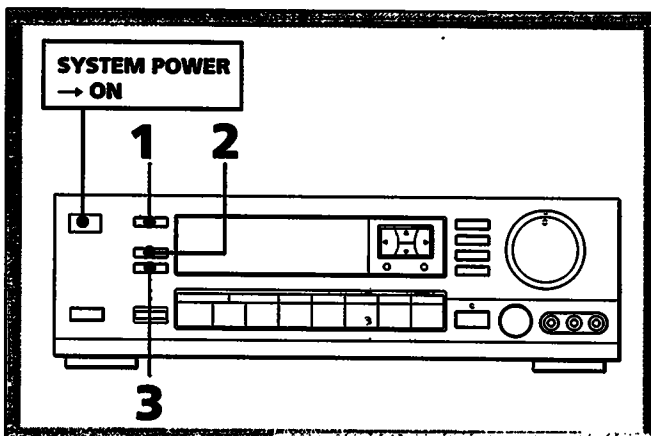
** DOLBY SURROUND PRO LOGIC decoder reproduces the specially encoded surround sound of Dolby surround video programs.

Selecting the Speaker Operation Mode for Surround Sound

One center speaker is required in addition to the basic four speakers for the Dolby Pro Logic surround system.

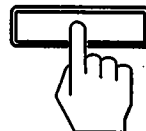
In the DOLBY SUR (Dolby Surround) mode, a speaker operation mode can be selected to match your speaker system.

Press the PRO LOGIC MODE button to select the appropriate mode by referring to the description on the next page.



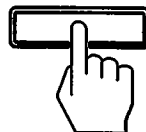
- 1 Press SURROUND ON/OFF so that the SURROUND ON indicator lights.**

SURROUND ON/OFF



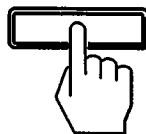
- 2 Press SURROUND MODE so that the DOLBY SUR indicator lights.**

SURROUND MODE



- 3 Select the speaker operation mode according to your speaker system with PRO LOGIC MODE.**

PRO LOGIC MODE



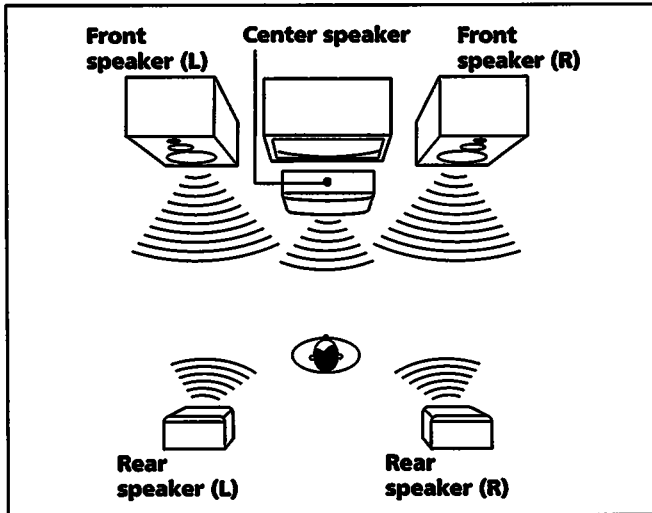
Each time the PRO LOGIC MODE button is pressed, the center mode is changed in the following order:

→ NORMAL → WIDE → 3 CH → PHANTOM →

Getting Ready to Enjoy Surround Sound

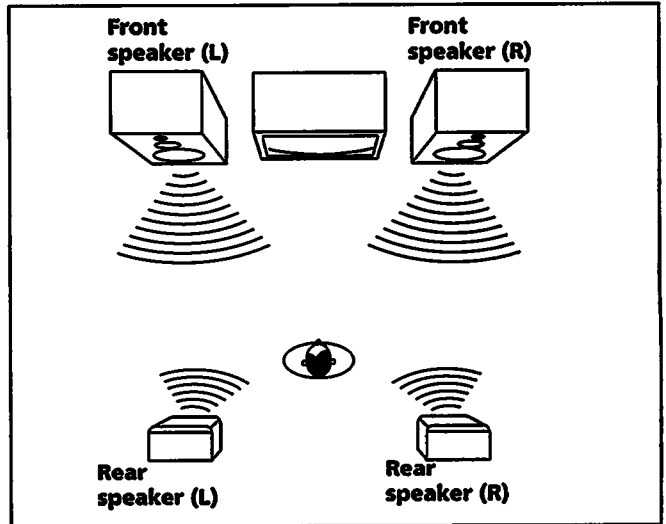
NORMAL mode

When connecting smaller speaker than front speakers, such as that of TV for a center speaker. The bass sound of the center channel is output from the front speakers, as small speaker cannot produce enough bass.



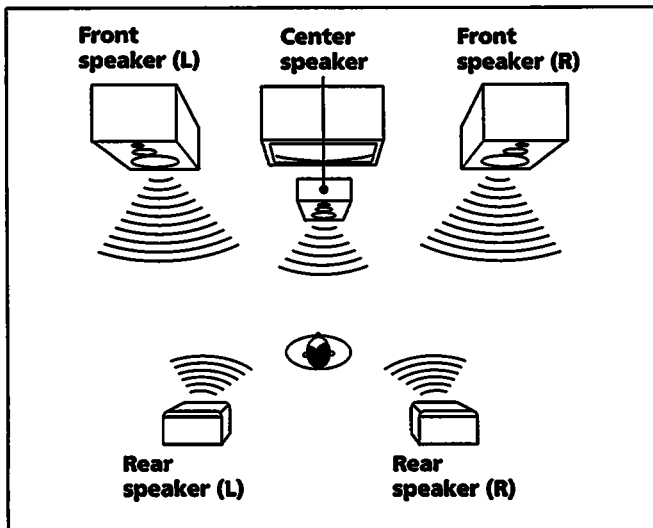
PHANTOM mode

When connecting only front and rear speakers. The sound of the center channel can be heard from the front speakers.



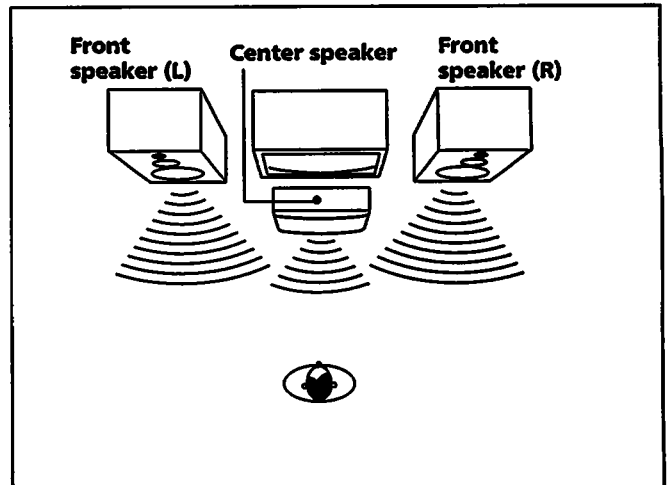
WIDE mode

When connecting the same size of speaker as front speakers for a center speaker.



3 CH. mode

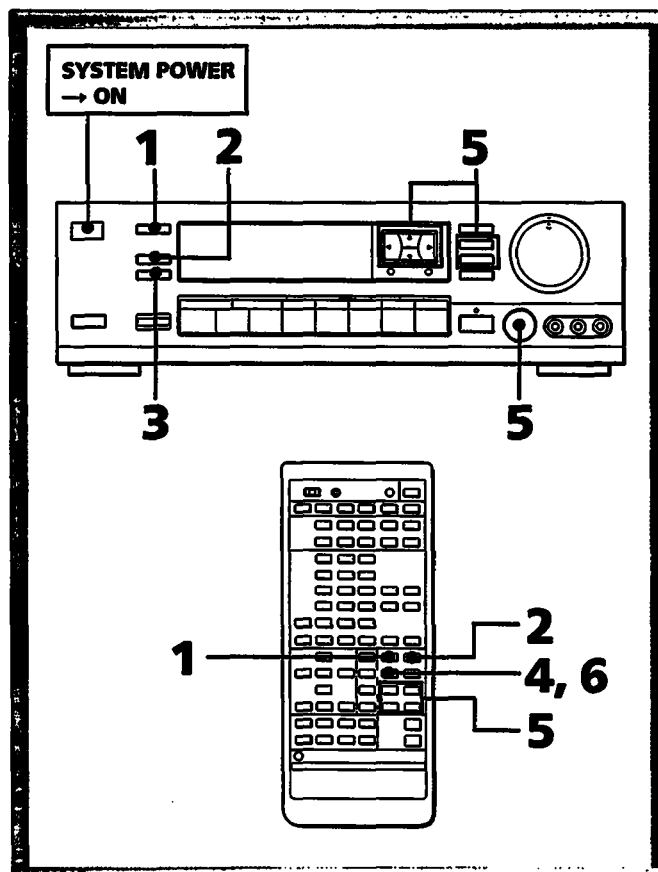
When connecting front speakers and a center speaker. The sound of the rear channels can be heard from the front speakers.



Adjusting the Surround Level for Dolby Surround System

To obtain the best possible surround sound, set the volume of the front, center and rear speakers to the same level. A Test Tone feature lets you test the volume of each speaker set.

You can adjust the volume level from your listening position using the remote commander.



1 Press SURROUND ON/OFF so that the SURROUND ON/OFF indicators in the display window shift over to ON.

2 Press SURROUND MODE to select DOLBY SUR.

3 Select the speaker operation mode according to your speaker system with PRO LOGIC MODE on the front panel.

4 Press T.TONE on the remote commander. (The T.TONE function is available only with the remote commander.)

5 Adjust the volume level so that the sound from each speaker will be same.

To adjust volume balance between the left and right front speakers

Rotate BALANCE on the front panel.

To adjust the level of center speaker

Press CENTER VOL +/- on the remote commander.

To adjust the level of rear speaker

Press REAR VOL +/- on the remote commander.

When operating with buttons on the front panel
Press CENTER or REAR.

To increase the level, press Δ or \triangleright .

To decrease the level, press ∇ or \triangleleft .

6 After completing the adjustment, press T.TONE on the remote commander again to cancel the test tone.

Automatic Input Balance

The input balance is automatically adjusted. When the DOLBY SUR is selected, the AUTO INPUT BALANCE indicator lights up.

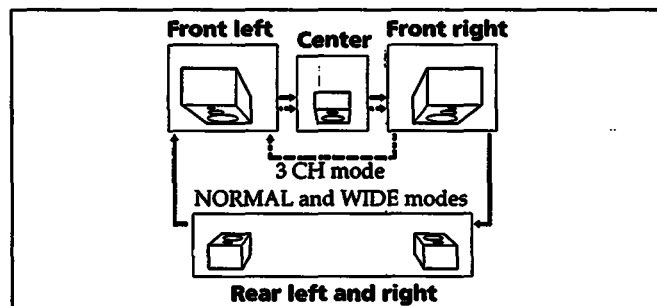
Note

The display window has level indicators for rear speakers and center speaker. When distorted sound is seem to be output from the rear speakers or center speaker, adjust their levels independently so that the peaks of the signal levels may not reach the orange section.

Sequence of the test tone

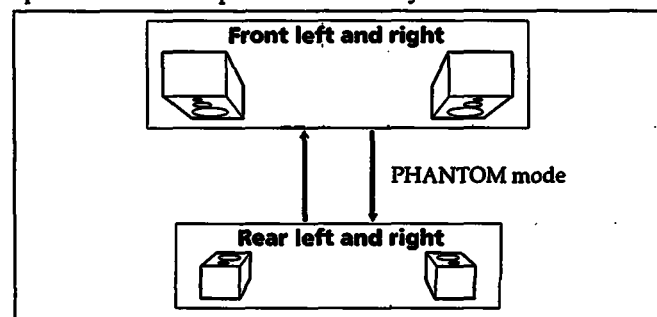
In a system with a center speaker:

The test tone will be heard automatically from the front left, center, front right, and the rear speakers in succession.



In a system without a center speaker:

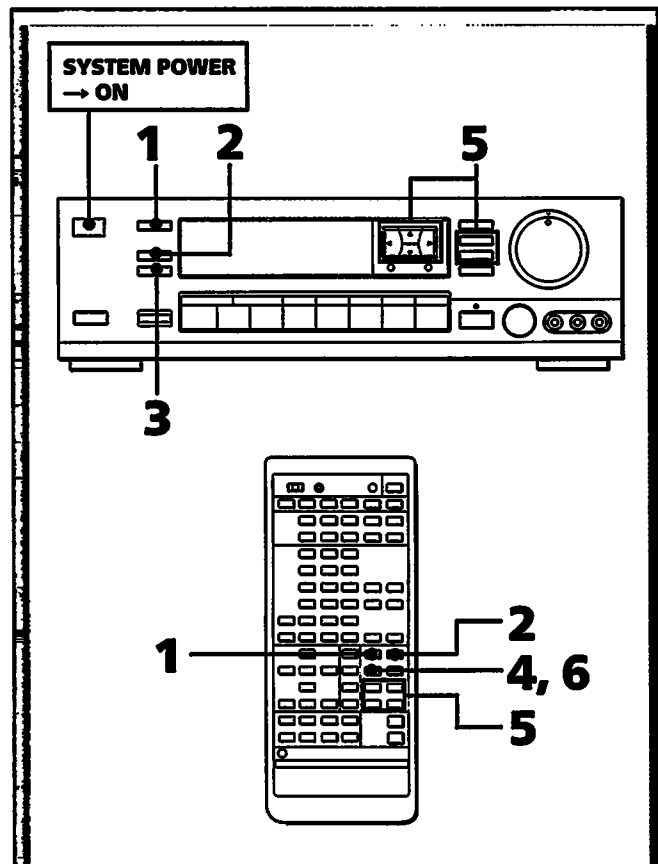
The test tone will be heard automatically from the front speakers and rear speakers alternately.



Enjoying Surround Sound

Listening to with Surround Sound

This unit has three surround modes, DOLBY SUR, HALL, and SIMULATED which have been preset in the factory. You can enjoy the surround sound effects by just selecting the surround mode according to the program source



- 1** Press SURROUND ON/OFF so that the SURROUND ON/OFF indicators in the display window shift over to ON.
- 2** Select a surround mode (DOLBY SUR, HALL or SIMULATED) with SURROUND MODE.
- 3** Select the speaker operation mode according to your speaker system with PRO LOGIC MODE on the front panel.
- 4** Press DELAY on the remote commander and select the delay time: 15ms, 20ms or 30ms.

5 Adjust the level of the center speaker and rear speakers.

To adjust the level of the center speaker
Press CENTER VOL +/- on the remote commander.

To adjust the level of the rear speakers
Press REAR VOL +/- on the remote commander.

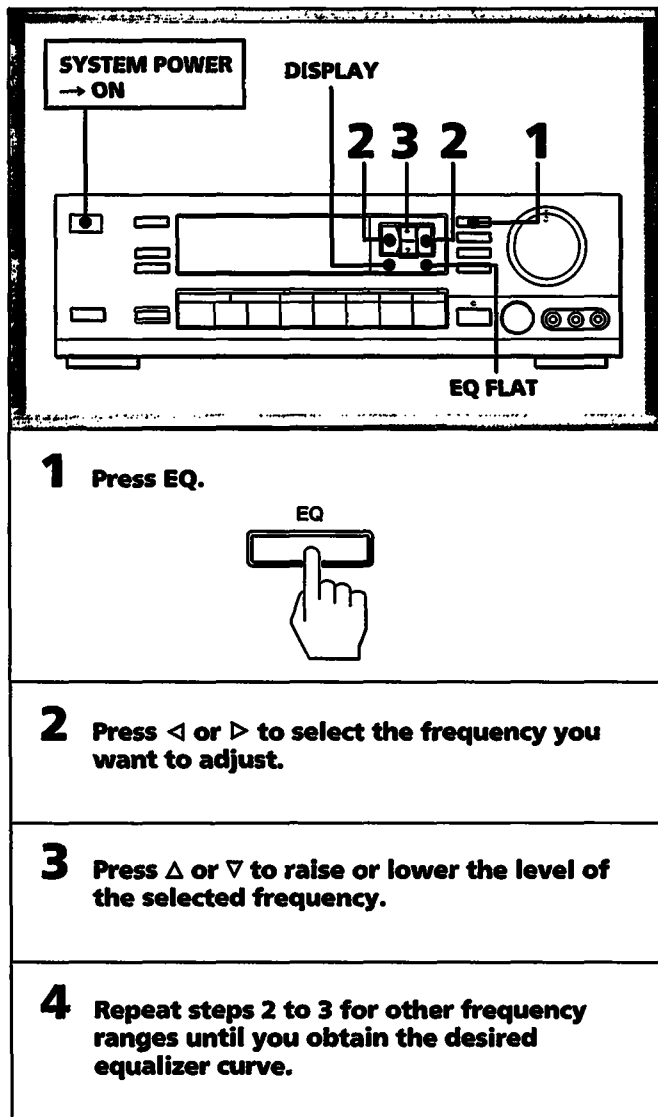
When operating with button on the front panel
Press CENTER or REAR.

To increase the level, press Δ or \triangleright .
To decrease the level, press ∇ or \triangleleft .

To turn off the surround effect
Press SURROUND ON/OFF to OFF.
The sound without surround effect will resume.

Adjusting the Equalizer Curve

You can adjust the level of each frequency ranges of 7-band equalizer.



Characteristics of Each Frequency

- 63 Hz:** Lowering the level will cut the ventilation noise of a music hall, hum of electronic instruments, boomy bass, etc. Raising the level will reinforce the heavy bass part of a pipe organ or add depth to the bass sound.
- 160 Hz:** Boosting or cutting the normal bass.
- 400 Hz:** Increasing or decreasing the power, spaciousness and warmth of the sound.
- 1 kHz:** Providing more presence for vocals, and moving the sound forward or into the background.
- 2.5 kHz:** Lowering the level will reduce stridency, and raising will make the base sound brighter.
- 6.3 kHz:** Increasing or decreasing the brightness of the sound: for example, raising the level will make the violin sound silky smooth.
- 16 kHz:** Changing the general atmosphere rather than the sound itself. Raising the level will highlight the delicate quality of instrumental sound, and lowering will reduce high-frequency noise such as the resonant peak of a cartridge tape hiss, etc.

Flattening an Equalizer Curve

Use this feature when you want to make an equalizer curve from the beginning.
Press the EQ FLAT on the front panel or FLAT on the remote commander.

Changing the Display

Each time you press the DISPLAY, the display changes between spectrum analyzer mode and graphic equalizer mode.

Notes

- If you want to adjust the equalizer curve without surround effect, set the SURROUND ON/OFF button to OFF after selecting the sound field in step 2. The EQ button lights up automatically.
- When an equalizer curve is adjusted in spectrum analyzer mode, the display changes to graphic equalizer mode automatically.
To change the display to spectrum analyzer mode, press the DISPLAY button.

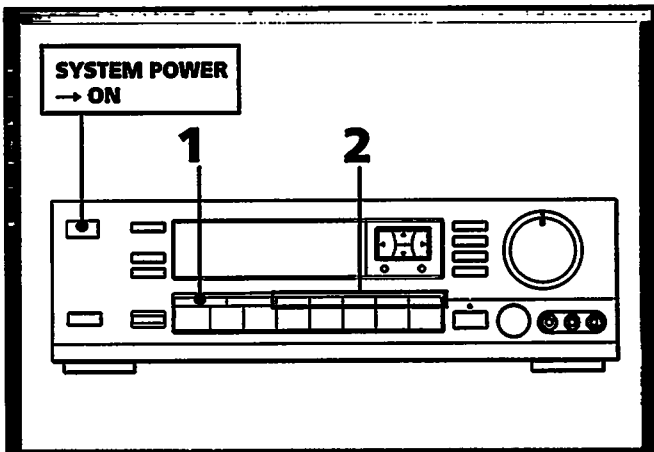
Enjoying Sound Field

Characteristics of the SOUND FIELD program

This unit has five SOUND FIELD programs which have been preset in the factory. The characteristics are as follows.

| SOUND FIELD | Characteristics |
|-------------|---|
| ROCK | Effective for playing rock music to reproduce a dynamic sound. (Based on HALL surround mode) |
| CLASSIC | Obtains wide acoustic when playing the classic music. (Based on HALL surround mode) |
| POPS | Vocal sound is intensified. (Based on HALL surround mode) |
| VOCAL | Vocal sound is intensified. (SURROUND OFF mode) |
| MOVIE | Gives an atmosphere similar to a movie theater. (Based on DOLBY SUR surround mode) |

Listening with Factory Sound Field Settings



1 Press SOUND FIELD.
The last selected sound field program is indicated with ►.

2 Press 1 - 5 to select the desired sound field program.
The selected SOUND FIELD is indicated with ►.

| | |
|-----------|---|
| ROCK | 1 |
| ► CLASSIC | 2 |
| POPS | 3 |
| VOCAL | 4 |
| MOVIE | 5 |

3 Play the program source.

When using the remote commander

To select a sound field, press SOUND FIELD repeatedly until the desired number is indicated with ►.

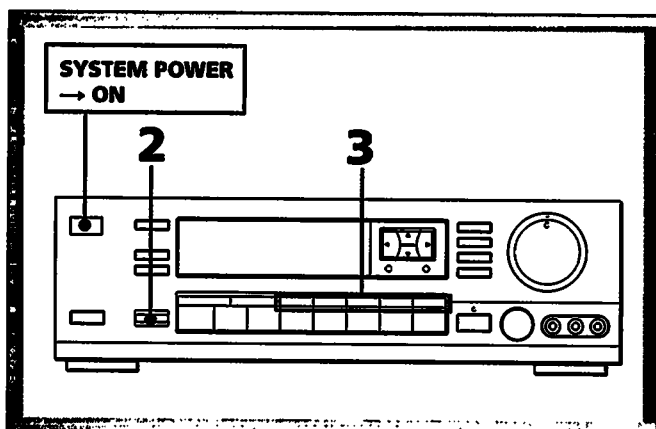
Filing Your Own Sound Field

Storing an Individual Adjustment —User File

You can store a combination of the desired surround settings and an equalizer curve.

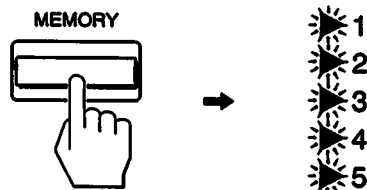
You can store up to 8 patterns in the memory. The effects which can be stored are as follows.

- Equalizer curve
- Surround mode and surround ON/OFF
- Super woofer ON/OFF
- Delay time
- Center level
- Rear level
- Super woofer level
- Phase function normal/reverse



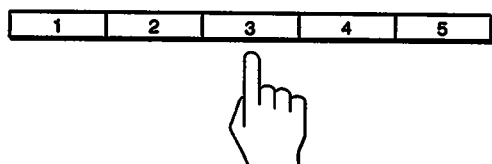
1 Adjust the sound as you wish, referring to pages 9, 16, 17.

2 Press MEMORY.
▶ indicators flashes for a few seconds.

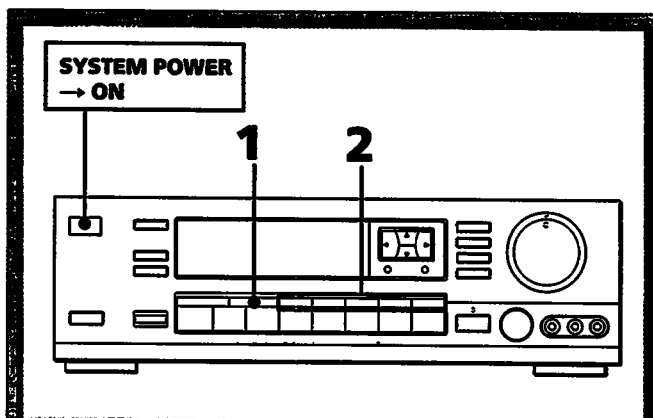


3 While ▶ indicators are flashing, press a numeric button (1 - 5) on the front panel to store the settings.

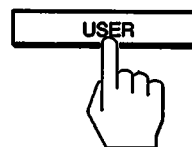
- The stored preset number is indicated with ▶.
- If any button other than the numeric button is pressed, the user file storing mode will be canceled.



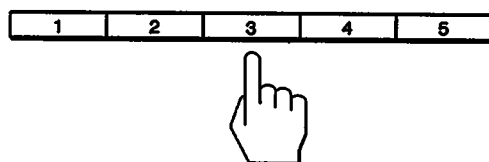
Recalling a Stored Adjustment in User File



1 Press USER.
The last selected preset number and the preset pattern name are indicated with ▶, and surround mode name based on the stored settings are displayed.



2 Press the numeric button (1 - 5) to select a stored number.
The selected preset number is indicated with ▶.



When using the remote commander

Press USER repeatedly until the desired number is indicated with ▶.

When the preset pattern is modified

The preset number goes off. However, the preset pattern stored in that number is not erased.

Erasing a stored setting

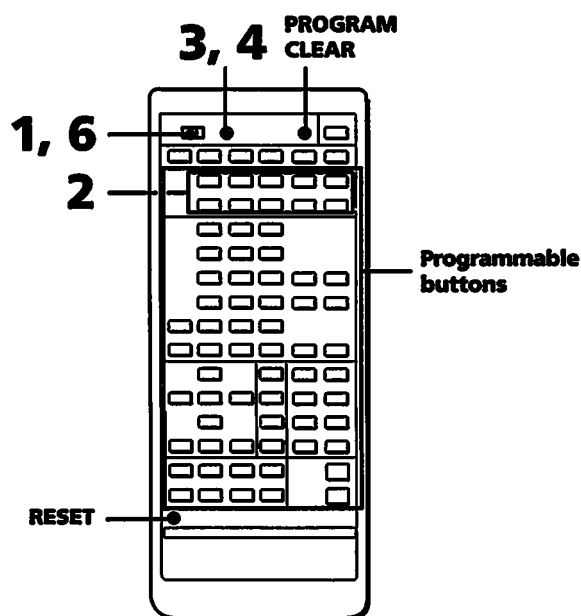
Storing a new setting erases the previously stored one.

Advanced Operating with the Remote Commander

Programming Signals of Other Audio/Video Equipment with RM-P741

The RM-P741 can learn various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video equipment from a distance.

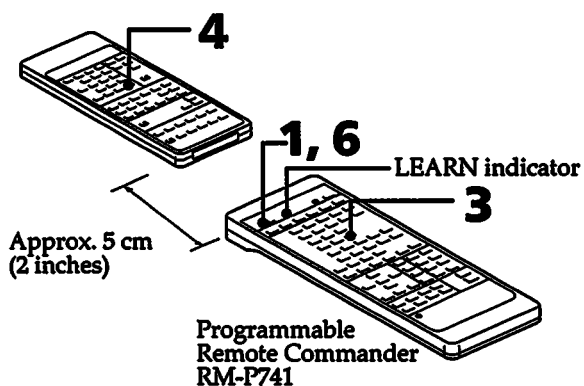
Insert batteries before operation.



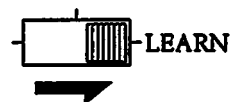
The two remote commanders must:

- be placed straight and head to head.
- be placed at a distance of approx. 5 cm (2 inches).
- not be moved during the programming operation.

Other manufacturer's remote commander

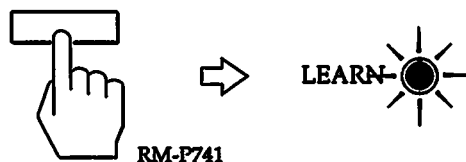


1 Set the mode selector to LEARN.

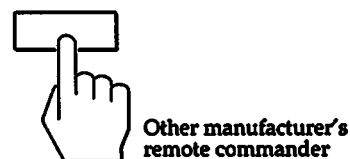


2 Select the equipment to be learned with the MODE button.

3 Press and hold the button until the LEARN indicator lights up.

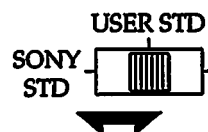


4 While pressing the button on RM-P741 which is selected in step 3 press and hold the button of other manufacturer's remote commander until the LEARN indicator goes off. The learning is completed.



5 Repeat 2 and 4 for each button to be programmed.

6 Set the mode selector to USER STD or SONY STD to control equipments.



After programming

Be sure to test if the equipment really works with the programmed signals.

Number of signals that the commander can learn

It depends on the format of the signal. If you program signals of Sony equipment, approximately 30 – 40 signals can be programmed.

If the LEARN indicator flashes or does not go out in steps 2 - 4.

The memory capacity has become full. This occurs when other signals stronger than the remote-control signals have been stored because the signals were programmed in a noisy environment or the remote commanders were placed too far apart from each other.

→ Clear all the signals following the procedure on the right and program again from the beginning under the proper conditions.

Notes on programming

- Remote-control signals of equipment of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable commander can "learn" only the signals output from another remote commander, it cannot control equipment that does not use a remote commander. Also, note that there are some special remote-control signals that cannot be programmed.
- Do not attempt to use the programmable commander with an air conditioner or other household appliances.

To Program a New Signal onto a Previously Programmed Button

Follow the programming procedure.

The previously programmed signal is cleared and replaced by the new signal.

To clear all programmed signals







- 1 Set the mode selector to LEARN.
- 2 Select the equipment to be cleared with the MODE button.
- 3 Press and hold any button of the programmable area until the LEARN indicator lights up.
- 4 Press PROGRAM CLEAR until the LEARN indicator flashes and goes off.

Note

It is not possible to clear the programmed content of just one button.

To program a signal onto the ● REC button in the TAPE or VTR section

It is not possible to operate any equipment with only the ● REC button. To program a signal under the ● REC button, press and hold the following buttons at the same time in step 2, 3.

| | |
|--------|--|
| TAPE |   or   |
| VTR/MD |   |

Controlling Equipment

By switching the mode selector as shown below, a single button alternately controls Sony equipment and another manufacturer equipment.

To control Sony equipment



To control equipment with programmed signals



When Sony equipment cannot be remote-controlled

Program the signal in the same way as for equipment from other manufacturers. In this case, even with Sony equipment, set the mode selector to USER STD.

Note on battery

If the LEARN indicator does not light when a button is pressed, the batteries are almost exhausted.

When the batteries are exhausted, the remote commander can no longer operate the unit or programming becomes impossible.

If this happens, replace both batteries with new ones. We recommend the use of alkaline batteries for prolonged use.

If no signal has been programmed

The programmable commander can control Sony equipment even when the mode selector is set to USER STD.

If the equipment works incorrectly

Press RESET.

The programmed contents of the buttons are not cleared by pressing RESET.

Specifications

Amplifier section

Harmonic distortion (Front)

Less than 0.02% (at 1 kHz, 180 mV, Surround off)

Frequency response (Surround off)

PHONO: RIAA equalization curve ± 1.0 dB
TUNER, CD, TAPE, VIDEO 1/MD, VIDEO 2, 3, 4: 20 Hz - 70 kHz ± 1.5 dB

Video section

Video input/output

Permissible signal input level

VIDEO 1/MD, VIDEO 2, 3, 4: 1.5 V_{p-p}

Output signal level

VIDEO 1/MD, VIDEO 2, MONITOR: 1.5 V_{p-p} (with 1 V_{p-p} input, measured at MONITOR OUT)

Impedance (output)

75-ohm unbalanced, negative sync.

Audio section

Input

| Input jack | Jack type | Sensitivity | Impedance |
|----------------------------|-----------|-------------|------------|
| PHONO (MM) | Phono | 3.0 mV | 50 kilohms |
| TUNER, TAPE, VIDEO 2, 3, 4 | Phono | 250 mV | 50 kilohms |
| CD, VIDEO 1/MD | Phono | 350 mV | 50 kilohms |

Output

| Output jack | Jack type | Sensitivity | Impedance |
|----------------------------|-----------|-------------|-----------|
| TAPE, VIDEO 1/MD, VIDEO 2 | Phono | 250 mV | 470 ohms |
| FRONT, REAR, CENTER WOOFER | Phono | 180 mV | 1 kilohms |

EQ

63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Boost and cut ± 10 dB

General

Power requirements

120 V AC, 60 Hz

Power consumption

18 W

AC outlets

4 switched, 480 W/4A max.

Dimensions

Approx. 430 x 105 x 295 mm (w/h/d)
(17 x 4¹/₄ x 11⁵/₈ inches)

(including projecting parts and controls.)

Mass

Approx. 3.5 kg (7 lb 12 oz)

Accessories supplied with the tuner and amplifier

CONTROL S cord (1)

Audio connecting cord (4)

AM loop antenna (1)

FM wire antenna (1)

System control cord (1)

Remote commander (1)

Sony batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

Troubleshooting

Before proceeding through the check list below, first refer back to the connection and operating procedures. Should any problem persist after you have made these checks, consult your nearest Sony dealer.

| Trouble | Remedy |
|--|--|
| Power cannot be turned on. | <ul style="list-style-type: none"> • Check if the power cord is disconnected from the power outlet. |
| No audio. | <ul style="list-style-type: none"> • Check for faulty connection. (See pages 4 to 6.) • Check for short-circuited speaker terminals. • Check that the function selectors are correctly selected. • Check that the connected equipment, such as a graphic equalizer is turned on. |
| No sound or sound at very low level is heard from rear speakers. | <ul style="list-style-type: none"> • Check if the SURROUND ON/OFF is set to OFF – SURROUND OFF indicator is lit. (See page 13 to 16.) • Check if the volume level of the rear speakers is set to minimum. • Check if the monaural program source is played back in Dolby surround mode. • Check if the 3 CH. mode is selected in the Pro Logic mode. (See page 13.) |
| No audio from one channel. | <ul style="list-style-type: none"> • Check if the BALANCE control is set to an extreme position. • Check if the speaker cord or connection cord is disconnected. |
| Distorted audio. | <ul style="list-style-type: none"> • Check if the audio volume setting is above the maximum permissible input of the speakers. |
| Obscure instrument positioning, which lack of bass sound. | <ul style="list-style-type: none"> • Check if the positive (+) speaker terminal on the main body is not connected to the negative (-) terminal on the speaker, and vice versa. |
| Hum or noise. | <ul style="list-style-type: none"> • Check that the grounding wire of the turntable is connected securely. • Check that the connection cords are inserted securely into jacks. |
| No video. | <ul style="list-style-type: none"> • Check that the connections are correct. (See page 5.) • Check that the function selectors are correctly selected. |
| Unclear video, low image quality. | <ul style="list-style-type: none"> • Check if there is any nearby source of noise. |
| Remote-control operation cannot be performed. | <ul style="list-style-type: none"> • Check that the batteries are inserted correctly. (See page 8.) • Check if there is any obstacle between the programmable commander and the AV control amplifier. (See page 7.) • Check if the batteries are exhausted. • Check if the mode selector is set to USER STD in remote-control operation using programmed signals. (See page 21.) |
| The remote-control signal cannot be programmed. The LEARN indicator does not light. | <ul style="list-style-type: none"> • Place both remote commanders apart from the source of noise. • Check if the batteries are exhausted. (See page 20.) |
| The LEARN indicator goes off after flashing. | <ul style="list-style-type: none"> • The internal memory capacity is full. (See page 20.) |