

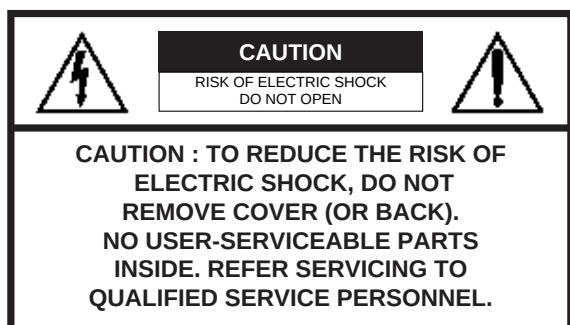
Introduction

UNPACKING AND

Congratulations on Your Purchase!

Your new high fidelity receiver is designed to deliver maximum enjoyment and years of trouble free service. Please take a few moments to read this manual thoroughly. It will explain the features and operation of your unit and help ensure a trouble free installation. Please unpack your unit carefully. We recommend that you save the carton and packing material. They will be helpful if you ever need to move your unit and may be required if you ever need to return it for service. Your unit is designed to be placed in a horizontal position and it is important to allow at least two inches of space behind your unit for adequate ventilation and cabling convenience.

To avoid damage, never place the unit near radiators, in front of heating vents, in direct sunlight, or in excessively humid or dusty locations. Connect your complementary components as illustrated in the following section.



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.

WARNING

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

Caution : Do not block ventilation openings or stack other equipment on the top.

FOR U.S.A.

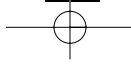
■ **Note to CATV System Installer:** This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

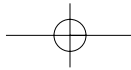
■ **FCC INFORMATION**

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: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.





READ THIS BEFORE OPERATING

FOR U.S.A. AND CANADA120 V

FOR YOUR SAFETY

Units shipped to the U.S.A. and Canada are designed for operation on 120 V AC only.

Safety precaution with use of a polarized AC plug. However, some products may be supplied with a nonpolarized plug.

CAUTION : *To prevent electric shock, match wide blade of plug to wide slot, fully insert.*

ATTENTION : *Pour eviter les choc electriques, introduire la lame la plug large de la borne correspondante de la prise et poussre jusqu'au fond.*

FOR EUROPE AND AUSTRALIA230 V/240 V

FOR YOUR SAFETY

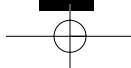
Units shipped to Australia are designed for operation on 240 V AC only.

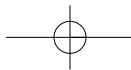
To ensure safe operation, the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring. Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Improper extension cords are a major cause of fatalities. The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.

PAN-EUROPEAN UNIFIED VOLTAGE

All units are suitable for use on supplies 230-240 V AC.

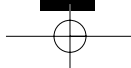
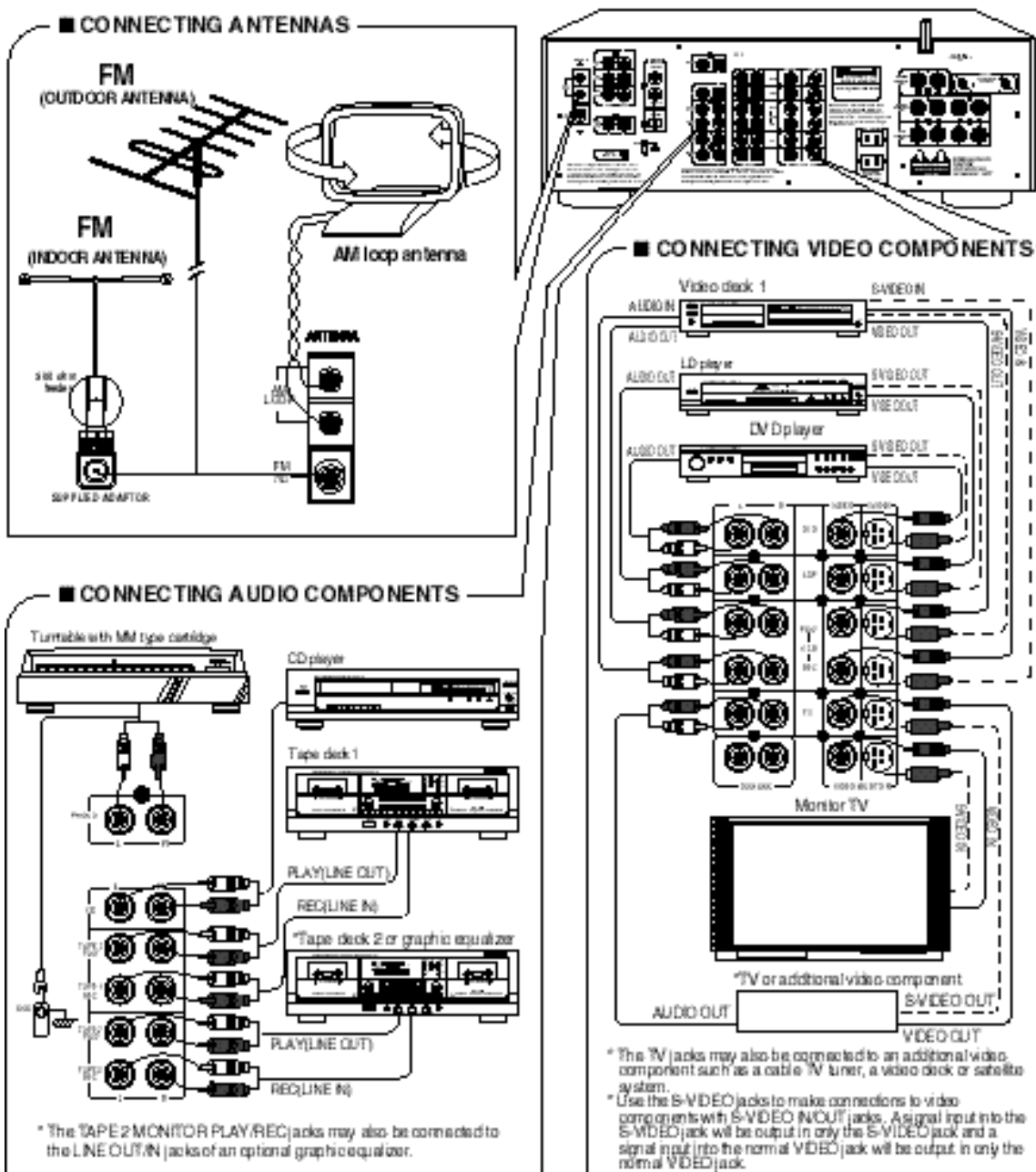
ENGLISH

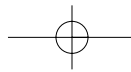




System Connections

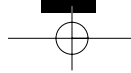
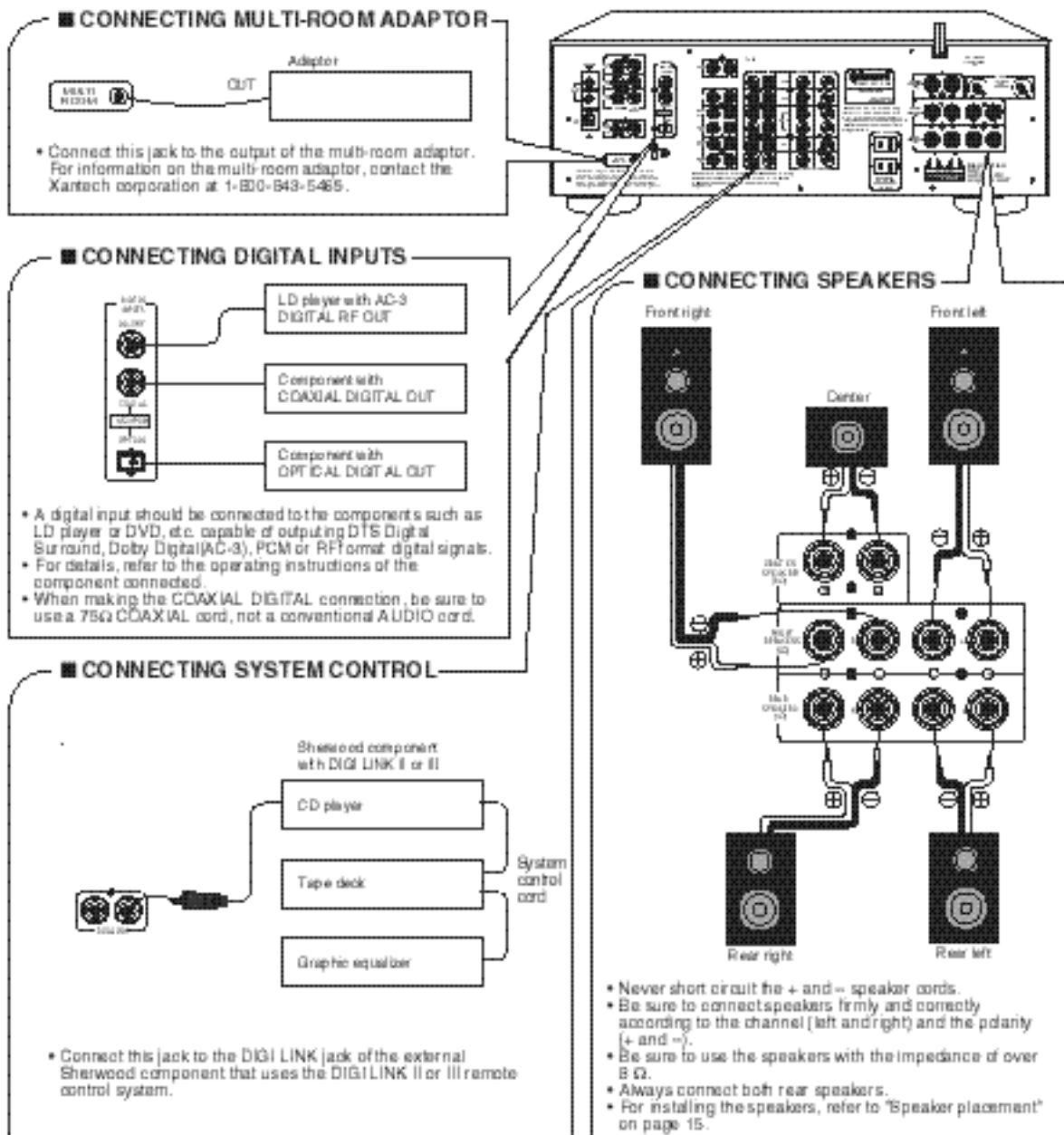
- Do not connect the receiver to the wall AC outlet when plugging and unplugging connection cords.
- Be sure to connect the white RCA pin cords to the L (left) and the red RCA pin cords to the R (right) jacks when making connections.
- Change the position of the FM indoor antenna until you get the best reception of your favorite FM stations.
- A 75 Ω outdoor FM antenna may be used to further improve the reception.
Disconnect the indoor antenna before replacing it with the outdoor one.
- Place the AM loop antenna as far as possible from the receiver, TV set, speaker cords and the AC input cord and set it to a direction for the best reception.
- If the reception is poor with the AM loop antenna, an AM outdoor antenna can be used in place of the AM loop antenna.
Caution: When listening to AM broadcasts in a surround mode without an AM antenna, digital noise can be heard.
Should this happen, connect an AM antenna.
- Make connections firmly and correctly. If not, it can cause loss of sound, noise or damage to the receiver.
- If the electricity fails or the AC input cord is left unplugged for about 2 weeks, the memorized contents will be cleared.
Should this happen, memorize them again.

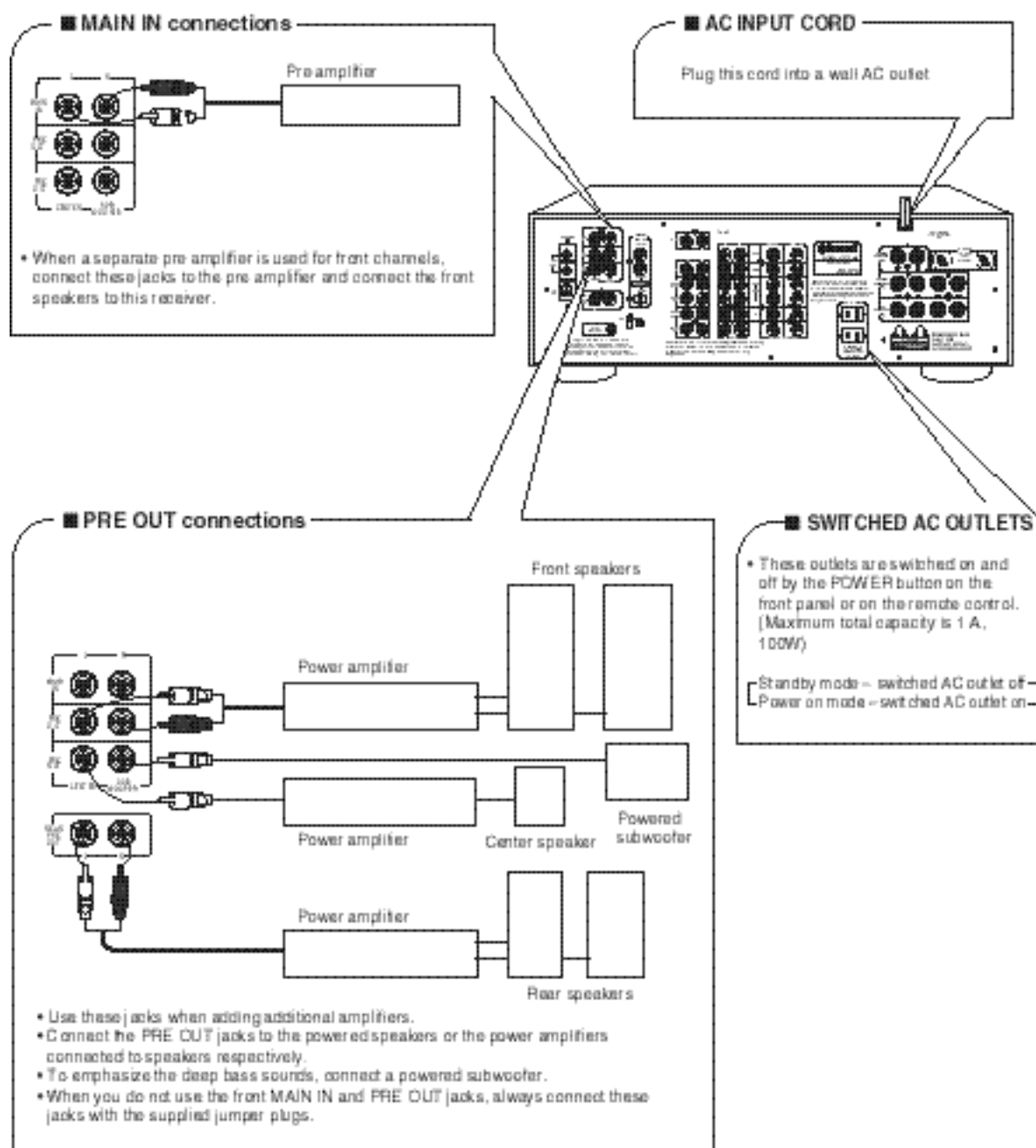




Caution: The Coaxial Digital Input LED may stay illuminated even after a digital signal is removed from the input. Turning off the receiver will re-set this indicator and allow it to properly report the signal status at the input.

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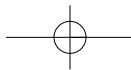
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Diagram of the Pioneer 1000 remote control interface with labels for various buttons and indicators:

- VCR 1 RECORD SOURCE DISPLAY
- CINEMA BASS INDICATOR
- STEREO INDICATOR
- TAPE 2 MONITOR INDICATOR
- TUNED INDICATOR
- AUT INDICATOR
- MEMORY INDICATOR
- PRESET INDICATOR
- 100% VOL
- 70% VOL
- 50% VOL
- 30% VOL
- 10% VOL
- 0% VOL
- 100% BASS
- 70% BASS
- 50% BASS
- 30% BASS
- 10% BASS
- 0% BASS
- 100% TREBLE
- 70% TREBLE
- 50% TREBLE
- 30% TREBLE
- 10% TREBLE
- 0% TREBLE
- 100% CONTRAST
- 70% CONTRAST
- 50% CONTRAST
- 30% CONTRAST
- 10% CONTRAST
- 0% CONTRAST
- 100% BRIGHTNESS
- 70% BRIGHTNESS
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- 100% THEATER
- 70% THEATER
- 50% THEATER
- 30% THEATER
- 10% THEATER
- 0% THEATER
- 100% SLEEP INDICATOR
- CHURCH INDICATOR
- STADIUM INDICATOR
- HALL INDICATOR
- THEATER INDICATOR
- 8 Stereo INDICATOR
- Pto Logic INDICATOR
- DIGITAL INDICATOR

- The front A/V jacks may be also connected to an additional video component such as a camcorder, a video deck or a video game player, etc.
 - Use the S-VIDEO jack to make connection to video component with the S-VIDEO out jack.
- A signal input into the S-VIDEO jack will be output in only the S-VIDEO jack and a signal input into the normal VIDEO jack will be output in only the normal VIDEO jack.



Universal Remote Control

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Notes: For enhanced Universal Remote Programming instructions and product identification codes, please refer to the RNC-100 operating manual inclosed with RNC-100 Universal Remote Control.

This remote control has 3 operating modes as follows;

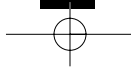
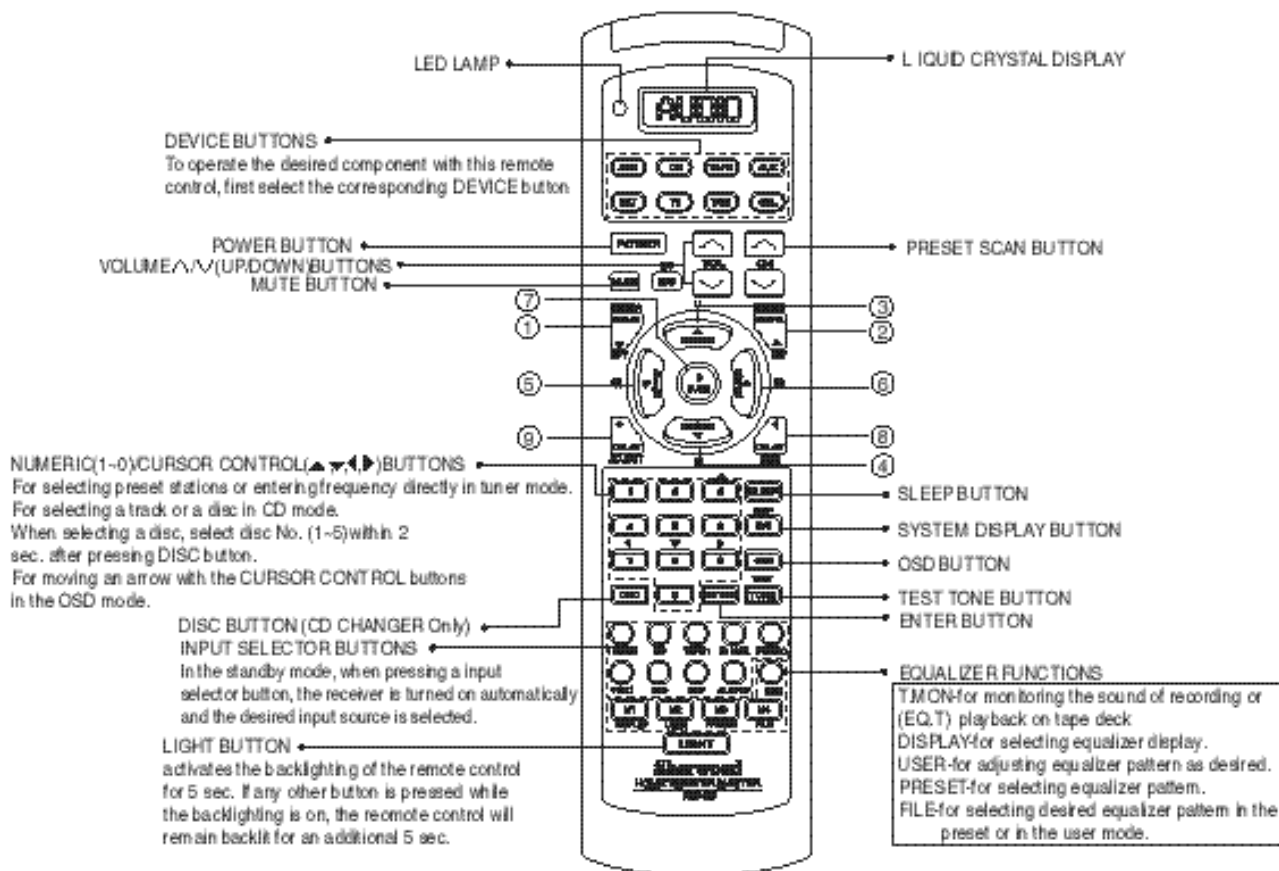
- OSD (On Screen Display) mode: Allows you to look at information about basic operation of this receiver on your monitor TV and to operate this receiver by moving an arrow that appears on the screen of your monitor TV.
- Sherwood mode: Allows you to operate this receiver, and other Sherwood components like cassette decks, CD players and equalizers, etc. (To operate other Sherwood components, you should make the DIGI LINK connections between them)
- Non-Sherwood mode: Allows you to operate the non-Sherwood audio and video components.

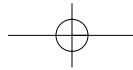
Notes:

- The set-up code for each component should be entered before operation.
For set-up codes (product identification codes), please refer to "Set-Up Code Tables" in the operating manual of this remote control.
- Some operation buttons have different functions according to each operation mode.
- Be sure to set the remote control to the correct mode before operation.



- This section explains the basic functions for Sherwood or OSD mode. For non-Sherwood mode, refer to the operating manual of this remote control.
- All Sherwood components bearing the DIGI LINK (II or III) logo can be used with this remote control.
- For system remote control operation, first make the DIGI LINK connections between Sherwood components.
- The numbered buttons on the remote control have different functions in different modes. For details, refer to the "FUNCTION TABLE of the NUMBERED BUTTONS" on next page.





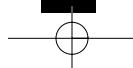
■ FUNCTION TABLE of the NUMBERED BUTTONS.

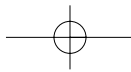
Component control selection buttons Button symbols		 (for receiver)		
①		SUBWOOFER LEVEL DOWN	REPEAT A < • > B	DECK SELECTOR A
②		SUBWOOFER LEVEL UP	INTRO SCAN	DECK SELECTOR B
③		CENTER LEVEL UP	PAUSE	PAUSE
④		CENTER LEVEL DOWN	STOP	STOP
⑤		REAR LEVEL DOWN	BACKWARD SKIP	REWIND
⑥		REAR LEVEL UP	FORWARD SKIP	FAST-FORWARD
⑦		SURROUND MODE	PLAY	FORWARD PLAY
⑧		DELAY TIME	—	REVERSE PLAY
⑨		DELAY ADJUST	—	RECORD

- When using the Sherwood DIGI LINK III components, by pressing PLAY, etc. on CD player or tape deck, CD or TAPE 2 MONITOR is selected automatically without selecting the input source and then PLAY, etc. starts. In this case, to listen to TAPE 1, switch off the TAPE 2 MONITOR and select the TAPE 1.

Notes:

- Some functions for CD player, tape deck or equalizer may not be available.
- For details about functions, refer to the operating instructions of each component.
- The TV/OFF and the CH ∇ buttons may not be available for this receiver.





1

Turn on the components you want to operate.

2

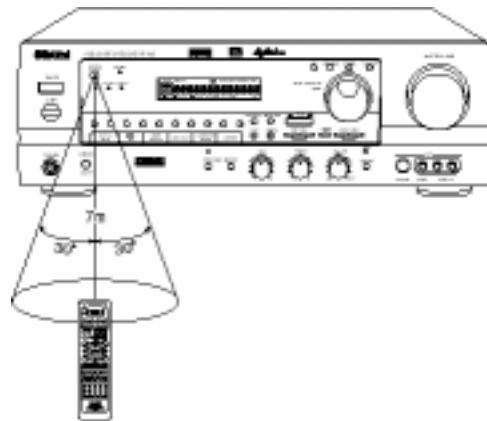
Press the DEVICE button on the remote control corresponding to the component you want to operate.

3

Press the button corresponding to the operation you want while aiming the remote control at the REMOTE SENSOR on the component.

- When operating a Sherwood CD player or tape deck using the system remote control, aim the remote control at the REMOTE SENSOR on this receiver.

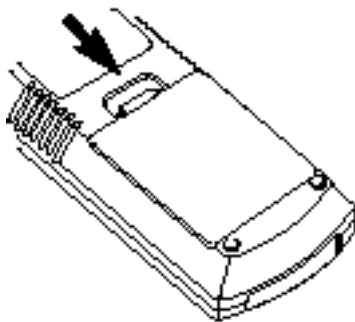
- Use the remote control within a range of about 7 meters (23 feet) and angles of up to 30 degrees aiming at the remote sensor.



- When "L-BAT" flickers on the LCD, the old batteries should be replaced.
- When changing the batteries, load the new batteries within 10 sec. to maintain existing programming. If the batteries are removed for a longer period of time, the remote control might lose its memory and require reentering.

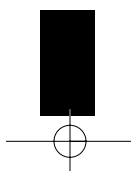
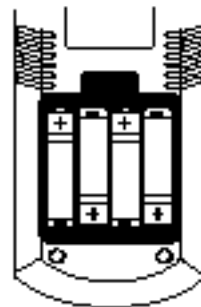
1

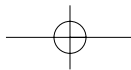
Remove the cover.



2

Load 4 AAA 1.5V batteries matching the polarity.

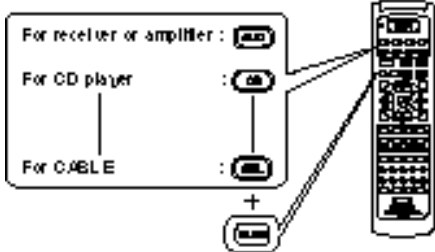
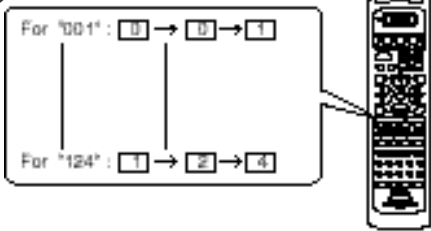
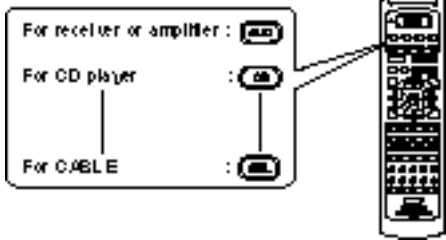


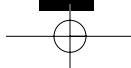


ENTERING A SET-UP CODE

- Before operating audio and video components using the remote control supplied with this receiver, the set-up code for each component should be entered.
- For system remote control operation, the set-up code for each Sherwood component such as CD player and tape deck is "001" respectively. Enter each set-up code for CD player and tape deck doing steps 3, 4 and 5 as follows.

ENGLISH

1 Turn on the component you want to control. Example) When entering the set-up code for this receiver, turn on this receiver.	2 Find the set-up code for your component referring to "Set-Up Code Tables" in the operating manual of this remote control. Example) The 3 digit set-up codes for the Sherwood "Audio" are 001, 002, ... (Hint: The correct set-up code for this receiver is "001".)
3 Press the corresponding DEVICE and the MUTE buttons simultaneously.  • Then "SET" appears on the LCD of the remote control for 20 seconds.	4 Enter the 3 digit set-up code aiming the remote control at the REMOTE SENSOR on the component.  • Your component will be turned off when the correct set-up code is entered. • Continue to enter the corresponding codes until your component turns off. • If "SET" disappears, start from the step 3 again.
5 Press the corresponding DEVICE button to store the set-up code.  • Then "PASS" will flicker on the LCD.	6 Operate the component using the corresponding function buttons on the remote control such as POWER, CH $\wedge$ / $\vee$ and VOL $\wedge$ / $\vee$ buttons, etc. • If any of the buttons do not perform as they should, start from step 1 again to enter the next set-up code. Notes: Some audio and video components have separate buttons for POWER ON/OFF. In this case, press the corresponding DEVICE button to turn the component ON and press the POWER button to turn the component OFF. • If there is no correct set-up code or if the Manufacturer/Brand for your component is not listed in "Set-Up Code Tables" in the operating manual of this remote control, please use the "Auto Search Method" on page 10 in the operating manual of this remote control. • Although each set-up code is designed to work with many different modes, certain codes may not work with some models. (Also, certain codes may only operate some of the functions available on a given model.)
7 Repeat the above steps 1 to 6 for each of your other components.	



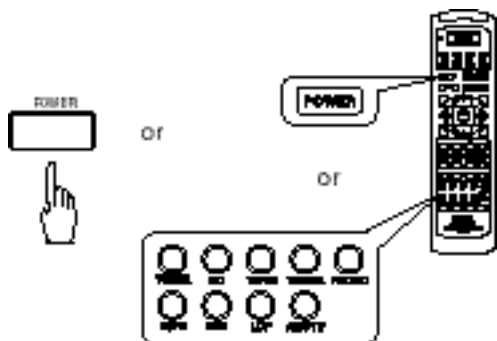
Operations

Note: Before operating this receiver with the supplied remote control, refer to "Universal Remote Controls" on page 8 for details about operation.

LISTENING TO A PROGRAM

1

Turn the power on.



- Each time the POWER button is pressed, the receiver is turned on to enter the operating mode or off to enter the standby mode.
- In the standby mode, if the INPUT SELECTOR button is pressed on the remote control, the receiver is turned on automatically and the desired input is selected.
- In the standby mode, the STANDBY indicator lights up. This means that the receiver is not disconnected from the AC outlet and a small amount of current is retained to support the memorized contents and operation readiness.

2

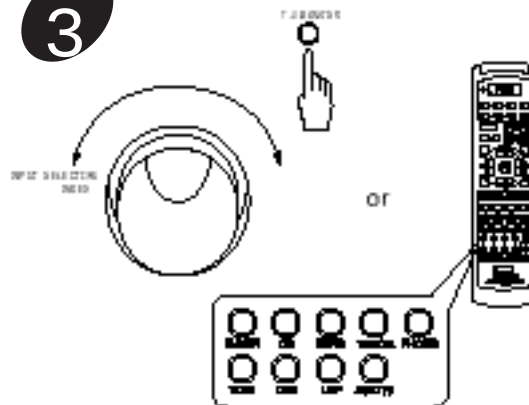
Switch the speakers on.



- Then sound can be heard from the speakers connected to the speaker terminals.
- When using the headphone for private listening, press the SPEAKER switch again to switch the speakers off.

3

Select the desired input source.



- Each time the INPUT SELECTOR/INDEX knob is rotated, the input source changes as follows:

PHONO ↔ TUNER ↔ CD PLAYER ↔ TAPE 1
(frequency display)
AUX/TV ↔ VCR1 ↔ LD PLAYER ↔ DVD

- When the TAPE 2 MONITOR button is set to on and "TAPE 2M" indicator lights up, other inputs can not be heard from the speakers.
To listen to a input source other than TAPE 2 MONITOR, be sure to set the TAPE 2 MONITOR button to off.

TAPE 2 MONITOR function

You can connect either a tape deck or a graphic equalizer to the receiver's TAPE 2 MONITOR jacks. When listening to the component connected to these jacks, set the TAPE 2 MONITOR button to on. If you connect a 3-head tape deck, you can listen to the sound being recorded during recording, instead of the source sound.

For further details, refer to the operating instructions of the component connected.

When the AUX/TV is selected as input source

- Select the front AUX or the rear TV.



- If the front AUX is selected, the FRONT AUX indicator lights up.

When CD, DVD, LDP or AUX/TV is selected as input source

- Select the digital (or the analog) input connected as desired.



- Each time this button is pressed, the corresponding input is selected as follows;

— In the DTS mode
→ OPTICAL → COAXIAL

— In the Dolby Digital(AC-3) mode: Not available for CD
→ (RF: LDP only) → OPTICAL → COAXIAL

- To play back the laser disc encoded the Dolby Digital(AC-3) format in the Dolby Digital(AC-3) mode, you should select the RF input as the desired digital input.

— in the normal stereo or a surround mode other than the DTS and Dolby Digital(AC-3) modes.

→ OPTICAL → COAXIAL → ANALOG

- When LDP as input source and the normal stereo mode are selected respectively, the RF input should be selected to play back the laser disc encoded the Dolby Digital(AC-3) mode in the 2-CH downmix mode.
- When playing back Dolby Digital(AC-3) program sources in the normal stereo mode, it enters the 2-CH downmix mode automatically, not the normal stereo operation. (For details, refer to “Downmixing into 2 front channels” on page 18.)

Notes :

- When the selected optical or coaxial digital input is not connected, the selected DIGITAL INPUT indicator is flickering, meaning no sound. (Refer to “Select the desired surround mode” on page 15.)
- When the DTS or Dolby Digital(AC-3) mode is selected, the component connected to the selected digital input can be heard.

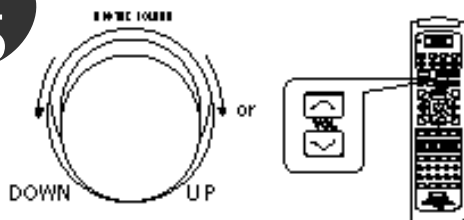
4

Operate the selected component for playback.

- When playing back the program sources with surround sound, refer to “Enjoying surround sound” on page 15.

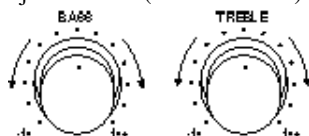
5

Adjust the (overall) volume.



6

Adjust the tone (bass and treble).



Note : Extreme settings at high volume may damage your speakers.

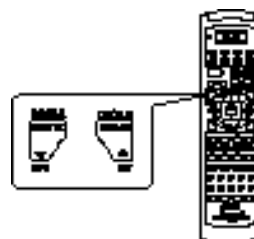
7

Adjust the stereo balance between the left and the right channels.



8

Adjust the subwoofer level.



- It is adjustable only when a powered subwoofer is connected and the subwoofer is set to “YES”. (Refer to “Adjusting the speaker settings” on page 16)

9

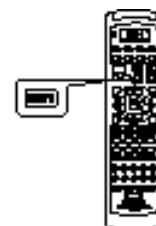
To increase the bass sound.



- Press it again to cancel.

10

To mute the sound.



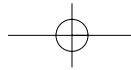
- “MUTE” will flicker.
- To resume the previous sound level, press it again.

11

To listen with the headphones.



- Ensure that the SPEAKER ON/OFF switch is set to off.



SURROUND SOUND

- The R-945 incorporates a sophisticated Digital Signal Processor that allows you to create optimum sound quality and sound atmosphere in your personal Home Theater.

Surround modes

This receiver has 8 different surround modes to allow you to enjoy surround sound with various program sources: DTS, DOLBY DIGITAL(AC-3), DOLBY PRO LOGIC, DOLBY 3 STEREO, THEATER, HALL, STADIUM, CHURCH.

DTS (Digital Theater System) : Allows you to enjoy 5.1 (or 6) discrete channels of high quality digital audio from DTS program sources bearing the “



” or “HIGH DEFINITION SURROUND” trade mark such as laser discs, DVD and compact discs, etc. DTS Digital Surround delivers up to 6 channels of transparent audio (which means identical to the original masters) and results in exceptional clarity throughout a true 360° soundfield.

“DTS” and DTS Digital Surround are trademarks of Digital Theater Systems, Inc.

Note: The DTS program sources should be played back in the DTS mode. If not, it will sound like continuous noise.

DOLBY DIGITAL(AC-3) : Allows you to enjoy up to 5.1 channels of digital surround sound from Dolby

Digital(AC-3) program sources bearing the “



” trademark such as laser discs. Dolby Digital(AC-3) provides better sound quality, improved dynamic range and great sense of direction, compared with the conventional Dolby surround. Now, you are able to enjoy real Home Theater sound in your home.

DOLBY PRO LOGIC : This receiver incorporates the Dolby Pro Logic Surround Decoder which has the same functions for playback as movie theaters and gives a theater - like experience in your home, naturally reproducing the audio sound field. Use with Dolby Pro Logic program sources bearing the “



” trademark such as video cassette tapes or laser discs.

DOLBY 3 STEREO : Combining the rear speaker signal with that of the front speakers allows you to enjoy a regenerated sound field which has comparatively more presence and a more expansive feeling from the 3 front channels (front L, front R and center speakers) than that of ordinary stereo regeneration. Use with Dolby program sources bearing the “



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“Dolby”, “Pro Logic” and the double-D symbol are trademarks of Dolby Laboratories.

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THEATER : This mode provides the effect of being in a movie theater when watching a movie source that has a stereo sound track.

HALL : This mode provides the ambience of a concert hall for classical music sources such as orchestral, chamber music or an instrumental solo.

STADIUM : This mode provides the expansive sound field. For music sources like a rock concert, you will feel as if you were actually at the live concert. For sports programs such as a baseball game, you can enjoy a powerful sound, thus obtaining the true stadium effect.

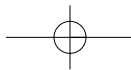
CHURCH: This mode provides the ambience of a church for baroque, string orchestral and choral group music.

Delay time

The sound heard in a place such as a concert hall or a movie theater consists of the direct sound that reaches our ears directly from the sound source and the reflected sound that is indirectly reflected off from walls, floor and ceiling. The reflected sound reaches our ears slightly later than the direct sound. The delay time is the time difference between the direct sound and the reflected sound. The optimum delay time will be different according to the room size and the acoustic properties. It is recommended that you try different times to obtain the best effect.

- It is adjustable in the Dolby Digital(AC-3) and the Dolby Pro Logic modes only.



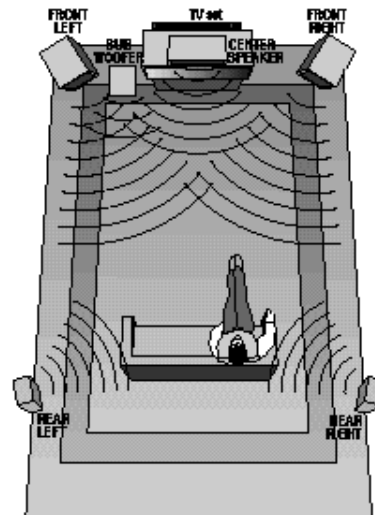


Speaker placement

To obtain the best surround sound effect in your home, place the speakers as follows;

- Front speakers : Place each front speaker about 1m (40") from the TV set.
- Center speaker : Place the center speaker either above or below the TV set to assure good visualization of center channel program.
- Rear speakers : Place the rear speakers approximately 1m above the ear level of a seated listener on the direct left and right of them or slightly behind.
- Subwoofer : Place the powered subwoofer by a wall or corner of the room for best sound.
- The ideal surround system needs all the speakers listed above and to accurately reproduce DTS Digital Surround, center and rear speakers as well as front speakers should be full range speakers.
- However, if you don't have a center speaker, a subwoofer or rear speakers, select the best possible surround mode with the available speakers.

Note: To avoid interference with the TV picture, use only magnetically shielded center and front speakers.



ENGLISH

ENJOYING SURROUND SOUND

- Surround sound effect will not work properly if the signal passes through a graphic equalizer. Please refer to your equalizer operating instructions for guidance on switching off (or defeating) the equalizer.

1

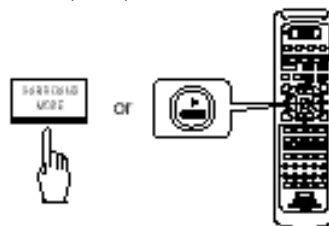
Select the desired surround mode.

- When selecting the DTS mode, the Dolby Digital (AC-3) mode is available.



- When the DTS mode is selected, the DTS indicator on the button lights up.
- The Dolby Digital (AC-3) mode is available only for DVD, LDP and AUX/TV as input source.
- The DTS mode is available only for DVD, LDP, AUX/TV and CD as input source.
- To enjoy the DTS mode or the Dolby Digital (AC-3) mode, be sure that the program source and the corresponding digital input is selected. If not, no sound will be heard.
- * When LDP is selected, the RF digital input will work only in the Dolby Digital (AC-3) mode. (Refer to "When CD, DVD, LDP or AUX/TV is selected as input source" on page 13.)

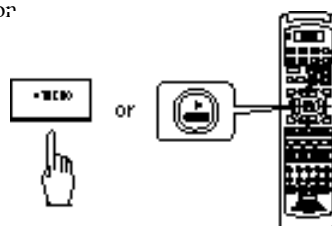
- When selecting a surround mode among the Dolby 3 stereo, Theater, Hall, Stadium and Church modes.

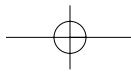


- Each time the SURROUND MODE button is pressed, the surround mode changes as follows;

→ (DTS → DIGITAL → Pro Logic) → 3 Stereo
← (OFF) ← CHURCH ← STADIUM ← HALL ← THEATER ←
“() ” : Remote control only.

- When canceling the surround mode for normal stereo operation:





Adjusting the speaker settings

- Adjusting the settings of the center speaker, rear speakers and subwoofer connected.

2

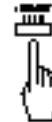
Press the SPEAKER MODE button for more than 2 seconds to enter the center speaker mode.



- In THEATER, HALL, STADIUM, CHURCH or normal stereo mode, it will enter the subwoofer mode directly.

5

Select the desired rear speaker mode.



- Each time this button is pressed, the rear speaker mode changes and flickers as follows;

YES : When using the rear speakers.

NO : When not using the rear speakers.

3

Select the desired center speaker mode.



- Each time this button is pressed, the center speaker mode changes and flickers as follows;

LARGE : When using a relatively large center speaker.

SMALL : When using a relatively small center speaker.

NONE : When not using a center speaker.

- In the DTS mode or the Dolby 3 Stereo mode, the NONE mode can not be selected. (For details, refer to "SURROUND SOUND" on page 14.)

6

Memorize the desired rear speaker mode while it flickers.



- The desired rear speaker mode is memorized and then it enters the subwoofer mode.
- If the rear speaker display goes off, repeat again from the above step 2.

4

Memorize the desired center speaker mode while it flickers.



- The desired center speaker mode is memorized and then it enters the rear speaker mode in the Dolby Digital(AC-3) mode.
- In normal stereo mode and other surround modes except for Dolby Digital(AC-3) mode, it enters the subwoofer mode directly.
- If the center speaker display goes off, repeat again from the above step 2.

7

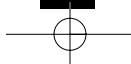
Select the desired subwoofer mode.

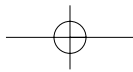


- Each time this button is pressed, the subwoofer mode changes and flickers as follows;

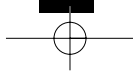
YES : When using a subwoofer.

NO : When not using a subwoofer.

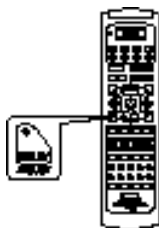




8 Memorize the desired subwoofer mode while it flickers. • If the subwoofer display goes off, repeat again from the above step 2.	Adjust the volume levels of the speakers until they all sound equally loud. • The rear L and R volume levels are adjusted respectively during the test tone function and all together while enjoying surround sounds.
Checking the speaker setting • Each time this button is pressed briefly, the setting of the center speaker, the rear speakers or the subwoofer is displayed.	Cancel the test tone function.
In DTS, Dolby Digital(AC -3), Dolby Pro Logic or Dolby 3 Stereo mode 9 Press the TEST TONE button to adjust the volume level of each speaker. • Test tone will be heard form each speaker for 2 seconds each as follows; → FRONT L→ CENTER→FRONT R→REAR R→REAR L→SUB→ • The test tone will be heard from the subwoofer only when subwoofer is set to “YES” in the DTS mode and the Dolby Digital(AC-3) mode. • Test tone is not heard from rear speakers in Dolby 3 Stereo mode. • Test tone is not heard from the speaker of which the setting is adjusted to the NONE or the NO mode.	Check the delay time to be adjusted. • The delay time will be displayed for 5 seconds. • In Dolby Digital(AC-3) mode, the corresponding delay time will be flickering. • The center delay time can be adjustable only in Dolby Digital(AC-3) mode. • The rear delay time can be adjustable only in Dolby Digital(AC-3) and Dolby Pro Logic modes.

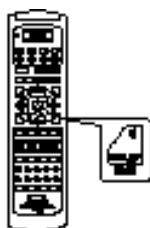


Adjust the delay time.



- Each time this button is pressed, the delay time changes in regular intervals.
- If the delay time disappears, start from the step 12 again.

Memorize the delay time.



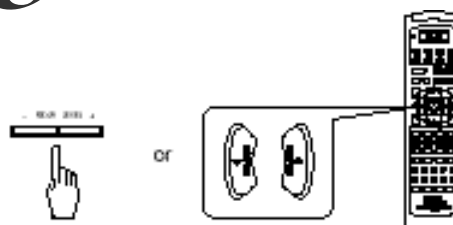
- In Dolby Pro Logic mode, the rear delay time can be memorized without pressing the DELAY TIME button.

In Dolby Digital(AC-3) mode, repeat the above steps 13 and 14 to adjust the rear delay time.

In THEATER, HALL, STADIUM or CHURCH Mode

9

Adjust the volume level of the rear speakers relative to that of the front speakers.



Downmixing into 2 front channels

- This function can be operated only when playing back the Dolby Digital(AC-3) program sources.
- During playback in the Dolby Digital(AC-3) mode, press the STEREO button.

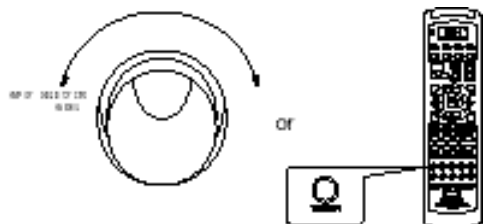


- “ DIGITAL” and “ST” indicators light up, meaning it enters the 2-CH downmix mode, and then the 5 discrete channels (front L, center, front R, rear L and rear R) are mixed down to 2 front channels.
- When playing back the Dolby Digital(AC-3) program sources in the normal stereo mode, it enters the 2-CH downmix mode automatically.
- When the settings of the center and rear speakers are adjusted to the NONE and NO modes respectively in the Dolby Digital(AC-3) mode, if playing back the Dolby Digital (AC-3) program sources, it can also enter the 2-CH downmix mode.
- When playback is stopped or interrupted, etc., the 2-CH downmix mode is not canceled but “ DIGITAL” and “ST” indicators goes off.
- To cancel the 2-CH downmix mode, select the desired surround mode.

LISTENING TO RADIO

1

Select the tuner.



Manual tuning

- Manual tuning is useful when you already know the frequency of the desired transmitter.

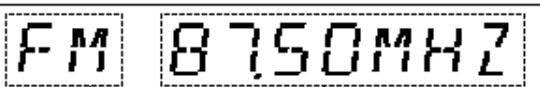
3

Press TUNING ▼ or ▲ repeatedly until the right frequency has been reached.



2

Select the desired band.



BAND

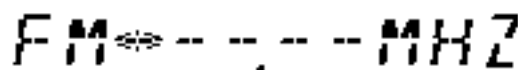
FREQUENCY

- Each time this button is pressed, the band is changed to FM or AM.
- When pressing the BAND button without selecting the TUNER, the tuner will be selected automatically.

Frequency direct tuning

Enter the frequency direct tuning mode.

3



Auto tuning

3

Press TUNING ▼ or ▲ for more than 0.5 second.



- Then AUTO appears on the display. The tuner will now search until a station of sufficient strength has been found. The display shows the tuned frequency and "TUNED".
- If the station found is not the desired one, simply repeat this operation.
- Weak stations are skipped during auto tuning.

4

Enter the frequency within 7 seconds for each digit.

Examples)

- FM 89.10MHz :
- FM 100.70 MHz :
- AM 890 kHz :
- AM 1030 kHz :
- In FM band, If "1" is pressed on the first digit, "10" is entered.
- With the numeric button on the remote control, you can also enter the frequency.
- In each digit, if it elapses 7 seconds, press the FREQUENCY DIRECT button again to enter the frequency.

Presetting radio stations

- You can store up to 30 preferred stations in the memory.

3

Tune in the desired station with auto or manual tuning, etc.

4

Press the MEMORY/ENTER button.



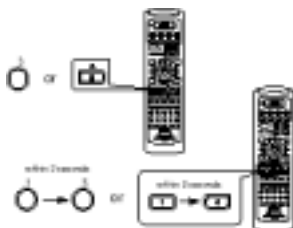
- "MEMORY" is flickering for 5 seconds.

5

Enter a preset number (1~30).

Examples)

- For "3" :



- For "15" :



- The station has now been stored in the memory
- A stored frequency is erased from the memory by storing another frequency in its place.
- If "MEMORY" goes off, press the MEMORY/ENTER button again to enter a preset number.

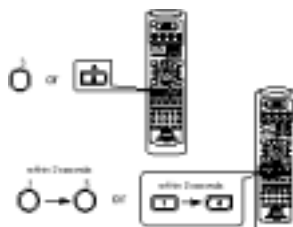
Tuning to preset stations

2

Press the desired preset number.

Example)

- For "3" :



- For "15" :



- When pressing the numeric buttons on the front panel without selecting the TUNER, the tuner will be selected automatically and the preset station will be tuned in.

Listening to FM stereo broadcasts

- While listening to FM broadcasts.



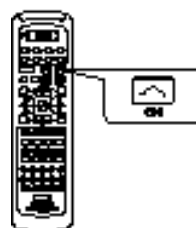
- Each time this button is pressed, the FM mode changes as follows;

- Stereo mode : "ST" lights up
- Mono mode : "ST" goes off

- When FM stereo broadcasts are poor because of weak broadcast signals, select the FM mono mode to reduce the noise, then FM broadcasts are reproduced in monaural sound

Scanning preset stations in sequence

1



- The receiver will start scanning the stations in the preset sequence and each station is received for 5 seconds.

2

At the desired station, press this button again to stop scanning.

■ MEMORY BACKUP FUNCTION

The following items, set before the receiver is turned off, are memorized.

- INPUT SELECTOR settings
- VCR 1 REC SELECTOR settings
- Surround mode settings
- Preset stations
- Video labels, etc.

Note: If the electricity fails or the AC input cord is disconnected for about 2 weeks, they are all cleared. So you should memorize them again.

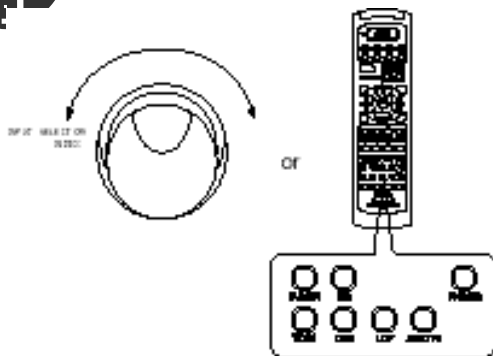
AUDIO RECORDING

- The digital signals from the optical, coaxial or RF digital input can be heard but cannot be recorded.

ENGLISH

Recording with TAPE 1

- 1 Select the desired input as recording source except for TAPE1 and TAPE 2 MONITOR.



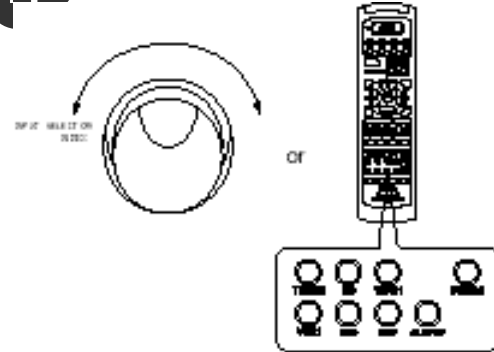
- Be sure that the TAPE 2 MONITOR indicator goes off.

- 2 Start recording on the tape deck connected to TAPE 1.

2

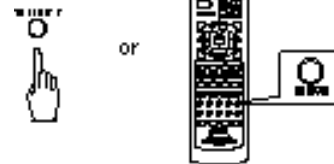
Recording with TAPE 2 MONITOR

- 1 Select the desired input as recording source except for TAPE 2 MONITOR.



- 2 Set the TAPE 2 MONITOR button to on.

2



- 3 Start play on the desired input.

3

- 3 Start recording on the tape deck connected to TAPE 2 MONITOR.

3

- 4 Start play on the desired input.

4

- When the TAPE 1 is selected as recording source, dubbing will start from TAPE 1 to TAPE 2 MONITOR.
- It is not possible to dub from TAPE 2 MONITOR to TAPE 1.
- For tape 2 monitor function, refer to "TAPE 2 MONITOR function" on page 12.

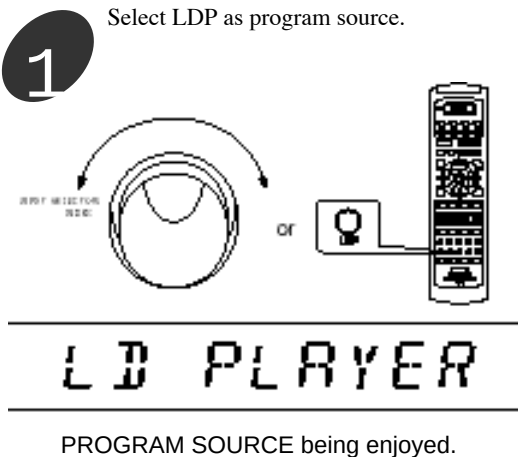
RECORDING WITH VCR1

- The digital signals from the optical, coaxial or RF digital input can be heard but cannot be recorded.

Dubbing from video components to VCR 1

Example) When dubbing from LD player to VCR 1

1 Select LDP as program source.



LD SELECT (PUSH)

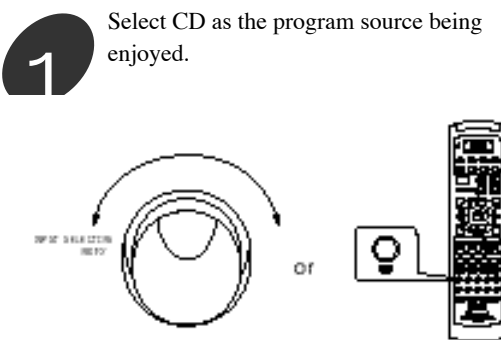
LD PLAYER

PROGRAM SOURCE being enjoyed.

Listening to other audio inputs during dubbing

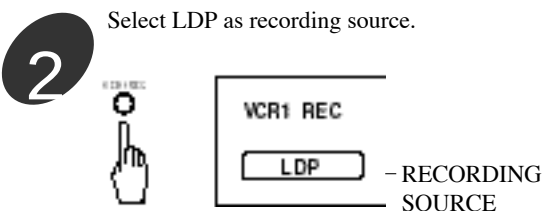
Example) When listening to CD during dubbing from LDP to VCR 1.

1 Select CD as the program source being enjoyed.



CD SELECT (PUSH)

2 Select LDP as recording source.



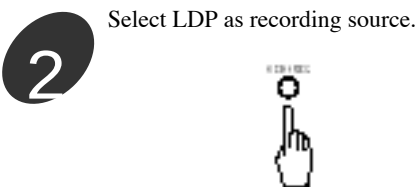
VCR1 REC

LDP - RECORDING SOURCE

- Each time this button is pressed, the recording source changes as follows;

→ DVD → LDP → AUX → SOURCE →

2 Select LDP as recording source.



VCR1 REC

3 Start recording on the VCR 1.

3 Start recording on the VCR 1.

4 Start play on the LDP.

4 Start play on the LDP.

- The audio and video signals from LDP will be dubbed onto the tape in VCR 1 and you can enjoy LDP on the TV set and from the speakers.

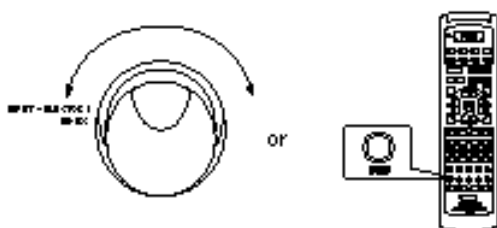
5 Start play on the CDP.

- The audio and video signals from LDP will be dubbed onto the tape in VCR 1 and you can listen to CD.

Enjoying other video inputs during dubbing

Example) When viewing DVD on the TV set and hearing its sound from the speakers during dubbing from LDP to VCR 1.

1 Select DVD as the program source.



2 Select LDP as recording source.



3 Start recording on the VCR 1.

3

4 Start play on the LDP.

4

5 Start play on the DVD.

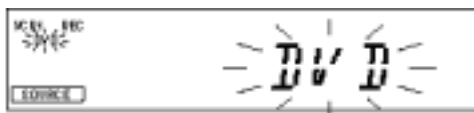
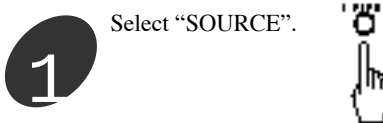
- The audio and video signals from LDP will be dubbed onto the tape in VCR 1 and you can enjoy DVD.

5

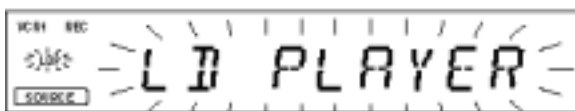
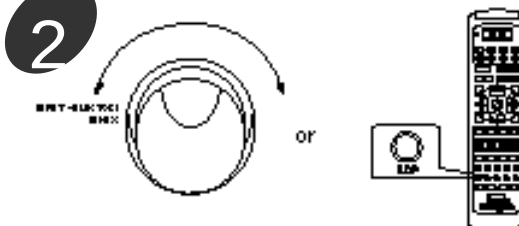
Dubbing and enjoying the audio and video signals separately

Example) When dubbing and enjoying LD video signal and CD audio signal.

Select "SOURCE".



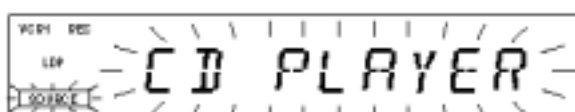
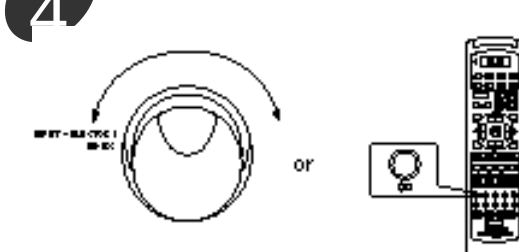
2 Select LDP as video source within 5 seconds.



3 Memorize it within 5 seconds.



4 Select CD as audio source within 5 seconds.



5 Memorize it within 5 seconds.  VIDEO SOURCE AUDIO SOURCE In the above step, if 5 seconds elapses, repeat again from the step 1.	6 Start recording on the VCR 1. 7 Start play on the LDP. 8 Start play on the CDP. The audio signal from CDP and the video signal from LDP will be dubbed onto the tape in VCR 1 and you can enjoy them on the TV set and from the speakers.
---	---

OTHER FUNCTIONS

Compressing the dynamic range (Dolby Digital (AC-3) mode only)

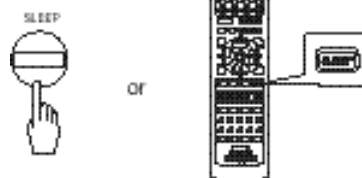
- This function compresses the dynamic range of previously specified parts of the Dolby Digital (AC-3) sound track (with extremely high volume) to minimize the difference in volume between the specified and non-specified parts. This makes it easy to hear all of the sound track when watching movies at night at low levels.



- Then the DYNAMIC RANGE indicator lights up.
- Press again to cancel.
- In some Dolby Digital (AC-3) softwares, this function may not be used.

Operating the sleep timer

- The sleep timer allows the system to continue to operate for a specified period of time before automatically shutting off.
- To set the receiver to automatically turn off after the specified pe

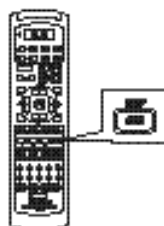


- Each time this button is pressed, the sleep time changes as follows ;

→ 10 → 20 → 30 → 60 → 90 → OFF
Unit : Minutes

- When the sleep time is selected, all display panels of Sherwood components connected by the DIGILINK III are dimly lit.

Checking the brightness of the fluorescent displays



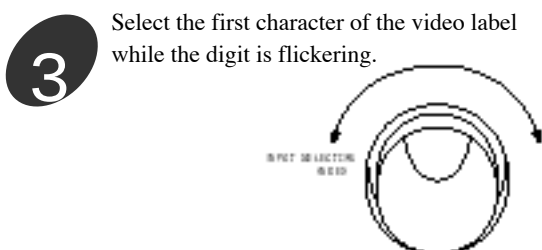
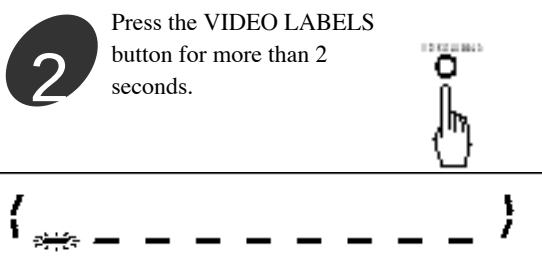
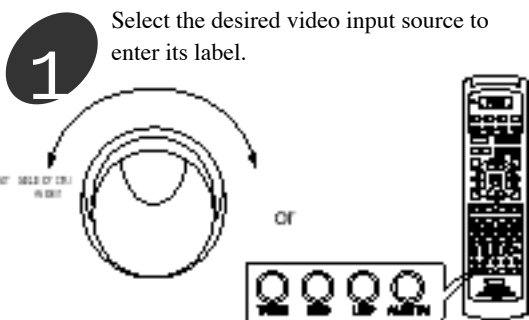
- Each time this button is pressed, the brightness of all fluorescent displays of Sherwood components connected by the DIGI LINK III changes together as follows;

→ ON → dim → OFF

- In the display OFF mode, when any button is pressed, the receiver switches to the display ON mode.

Entering video labels

- This function can be operated only on video input sources such as DVD, LDP, VCR 1 and AUX/TV.

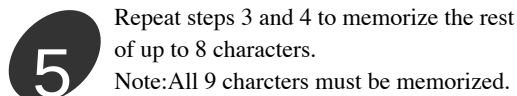
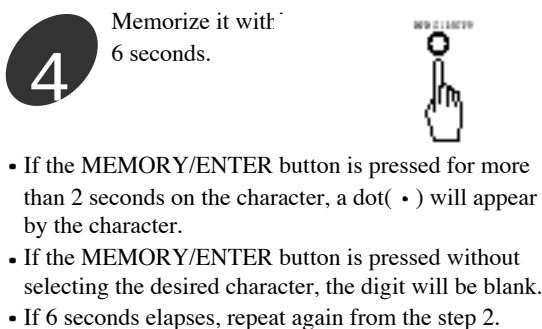


- Each time the INPUT SELECTOR/INDEX knob is rotated, the characters changes as follows ;

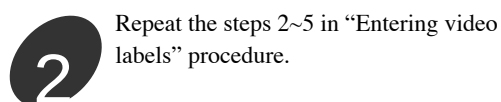
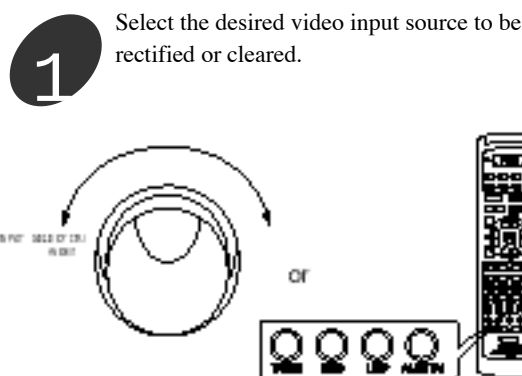
26 Capital Letters : A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z

10 Arabic Numerals : 1 2 3 4 5 6 7 8 9 0

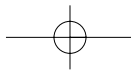
9 Special Marks : ' < > * + , - / \



Rectifying or clearing a video label



- To clear a video label, make a blank on each digit, then the video label is cleared and its factory video input source will be displayed.



Using the OSD

This receiver incorporates an OSD (On screen display) function to provide information about basic operation of this receiver and to simplify the set-up procedures.

The OSD function uses a monitor TV connected to this receiver as a display and has two kinds of display modes such as current status display and menu screen.

Notes:

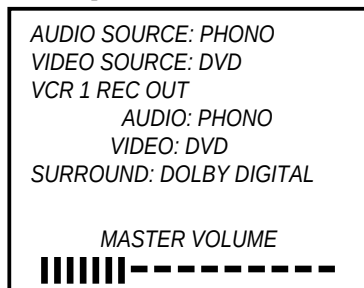
- When a monitor TV is connected to this receiver with the S-VIDEO cord, the OSD function is not available.
- If any on screen display is shown on the monitor TV while recording with VCR, the on screen display is not recorded.
- If the OSD button is pressed for more than 3 seconds, the present color system is shown on the fluorescent display. If it is different from yours, press the OSD button briefly to change to the NTSC color system and the MEMORY/ENTER button to memorize.

CURRENT STATUS DISPLAY

This mode shows the basic set-ups and the status during the operation of this receiver. The following items will be shown corresponding to each operation mode.

- The on screen display will automatically disappear in 3 sec. for power on or 10 sec. for other operations.

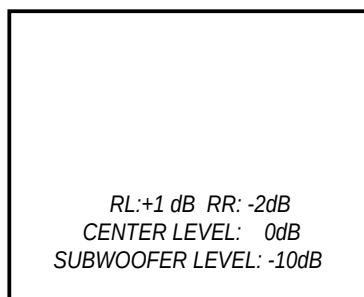
- When the power of this receiver is turned on or the OSD button is pressed.



Basic set-up display

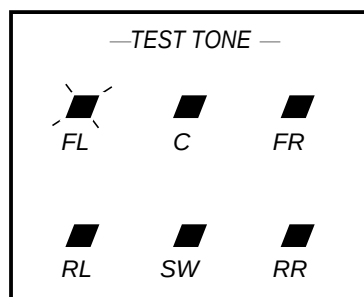
- When the OSD button is pressed, the OSD indicator on the button lights up.

- When the surround (rear, center, subwoofer) levels are adjusted.



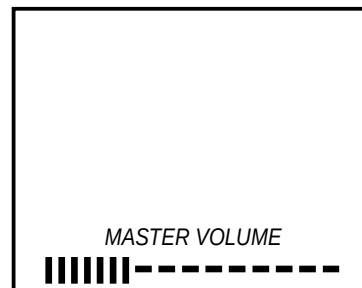
Surround level display

- When the TEST TONE button on the remote control is pressed.



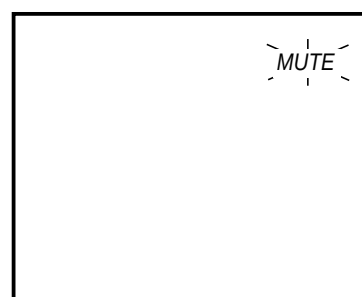
Test tone display

- When the (overall) volume is adjusted



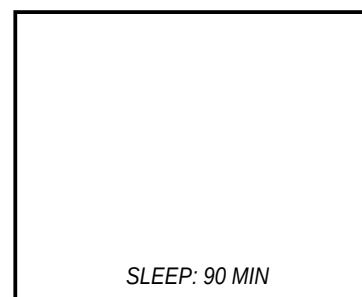
Volume display

- When the MUTE button on the remote control is pressed.

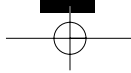


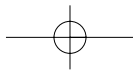
Mute display

- When the SLEEP button on the remote control is pressed.

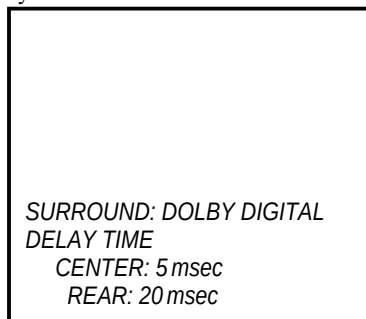


Sleep display



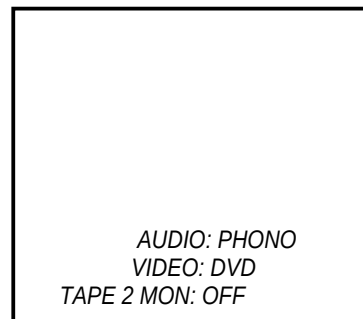


- When selecting the desired surround mode or adjusting the delay time.



Surround mode and delay time display

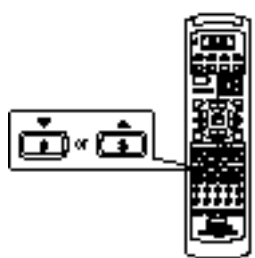
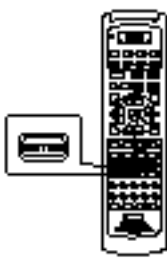
- When selecting the desired input source.

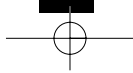


Input source display

MENU SCREEN

- This mode is used to set the input selector, the VCR 1 REC selector, the surround mode, the speaker mode and the test tone. The menu screen operation is performed moving an arrow with the CURSOR control (▲, ▼, ◀, ▶) buttons on the remote control.

1 Turn the menu screen on  — MAIN MENU — → INPUT SELECTOR VCR1 REC SELECTOR SURROUND MODE SPEAKER MODE TEST TONE MENU OFF	2 Select the desired menu using the CURSOR UP (▲) or DOWN (▼) button. 
3 Confirm your selection.  • Then the items of the selected menu displays.	■ When selecting the INPUT SELECTOR — INPUT SELECTOR — → VIDEO: DVD AUDIO: PHONO TAPE2 MON: OFF GO TO MAIN MENU



■ When selecting the VCR1 REC SELECTOR

— VCR1 REC SELECTOR —
 → VIDEO: DVD
 AUDIO: PHONO
 GO TO MAIN MENU

■ When selecting the SURROUND MODE

— SURROUND MODE —
 → SURROUND: DOLBY DIGITAL
 DELAY TIME
 CENTER: 1 msec
 REAR: 5 msec
 GO TO MAIN MENU

■ When selecting the SPEAKER MODE

— SPEAKER MODE —
 → CENTER: LARGE
 REAR: YES
 SUBWOOFER: OFF
 GO TO MAIN MENU

■ When selecting the TEST TONE MODE

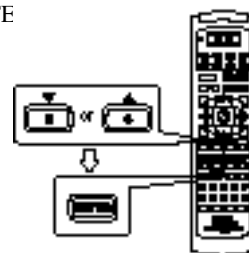
— TEST TONE —
 →    RR: +1dB
 FL C FR RL: 0dB
 CENTER: 0dB
 SUBW: -5dB
   RL SW RR
 GO TO MAIN MENU

4 Select the desired item using the CURSOR UP(▲) or DOWN (▼) button and change the conditions of the items using the CURSOR LEFT (◀) or RIGHT (▶) button.

Notes:

- In the SURROUND MODE, when a delay time shows “□” indication, it can not be adjusted.
- In the TEST TONE mode, you can hear the test tone from each speaker using the CURSOR UP(▲) or DOWN (▼) button as well as the CURSOR LEFT (◀) or RIGHT (▶) button. The test tone from a speaker can not be heard corresponding to the surround mode or the speaker setting.

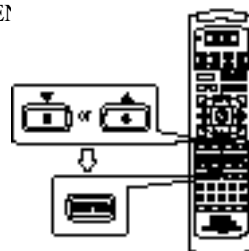
5 When all the desired conditions have been made, select the “GO TO MAIN MENU” using the CURSOR UP(▲) or DOWN (▼) button and then press the ENTER button using the ENTER button.



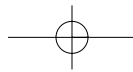
- Then the MAIN MENU will be displayed.

6 Repeat the above steps 2~5 to change the conditions of the items in another menu.

7 When all the conditions in the desired menu have been made, select the “MENU OFF” using the CURSOR UP(▲) or DOWN (▼) button and then press the ENTER button using the ENTER button.



- Then the menu screen will be turned off.



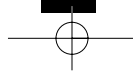
Troubleshooting Guide

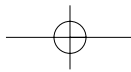
If a fault occurs, run through the table below before taking your receiver for repair.

If the fault persists, attempt to solve it by switching the receiver off and on again. If this fails to resolve the situation, consult your dealer. Under no circumstances should you repair the receiver yourself as this will invalidate the guarantee!

ENGLISH

PROBLEM	POSSIBLE CAUSE	REMEDY
No power	• The AC input cord is disconnected. • Poor connection at AC wall outlet or the outlet is inactive.	• Connect cord securely. • Check the outlet using a lamp or another appliance.
No sound	• The speaker cords are disconnected. • The master volume is adjusted too low. • The MUTE button is pressed to ON. • Speakers are not switched on. • The digital input is not selected correctly • Incorrect selection of input source. • Incorrect connections between the components.	• Check the speaker connections. • Adjust the master volume. • Press the MUTE button to cancel the muting effect. • Press the SPEAKER ON/OFF switch to ON. • Select the digital input correctly. • Select the desired input source correctly. • Make connections correctly.
No sound from the rear speakers	• Surround mode is switched off. • Master volume and rear level are too low. • Monaural source is used. • Dolby 3 Stereo mode is selected.	• Select a surround mode. • Adjust master volume and rear level. • Select a stereo or surround source. • Select the desired surround mode.
No sound from the center speaker	• DTS,Dolby Digital(AC-3), Dolby Pro Logic or Dolby 3 Stereo mode is not selected. • Master volume and center level are too low.	• Select the desired surround mode. • Adjust master volume and rear level.
Stations cannot be received	• No antenna is connected. • The desired station frequency is not tuned in. • Antenna is in wrong position.	• Connect an antenna. • Tune in the desired station frequency. • Move antenna and retry tuning.
Preset stations cannot be received	• An incorrect station frequency has been memorized. • The memorized stations are cleared.	• Memorize the correct station frequency. • Memorize the stations again.
Poor FM reception	• No antenna is connected. • The antenna is not positioned for the best reception.	• Connect an antenna. • Change the position of the antenna.
Continuous hissing noise during FM reception, especially when a stereo broadcast is received.	• Weak signals.	• Change the position of the antenna. • Install an outdoor antenna.
Continuous or intermittent hissing noise during AM reception, especially at night.	• Noise is caused by motors, fluorescent lamps or lightning, etc.	• Keep the receiver away from noise sources. • Install an outdoor AM antenna.
Remote control unit does not operate.	• Batteries are not loaded or exhausted. • The remote sensor is obstructed.	• Replace the batteries. • Remove the obstacle.
Other Sherwood components do not react to remote control commands.	• DIGI LINK connections are not made properly.	• Make proper DIGI LINK connections.
A video label cannot be displayed.	• Multifunction due to external influences such as static electricity, etc.	• Clear it using "To clear a video label" (Refer to "Rectifying or clearing a video label" on page 25)





Specifications

ENGLISH

■ AMPLIFIER SECTION

- Power output, stereo mode, 8 Ω , THD 0.2%, 20 Hz~20 kHz.....2 $\times$ 100 W
- Total harmonic distortion, 8 Ω , 100 W, 1 kHz.....0.09 %
- Intermodulation distortion
60 Hz: 7 kHz= 4:1 SMPTE, 8 Ω ,100 W0.1 %
- Input sensitivity, 47 k Ω
Phono3.5 mV
Line (CD, TAPE, VIDEO)200 mV
- Signal to noise ratio, IHF "A"weighted
Phono72 dB
Line (CD, TAPE, VIDEO)95 dB
- Frequency response
Line (CD, TAPE, VIDEO), 10 Hz~80 kHz.....+ 0 dB, -3 dB
- Output level
TAPE REC, 2.2 k Ω 200 mV
PRE OUT(Front, center, rear, Subwoofer), 1 k Ω950 mV
- Bass/Treble control, 100 Hz/10 kHz $\pm$ 10 dB
- Surround mode, only channel driven
Front power output, 8 Ω , 1 kHz.....2 $\times$ 100 W
Center power output, 8 Ω , 1 kHz.....100 W
Rear power output, 8 Ω , 1 kHz.....2 $\times$ 100 W

■ DIGITAL AUDIO SECTION

- Sampling frequency32,44.1,48 kHz
- Digital input level
Coaxial, 75 Ω 0.5 Vp-p
Optical, 660 nm-15~-21 dBm

■ FM TUNER SECTION

- Tuning frequency range.....87.5~107.9 MHz
- Usable sensitivity, THD 3%, S/N 30 dB11.2 dBf
- 50 dB quieting sensitivity, mono/stereo15.2/38.2 dBf
- Signal to noise ratio, 65 dBf, mono/stereo.....70/65 dB
- Total harmonic distortion, 65 dBf,1 kHz, mono/stereo.....0.5/0.8%
- Frequency response, 30 Hz~15 kHz $\pm$ 1.5 dB
- Stereo separation, 1 kHz50 dB
- Capture ratio.....1.25 dB
- IF rejection ratio120 dB

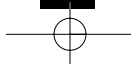
■ AM TUNER SECTION

- Tuning frequency range520~1710 kHz
- Usable sensitivity, 400 mV/m12.5 mV
- Signal to noise ratio, 80 dB/m.....51 dB
- Selectivity.....30 dB

■ GENERAL

- Power supplyAC 120 V, 60 Hz
- Power consumption.....4 A
- Switched AC outlet TOTAL 1A, 100W max.
- Dimensions (W $\times$ H $\times$ D)440 $\times$ 140 $\times$ 380 mm(17-3/8 $\times$ 5-1/2 $\times$ 15 inches)
- Weight (Net).....16.3 kg(35.9 lbs)

Note: Design and specifications are subject to change without notice for improvements.



Set-up Code Tables

■ AUDIO(Receivers, Preamplifiers, Surround processors, etc.)

Maker/Brand	Set-up codes
ADCOM	082 092 225 161
AIWA	018 104 170 188 202 203 213 211
AKAI	138 189
AMC	125 126 127 128
ANAM	081
ANGSTROM	142
ARCAM	141
AUDIO ACCESS	147
AUDIO ALCHEMY	135
AUDIO DESIGN	084 087 088 089 194 221 011
AUDIO MATRIX	167
AUDIO FILE	071
AUDIO TECHNICA	134
B & K	096 097
BOSE	070 170
CARVER	028 053 061 183 201 214 226 180 182 185
CASIO	076
CHIRO	140
CINEMA SOUND	034
CITATION	148
CLARION	174
CURTIS MATHES	076
DENON	002 034 109 215 227 228 229 230 215
ENLIGHTENED AUDIO	099 098
FISHER	029 047 214 182 180 183 185
FOSGATE	062 231 232
GE	056 121
GOLDSTAR	008
HARMAN KARDON	231 232 233 254 153 154
HITACHI	020
INKEL	197
JC PENNEY	076
JENSEN	058
JVC	239 240 241 163 19 1 114
KENWOOD	026 065 066 145 146 181 190 197 192 182 207 199 183
KRELL	150 072
KYOCERA	007
LEXICON	120 234 235 236 237
LINN	124
LUXMAN	137 139 052 165 096 115 004 009
LXI	076 056
MAGNAVOX	086 164 152 208
MARANTZ	006 028 031 040 063 179 217 185 186
MCINTOSH	238
MCS	009 076 079
MERIDIAN	100 012 013
MITSUBISHI	242 243 204
MONDIAL	157 158
NAD	186 113
NAKAMICHI	111 244 245 172
NEC	176
ONKYO	017 046 064 107 108 218 187
OPTIMUS	026 041 138
PANASONIC	032 195 219 177
PARASOUND	129 130 132
PHILPS	037 249 250 251 179
PIONEER	014 033 039 044 045 050 069 159 168 209 116 220 098 198
PROCEED	144
RCA	010 048 117 156 067
REALISTIC	019 023 056 073 075 078 081 095
ROTEL	074 083 085
SAMSUNG	016
SANSUI	035 040 048 110 224 210 119
SANYO	027 047 051 059 151
SCOTT	019 081 191
SEARS	076
SHARP	026 057 094 131 174 175 181 184

Maker/Brand	Set-up codes
SHERWOOD	001 002 024 038 055 102 103 105 106
SONY	018 047 093 101 223 247 248 160 166 015
SOUNDESIGN	036
SOUNDSTREAM	118
SSI	068
SUMO	171
TAEKWANG	138
TEAC	005 019 049 081 111 212
TECHNICS	122 193 219 178 177 176
THETA DIGITAL	136
TOSHIBA	060 112
WARDS	051
YAMAHA	026 174 253 169 067 173 205 001
ZENITH	143

■ CD (Compact disc players, Mult.-disc changers, etc.)

Maker/Brand	Set-up codes
ADCOM	062 042
AIWA	059 065 088 089 105 122 170 187
AKAI	043 074 195 202
AMC	231 232
ARCAM	238
AUDIO ACCESS	119 147
AUDIO FILE	229
AUDIO TECHNICA	046
BSR	037 057
CALIFORNIA AUDIO	008 103
CAPETRONIC	063
CARRERA	057 080
CARVER	001 009 044 050 086 130 134 135 138 139 203 204
CASIO	111 116 182
CLARINETTE	116 182
CREEK	159
CROWN	035
DENON	002 123 206 207
EMERSON	042 045 069 087 102
FISHER	008 009 016 040 050 001 134
FRABA	111
FUNAI	120
GENEXXA	010 069 090 102
GOLDSTAR	080
HAITAI	093
HARMAN KARDON	018 033 047 208
HITACHI	042 087 175
INKEL	130 143 144
JC PENNY	014 061 092 141
JENSEN	158
JVC	004 022 136 213 214 163
KENWOOD	007 013 016 023 040 055 071 072 142 152 199 137
KOSS	061
KRELL	241
KYOCERA	005
LOTTE	102
LUXMAN	011 028 070 076 162
LXI	059 180
MAGNAVOX	032 044 107 121
MARANTZ	027 041 044 051 077 209 211
MCINTOSH	212
MCS	014 073 092
MEMOREX	090
MERIDIAN	094
MGA	025
MISSION	044
MITSUBISHI	121
MITSUMI	153
MODULAIRE	116 182
MONDIAL	147
NAD	006 005 067 121 215

ENGLISH

■ CD (continued)

Maker/Brand	Set-up codes
NAKAMICHI	217 218 219 095
NEC	014 062
NIKKO	046
NSM	044
ONKYO	030 038 039
OPTIMUS	010 013 029 049 050 057 058 074 081 082 083 084 085 090 093 098
PANASONIC	008 068 103 113 201 172
PARASOUND	233
PHILIPS	032 041 044 132 149 227
PIONEER	010 020 025 029 056 090 106 117 121 174 175 176
PROCEED	239
PROTON	044 228
QUASAR	008 103
RADIO SHACK	116 120
RCA	017 021 042 087 150
RCX	185
REALISTIC	042 049 050 051 098 099 102 181 182 187
ROTEL	044 161
RUNCO	127
SAE	044
SAMSUNG	021
SANSUI	044 069 128 171 190 125
SANYO	050 075
SCOTT	069 102
SHARP	013 026 031 051 066 078 099 108 152 173 183 198 199
SHERWOOD	001 003 019 051 099 096 112 115 119 166
SIGNATURE	033
SONY	048 053 081 097 109 110 126 133 177 225 226 164
SOUNDESIGN	251
SUMO	155
SYLVANIA	044
SYMPHONIC	052 104 181
TAEKWANG	074 195
TANDY	090
TEAC	015 034 036 051 079 100 101 104 131 140
TECHNICS	008 060 064 068 103 113 192 200 172 200
TECHWOOD	076
THETA DIGITAL	032 234 235
TOSHIBA	006 067 091 152 160 106 148
VECTOR RESEARCH	080
VICTO	004 022 114 124
WARDS	033 040
YAMAHA	012 024 046 054 129
YORX	116 182

■ TAPE(Tape decks, Laser disc players, DVD, etc.)

Maker/Brand	Set-up codes
AIWA	015 071 100 114
CARVER	006 008 027 024
DENON	105 227 229
FISHER	064
GOLDSTAR	011
HARMAN KARDON	233
JVC	106 116 239 240
KENWOOD	005 013 023 026 064 145 146 181 190
LINN	124
LUXMAN	035 137 139
MAGNAVOX	027

MARANTZ	014 027 056 065 087
MCINTOSH	238
MITSUBISHI	242 243
NAD	029 048
NAKAMICHI	244 245 025
ONKYO	002 012 016 017 018 019 115
OPTIMUS	025 054 055
PANASONIC	007 010 032 088 195
PHILIPS	029 087
PIONEER	003 039 047 050 066 098 222
QUASAR	007 088
SANSUI	027 113 119 224
SHARP	026 057 131 175 181
SHERWOOD	001 004 028 030 033 034
SONY	020 022 052 084 089
TEAC	009 059 212
TECHNICS	007 010 076 088 109 122 193
TOSHIBA	112
VICTOR	106
YAMAHA	012 026 031 067

■ AUX(Home theater control devices, etc.)

Maker/Brand	Set-up codes
3M	002
AIWA	004
AKAI	005
ARCHER	006
DENON	007
DMX	008
DWIN	009
EXTRON	001
FAROUDJA	053
GE	010
GOLDSTAR	057
HITACHI	011
JVC	012 054
LUTRON	013 014
MERIDIAN	035
MAGNAVOX	016
MITSUBISHI	017
NILES	018
NSM	019
ONKYO	020
PANASONIC	021
PHILIPS	022
PIONEER	023 024
POLKAUDIO	025
PROSCAN	026
RCA	027
SAMSUNG	056
SANYO	028
SCIENTIFIC ATLANTA	029
SONY	030 031 032 033
THOMPSON	034
TOSHIBA	035
TURBOSCAN	036
X-10	052
XANTECH	037 038 039 040 041
YAMAHA	042
ZENITH	043

■ SATELLITE (Satellite receivers, etc.)

Maker/Brand	Set-up codes
AMPLICA	050
BSR	053
CAPETRONICS	053
CHANNEL MASTER	013 014 015 018 036 055
CHAPARRAL	008 009 012 077
CITOH	054
CURTIS MATHES	050 145
DRAKE	005 006 007 010 011 112 116 141
DX ANTENNA	024 046 056 076
ECHOSTAR	038 040 057 058 093 094 095 096 097 098 099 100 122
EUROSAT	114
FUJITSU	017 021 022 027 133 134
GENERAL ELECTRIC	001 106
GENERAL INSTRUMENT	003 004 016 029 031 059 101 148
HITACHI	139 140
HOME CABLE	080 044 029
HOUSTON TRACKER	033 037 039 104 057
HUGHES	068
HYTEK	053
ICR	023
JANIEL	060 147
JERROLD	061
LEGEND	057
MACOM	010 059 063 064 065
MEMOREX	057
NEXTWAVE	028
PACE	143
PANASONIC	060 142
PANSAT	121
PERSONAL CABLE	117
PHILIPS	071
PL	023 026
PRESIDENT	019 102
PRIMESTAR	110 030
PROSAT	072
PROSCAN	001 006
RCA	001 106
REALISTIC	043 074
SAMSUNG	123
SATELLITE SERVICE	028 035 047 085
SCIENTIFIC ATLANTA	032 138
SONY	103
STARCAST	041
SUPERGUIDE	020
TEE COM	023 026 075 087 088 090 107 130 137
TOSHIBA	002 127
TOWN & COUNTRY	023 026
UNIDEN	016 025 042 043 044 045 048 049 078 079 080 086 101 135 136
US ELECTRONICS	023
VIEWSTAR	115
WINEGARD	146
ZENITH	081 082 083 084 091 120

■ TV (TVs, Monitors, Video/LCD projectors, etc.)

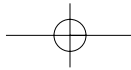
Maker/Brand	Set-up codes
ADMIRAL	072 081 161 160
AKAI	011 146
AMARK	112 143
AMPRO	073 167
AMSTRAD	052
ANAM	043 054 056 080 104 108 112 115 118 131 121
AOC	001 004 112 058
BLAUPUNKT	088
CANDLE	001 002 003 004
CAPEHART	058
CETRONIC	043
CITIZEN	001 002 003 004 043 101 103 143
CLASSIC	043
CONCERTO	004
CONTEC	043 050 051
CORONADO	143
CRAIG	043 054
CROWN	043 143
CURTIS MATHES	001 101 004 143
CXC	043
DAEWOO	004 016 017 043 044 055 071 076 103 107 111 114 117 120 123 125 127 136 143
DAYTRON	004 143
DWIN	177
DYNASTY	043
DYNATECH	062
EIKI	187
ELECTROHOME	024 143
EMERSON	001 004 005 028 043 047 048 050 051 096 143 151 153 154 155
FISHER	007 057
FUNAI	028 043
FUTURETECH	043
GE	011 008 009 034 056 073 074 130 144 155 160 161 165 004 091
GOLDSTAR	004 102 106 110 112 113 116 119 127 137 143 122
HALL MARK	004
HITACHI	004 009 010 011 012 023 075 143 158 163 166
INFINITY	164
INKEL	129
JBL	164
JCPENNY	001 004 008 009 024 030 065 101 143 156 160
JENSEN	013
JVC	034 038 070 083 145
KEC	043
KENWOOD	001 070
KLOSS	002 059
KMC	143
KTV	001 043 143 154
LODGENET	072
LOGIK	072
LUXMAN	004
LXI	166 007 015 052 081 160 164
MAGNAVOX	001 003 004 022 059 060 061 063 064 127 160 164 094
MARANTZ	001 164
MATSUI	164
MEMOREX	007 072 004
METZ	088
MGA	001 004 024 028 042
MINERVA	088
MITSUBISHI	004 024 028 040 042 109 124 146
MTC	001 004 062 101
NAD	015 025
NEC	132 130 134 001 040 016 024 056 019
NIKEI	043
ONKING	043
ONWA	043
OPTONICA	019 081

■ TV (continued)

Maker/Brand	Set-up codes
PANASONIC	034 056 080 092 164
PHILCO	001 003 024 056 059 060 063 064 164 004
PHILIPS	001 003 004 005 038 059 093 164 127
PIONEER	001 018 023 025 116 135
PORTLAND	004 143
PROSCAN	144 160 161 165 167
PROTON	004 058 131 143 171 173
QUASAR	034 056 092
RADIO SHACK	019 043 143 004 127
RCA	160 161 165 065 156 144 001 004 023 024 056 074 152
REALISTIC	007 019 043 047
ROCTEC	186
RUNCO	168 169 178 179 180 181 182 183
SAMPO	001 058 004
SAMSUNG	004 050 089 101 105 127 133 137 143 160
SANYO	166 007 020 053 057 082
SCOTT	004 028 043 048 143
SEARS	015 030 004 007 028 057 143 094 160 082 165
SHARP	170 081 019 028 029 014 004 022 143 175
SIEMENS	088
SIGNATURE	072
SONY	070 085 147 126 185
SOUNDESIGN	004 028 003 043
SPECTRICON	112
SSS	004 043
SUPRE MACY	002
SYLVANIA	001 003 059 060 063 064 164 044 160 127
TANDY	081
TATUNG	056 062
TECHNICS	034 080
TECHWOOD	004
TEKNIKA	002 003 004 024 028 043 072 101 143
TELEFUNKEN	037 046 086 087
TELERENT	072
TERA	172
TMK	004
TOSHIBA	007 015 030 040 062 101 138
TOTEVISION	143
UNIVERSAL	008 009
VIDEO CONCEPTS	146
VIDIKRON	174 184 188
VIDTECH	004
WARDS	004 008 009 019 028 060 061 063 064 072 074 143 164
YAMAHA	001 004
YORK	004
YUPITERU	043
ZENITH	072 073 095 103 157
ZONDA	112

■ VCR (VCRs, etc.)

Maker/Brand	Set-up codes
AIWA	034
AKAI	016 043 046 124 125 142 146
AMPRO	072
ANAM	031 103
AUDIO DYNAMICS	012 023 039 043
BROOKSONIC	035 037 129
CANON	028 031
CAPEHART	108
CRAIG	003 040 135
CURTIS MATHES	031 041
DAEWOO	005 007 010 064 065 108 110 111 112 116 117 119
DAYTRON	108
DBX	012 023 039 043
DYNATECH	034 053
ELECTROHOME	059
EMERSON	006 017 025 027 029 031 034 035 036 037 046 101
	129 131 138 153
FISHER	003 008 009 010
FUNAI	034
GE	031 063 072 107 109 144 147
GO VIDEO	132 136
GOLDSTAR	012 013 020 101 106 114 123
HARMAN KARDON	012 045
HITACHI	004 018 026 034 043 063 137 150
INSTANTREPLAY	031
JCL	031
JCPENNY	012 013 015 040 066 101
JENSEN	043
JVC	012 031 043 048 050 055 060 130 150 152
KENWOOD	014 048 034 047
LLOYD	034
LXI	003 009 017 034 106
MAGIN	040
MAGNAVOX	031 034 041 067 068
MARANTZ	012 031 067 069
MARTA	101
MATSUI	027 030
MEI	031
MEMOREX	003 010 014 031 034 053 072 101 102 134 139
MGA	045 046 059
MINOLTA	013 020



■ VCR (continued)

Maker/Brand	Set-up codes
MITSUBISHI	013 020 045 046 051 059 061 142 151
MTC	034 040
MULTITECH	024 034
NEC	012 023 039 043 048
NORDMENDE	043
OPTONICA	053 054
PANASONIC	066 070 083 133 140 145
PENTAX	013 020 031 063
PHILCO	031 034 067
PHILIPS	031 034 054 067 071 101
PILOT	101
PIONEER	013 021 048
PORTLAND	108
PULSAR	072
QUARTZ	002 014
QUASAR	066 145
RADIO SHACK	123
RCA	013 020 041 107 109 140 144 145 147 034 040
REALISTIC	003 008 010 014 031 034 040 053 054 101
RICO	058
RUNCO	148
SALORA	014
SAMSUNG	032 040 102 104 107 109 112 113 115 120 122 125
SANSUI	022 043 048 135
SANYO	003 007 010 014 134 102
SCOTT	017 037 112 129 131
SEARS	003 008 009 010 013 014 081 101 017
SHARP	031 054 149
SHINTOM	024
SIGNATURE	034
SONY	003 031 052 056 057 058 076 077 078 149
SOUNDESIGN	034
STS	013
SYLVANIA	031 034 059 067
SYMPHONIC	034
TANDY	010 034
TATUNG	039 043
TEAC	034 039 043
TECHNICS	031 070
TEKNIKA	019 031 034 101
THOMAS	034
TMK	006
TOSHIBA	008 013 042 047 059 079 082 112 131
TOTEVISION	040 101
UNITECH	040
VECTOR RESEARCH	012
VICTOR	048
VIDEO CONCEPTS	012 034 046 141
VIDEOSONIC	040
WARDS	003 013 017 024 031 034 040 053 054 131
YAMAHA	012 034 039 043
ZENITH	034 048 056 058 072 080 101

■ CABLE (Cable boxes, Internet set-tops, etc.)

Maker/Brand	Set-up codes
ABC	001 003 004 039 042 046 053
ANTRONIX	014
ARCHER	005 007 014
CENTURION	092
CENTURY	007
CITIZEN	007
COMBANO	080 081
EAGLE	020 040
EASTERN	057 066
ELECTRICORD	032
GENERAL ELECTRIC	072
GENINI	008
GENERAL INSTRUMENT	001 074
GOLDEN CHANNEL	030
HAMLIN	049 050 055
HITACHI	001 055
JERROLD	001 002 003 004 008 009 010 069 074
M-NET	037
MAGNAVOX	010 012 064 079 095 094
MEMOREX	052
MOVIE TIME	028 032
NSC	015 028 038 071
OAK	031 037 053
PANASONIC	044 047
PARAGON	052
PHILIPS	006 012 013 020 085
PIONEER	001 034 051 063 076
PRUCER	059
PTS	011 071 074
PULSAR	052
RCA	047
REGAL	049 050
REGENCY	057
SCIENTIFIC ATLANTA	003 011 041 042 043 045 046
SONY	096
SPRUCER	047 078
STARCOM	002 004 008 009
STARGATE	008 097
TOCOM	039 040 056
TOSHIBA	052
UNIKA	007 014 024
UNITED CABLE	004 053
UNIVERSAL	005 007 014 032 035
VIEWSTAR	012 015 018 086 087 088 089
ZENITH	052 060 093

