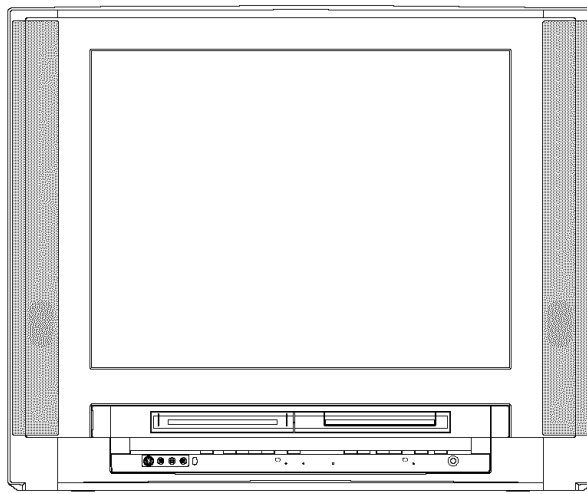


SYLVANIA

COLOR TV/VCR/DVD TRIPLE RECORDER COMBO

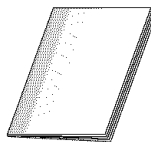
Owner's Manual

SREC427



SUPPLIED ACCESSORIES

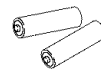
This unit comes with the following accessories. Please confirm that all the accessories are included.



Owner's Manual
(1EMN20100)



Remote Control
(NE235UD)



AA batteries x 2

NOTE

If any of accessories are missing, please contact your dealer.

Thank you for purchasing this product.

Please make sure to read this manual before using the product, and pay particular attention to the Safety Instructions enclosed within.

When you have finished reading this manual, store it in a safe place for easy access in the future.

IF YOU NEED ADDITIONAL ASSISTANCE FOR SET-UP OR OPERATING AFTER READING OWNER'S MANUAL, PLEASE CALL TOLL FREE 1-800-605-8453.

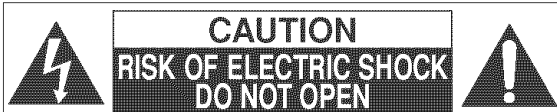
Before you use this unit, you need to complete connections. Refer to "Connections" on pages 10-13.

To record a program easily, refer to "Easy DVD recording" on pages 46-47 after connections are completed.
(You CANNOT copy any copyright protected DVD disc with this unit.)

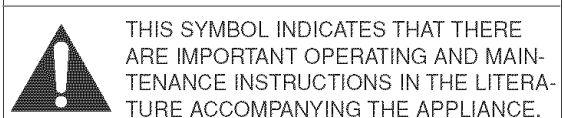
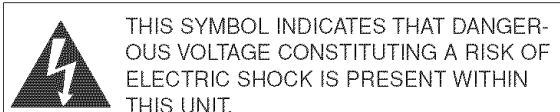
INSTRUCCIONES EN ESPAÑOL INCLUIDAS.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



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



The important note is located on the rear of the cabinet.

IMPORTANT SAFETY INSTRUCTIONS

1. Read instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Cleaning - Unplug the TV/VCR/DVD from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
EXCEPTION: A product that is meant for uninterrupted service and, that for some specific reason, such as the possibility of the loss of an authorization code for a CATV converter, is not intended to be unplugged by the user for cleaning or any other purpose, may exclude the reference to unplugging the appliance in the cleaning description otherwise required in item 5.
6. Attachments - Do not use attachments not recommended by the TV/VCR/DVD manufacturer as they may cause hazards.
7. Water and Moisture - Do not use this TV/VCR/DVD near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories - Do not place this TV/VCR/DVD on an unstable cart, stand, tripod, bracket, or table. The TV/VCR/DVD may fall, causing serious injury to someone, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the TV/VCR/DVD.

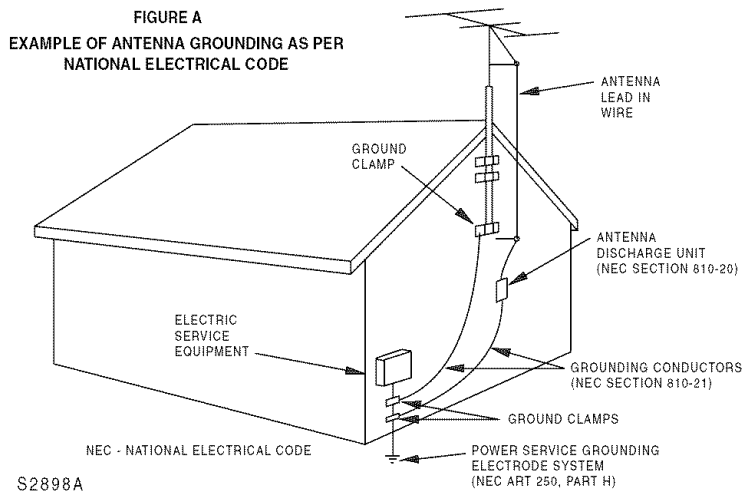
Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



AMEUBLES - Cet appareil ne doit être placé que sur un meuble (avec ou sans roulettes) recommandé par le fabricant. Si vous l'installez sur un meuble à roulettes, déplacez les deux ensembles avec précaution. Un arrêt brusque, l'utilisation d'une force excessive et des surfaces irrégulières risquent de déstabiliser l'ensemble et de le renverser.



9. Ventilation - Slots and openings in the cabinet and the back or bottom are provided for ventilation and to ensure reliable operation of the TV/VCR/DVD and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the TV/VCR/DVD on a bed, sofa, rug, or other similar surface. This TV/VCR/DVD should never be placed near or over a radiator or heat register. This TV/VCR/DVD should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to .
10. Power Sources - This TV/VCR/DVD should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For TV/VCR/DVD intended to operate from battery power, or other sources, refer to the operating instructions.
11. Grounding or Polarization - This TV/VCR/DVD is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. Power-Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.



13. Outdoor Antenna grounding - If an outside antenna or cable system is connected to the TV/VCR/DVD, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA No. 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. (Fig. A)
14. Lightning - For added protection for this TV/VCR/DVD receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the TV/VCR/DVD due to lightning and power-line surges.
15. Power Lines - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
16. Overloading - Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
17. Object and Liquid Entry - Never push objects of any kind into this TV/VCR/DVD through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the TV/VCR/DVD.
18. Servicing - Do not attempt to service this TV/VCR/DVD yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. Damage Requiring Service - Unplug this TV/VCR/DVD from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power supply cord or plug is damaged or frayed.
 - b. If liquid has been spilled, or objects have fallen into the TV/VCR/DVD.
 - c. If the TV/VCR/DVD has been exposed to rain or water.
 - d. If the TV/VCR/DVD does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV/VCR/DVD to its normal operation.
 - e. If the TV/VCR/DVD has been dropped or damaged in any way.
 - f. When the TV/VCR/DVD exhibits a distinct change in performance-this indicates a need for service.
20. Replacement Parts - When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, injury to persons or other hazards.
21. Safety Check - Upon completion of any service or repairs to this TV/VCR/DVD, ask the service technician to perform routine safety checks to determine that the TV/VCR/DVD is in proper operating condition.
22. Heat - This TV/VCR/DVD product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

PRECAUTIONS

IMPORTANT COPYRIGHT INFORMATION

Unauthorized copying, broadcasting, public performance and lending of discs are prohibited.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

RADIO-TV INTERFERENCE

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:

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

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC WARNING- This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

CAUTION: USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. DO NOT STARE INTO BEAM.

LOCATION: INSIDE, NEAR THE DECK MECHANISM.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOC ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

LOCATION

For safe operation and satisfactory performance of your TV/VCR/DVD, keep the following in mind when selecting a place for its installation:

- Shield it from direct sunlight and keep it away from sources of intense heat.
- Avoid dusty or humid places.
- Avoid places with insufficient ventilation for proper heat dissipation. Do not block the ventilation holes at the top and bottom of the unit. Do not place the unit on a carpet because this will block the ventilation holes.
- Install unit in a horizontal position.
- Avoid locations subject to strong vibration.
- Do not place the TV/VCR/DVD near strong magnetic fields.
- Avoid moving TV/VCR/DVD to locations where temperature differences are extreme.

AVOID THE HAZARDS OF ELECTRICAL SHOCK AND FIRE

- Do not handle the power cord with wet hands.
- Do not pull on the power cord when disconnecting it from an AC wall outlet. Grasp it by the plug.
- If, by accident, water is spilled on your unit, unplug the power cord immediately and take the unit to a Authorized Service Center for servicing.
- Do not put your fingers or objects into the TV/VCR/DVD disc loading tray or the cassette compartment.
- Do not place anything directly on top of the unit.

MOISTURE CONDENSATION WARNING

- Moisture condensation may occur inside the unit when it is moved from a cold place to a warm place, or after heating a cold room or under conditions of high humidity. Do not use this unit at least for 2 hours until its inside gets dry.

REGARDING THIS MANUAL

- Product and company names appearing within this manual are trademarks or registered trademarks of their respective owners.
- Although special care has been taken to ensure that all information contained within this manual is correct at time of writing, the information is subject to change without notice.
- Make sure to read the manual carefully and follow all instructions contained within. We will not be held responsible for any damages caused by improper use or handling of this product.
- Reproducing this manual by any means, in whole or in part, is prohibited.

A NOTE ABOUT RECYCLING

This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with your local recycling regulations.

Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulations concerning chemical wastes.

The serial number of this product may be found on the back of this unit. No other TV/VCR/DVD has the same serial number as yours. You should record the number and other vital information here and retain this book as a permanent record of your purchase to aid identification in case of theft.

Date of Purchase		Dealer Phone No.	
Dealer		Model No.	
Dealer Address		Serial No.	

SYMBOLS USED IN THIS MANUAL

The following is the description for the symbols used in this manual.

DVD-V : Refers to DVD video discs.

DVD-RW (Video) : Refers to DVD-RW in Video mode.

DVD-RW (VR) : Refers to DVD-RW in VR mode.

DVD-R : Refers to DVD-R discs.

CD : Refers to Audio CDs.

MP3 : Refers to CD-R/RW discs with MP3 files.

VCR : Refers to VHS tapes. Use only cassettes marked **VHS**.

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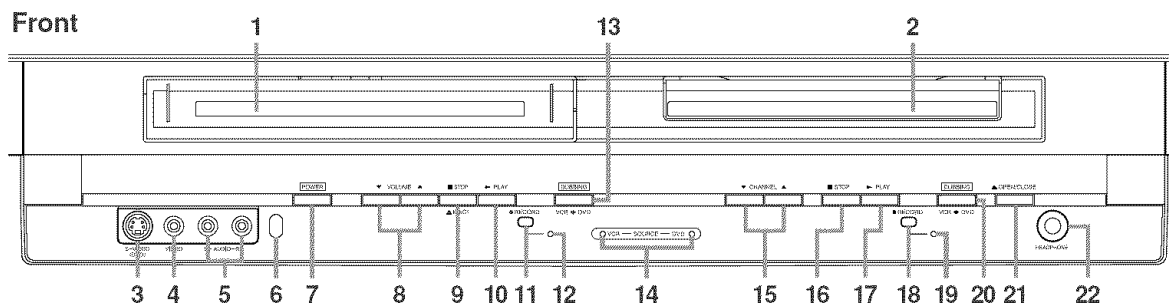
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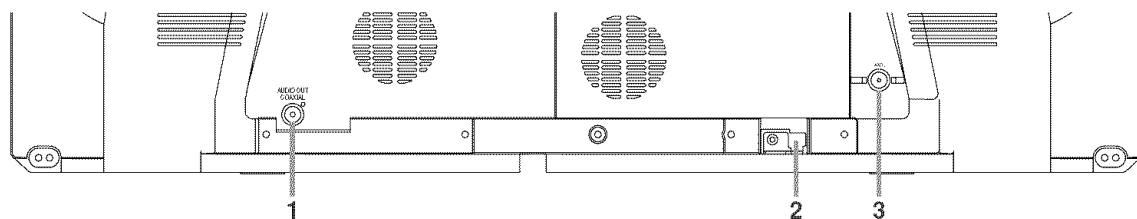
COMPONENT NAMES

Main Unit



- 1 Cassette compartment (VCR):** Insert a tape here.
- 2 Disc tray (DVD):** Place a disc on the tray when open.
- 3 S-VIDEO input jack (DVD only):** Use to connect the S-Video output of external video components with an S-Video cable.
- 4 VIDEO input jack:** Use to connect external video components with a standard video cable.
- 5 AUDIO (L/R) input jack:** Use to connect external video/audio components with standard audio cables.
- 6 Receiving window for remote control signal:** Sensor that receives signal from the remote control unit.
- 7 POWER button:** Press to turn the unit on and off. If timer programmings have been set, press to set the unit in timer-standby mode. Press to cancel the timer-standby mode, then turn the unit on.
- 8 VOLUME ▲/▼ buttons:** Press to adjust the sound level.
- 9 ■ STOP/▲ EJECT button (VCR):**
▲ EJECT button- Press to remove the tape from the unit.
■ STOP button- Press to stop tape movement. Press to stop the proceeding timer recording in VCR.
- 10 ► PLAY button (VCR):** Press to start playback.
- 11 ● RECORD button (VCR):** Press once to begin recording. Press repeatedly to start a One-Touch Recording.
- 12 RECORD indicator (VCR):** Blinks during VCR recording.
- 13 DUBBING button (VCR→DVD):** Press to start VCR to DVD duplication.
- 14 VCR/DVD indicator:** Shows the operating status. Indicator for VCR illuminates during VCR playing, and one for DVD illuminates during DVD playing.
- 15 CHANNEL ▲/▼ buttons:** Press to change the channel up or down. During DVD playback, press to change the DVD chapter.
- 16 ■ STOP button (DVD):** Press to stop playback or recording. Press to stop the proceeding timer recording in DVD.
- 17 ► PLAY button (DVD):** Press to start or resume play.
- 18 ● RECORD button (DVD):** Press once to start recording. Press repeatedly to start a One-Touch Recording.
- 19 RECORD indicator (DVD):** Illuminates when you have programmed the DVD or VCR timer recording, and blinks during DVD recording.
- 20 DUBBING button (VCR←DVD):** Press to start DVD to VCR duplication.
- 21 ▲ OPEN/CLOSE button (DVD):** Press to open or close the disc tray.
- 22 HEADPHONE jack:** To connect headphone (not supplied) for personal listening.

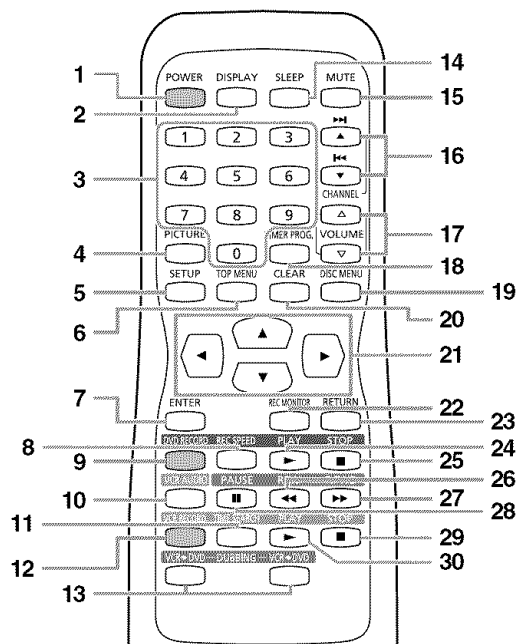
Rear



- 1 AUDIO OUT COAXIAL jack (DVD sound only):** Use to connect an AV receiver with a coaxial digital input jack.
• Only DVD, CD and MP3 audio will be output from this jack.
- 2 AC Power Cord:** Connect to a standard AC outlet to supply power to this unit.
- 3 ANT. (Antenna input) jack:** Use to connect an antenna, or cable system.

COMPONENT NAMES

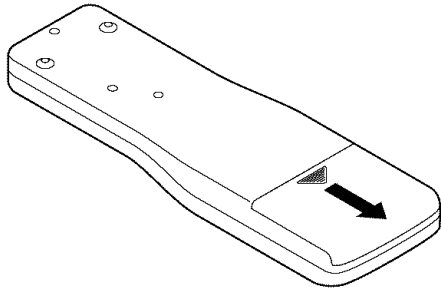
Remote Control Unit



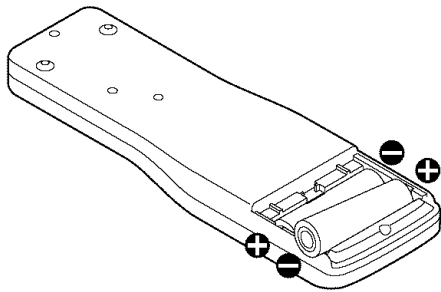
- 1 **POWER button:** Press to turn the unit on and off. If timer programmings have been set, press to place the unit in timer-standby mode. Press to cancel the timer standby mode, then turn the unit on.
- 2 **DISPLAY button:** Press to display or change the on-screen display.
- 3 **Number button:** Press to select channel numbers. Press to select a title/chapter/track. Also press to enter values for the settings in the SETUP menu.
- 4 **PICTURE button:** Press to adjust the picture.
- 5 **SETUP button:** Press to display the setup menu.
- 6 **TOP MENU button (DVD):** Press to display the top menu.
- 7 **ENTER button:** Press to confirm or select menu items.
- 8 **REC SPEED button:** Press to switch DVD REC MODE or VCR REC SPEED.
- 9 **DVD RECORD button:** Press once to start a recording.
- 10 **VCR AUDIO button:** During playback a HiFi video tape, press to change the audio out setting "HiFi" or "MONO."
- 11 **TIME SEARCH button (VCR):** Press to call up the time search menu.
- 12 **VCR RECORD button:** Press once to start a recording.
- 13 **DUBBING button:**
Press VCR → DVD to start dubbing from video tape to DVD.
Press VCR ← DVD to start dubbing from DVD to video tape.
- 14 **SLEEP button:** Press to activate the sleep timer.
- 15 **MUTE button:** Press to eliminate the sound temporarily.
- 16 **CHANNEL ▲/▼ buttons:** Press to change the channel up and down.
▶▶/◀◀ **buttons:** During DVD playback, press to change the DVD chapter.
Press to adjust the video tape playback tracking manually.
- 17 **VOLUME Δ/▽ buttons:** Press to adjust the sound level.
- 18 **TIMER PROG. button:** Press to display the timer program setting menu.
- 19 **DISC MENU button (DVD):** Press to display the Disc menu.
Press to change "Original" and "Playlist". (VR mode only)
- 20 **CLEAR button:**
 - During DVD operation
Press to clear the password once entered, to cancel the programming for CD, to clear the selecting marker number in the marker setup mode or to clear the program once entered in the timer recording setting mode, etc.
 - During VCR operation
Press to reset the tape counter.
- 21 **▲/▼/◀/▶ buttons:** Press to select items or settings.
- 22 **REC MONITOR button (DVD):** Press to check the video to be recorded before attempting.
- 23 **RETURN button:** Press to return to the previously displayed menu screen.
- 24 **PLAY ► (DVD) button:** Press to start or resume play.
- 25 **STOP ■ (DVD) button:** Press to stop playback or recording.
- 26 **REW ◀◀ button:**
 - During DVD operation
During playback, press to fast reverse. During pause, press to play slow reverse.
 - During VCR operation
Press to rewind the tape or to view the picture rapidly in reverse during the playback mode.
- 27 **F.FWD ▶▶ button:**
 - During DVD operation
During playback, press to play fast forward.
During pause, press to play slow forward.
 - During VCR operation
Press to rapidly advance the tape or view the picture rapidly in forward during playback.
- 28 **PAUSE ||| button:** Press to pause or recording.
- 29 **STOP ■ (VCR) button:** Press to stop playback or recording.
- 30 **PLAY ► (VCR) button:** Press to start playback.

Inserting Remote Control Batteries

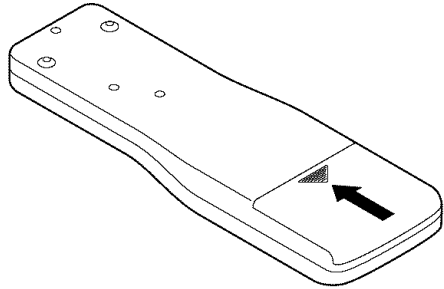
- 1** Slide the cover of the remote control unit down until the battery compartment appears.



- 2** Insert two AA size batteries, making sure that their polarities should match the symbols shown inside the battery casing.



- 3** Slide and close the cover of the remote control unit.



NOTE

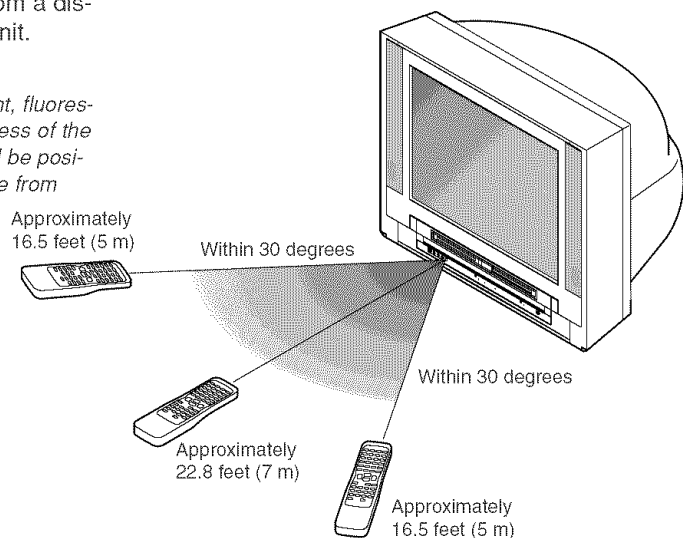
- Do not insert old and new batteries mixed together.
- Do not insert different brands or types of batteries mixed together.
- Always insert new batteries for replacement.

Remote Control Range

Operate the remote control within 30-degree angle on both sides of the infrared sensor on the main unit. You can operate the remote control from a distance of several feet away from the main unit.

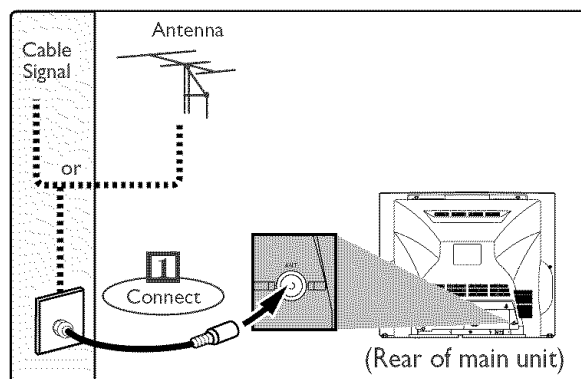
NOTE:

Other devices that use infrared beams, sunlight, fluorescent lights may affect the range and effectiveness of the remote control. Make sure that this unit should be positioned where there is the minimum interference from other devices.



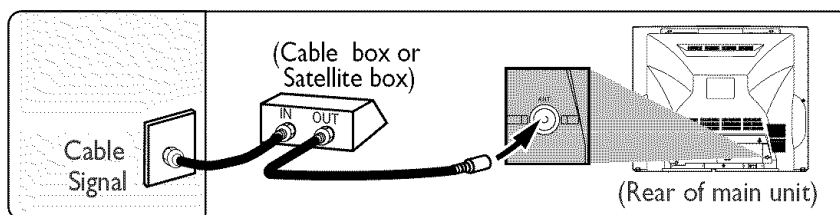
CONNECTIONS

Connection of Main Unit



2 Plug in the AC power cord of this unit.

Connection to Cable Box or Satellite Box



Select this connection when you want to view or record a scrambled channel. With this connection, channels cannot be changed on the TV/VCR/DVD unit. You can view or record **ONLY** the channels you have selected on the cable box or the satellite box.

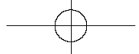
- While you are recording, only the recorded channel can be viewed.

To select channels of the cable box or satellite box

- 1) Turn on this unit by pressing **POWER** button. Then, press the **CHANNEL** buttons to select channel 3 or 4 (the same channel as the output channel of the cable box or satellite box).
- 2) At the cable box or satellite box, select the channel you want to view or record.

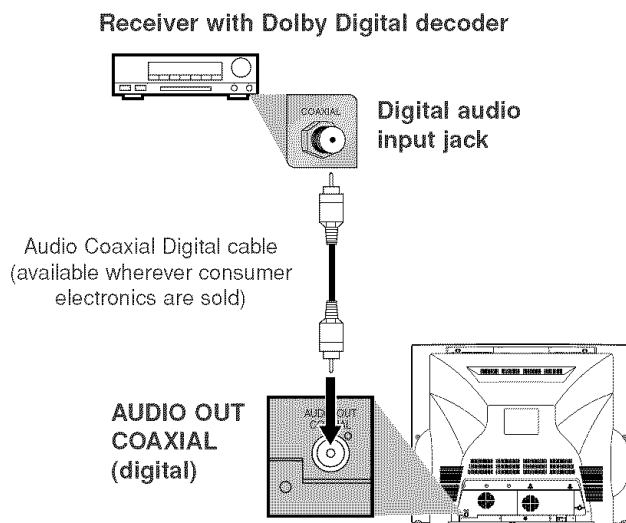
Note for the Cable TV System Installer:

This reminder is provided to call the Cable TV system installer's attention to Article 820-40 of the National Electrical Code, which provides guidelines for proper grounding - in particular, specifying that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as possible.



Connection to Audio System

- Before changing the connections or installing the unit, all devices should be turned off.
- Refer to each owner's manual for further information on other devices.



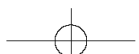
NOTE:

- When you play a DVD disc with connecting TV/VCR/DVD to a receiver with a Dolby Digital decoder, set "Dolby Digital" to "Stream" for the "Digital Out" setting in the SETUP menu. (Refer to pages 12-13.)
- The audio source on a DVD disc in a Dolby Digital 5.1 channel surround format cannot be recorded as digital sound by an MD or DAT deck.
- If the receiver does not have a Dolby Digital decoder, set "Dolby Digital" to "PCM" for the "Digital Out" setting in the SETUP menu. Playing a DVD using incorrect settings may generate noise distortion and may also damage the speakers. (Refer to pages 12-13.)
- Set "Dolby Digital" to "PCM" for the "Digital Out" setting in the SETUP menu for connecting to an MD deck or DAT deck. (Refer to pages 12-13.)
- By hooking this unit up to a Multi-channel receiver with a Dolby Digital decoder, you can enjoy high-quality Dolby Digital 5.1 channel surround sound as heard in the movie theaters.

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

▲ NOTE:

- Only DVD, CD and MP3 audio will be available at the AUDIO OUTPUT COAXIAL jack.



CONNECTIONS

Audio Setting

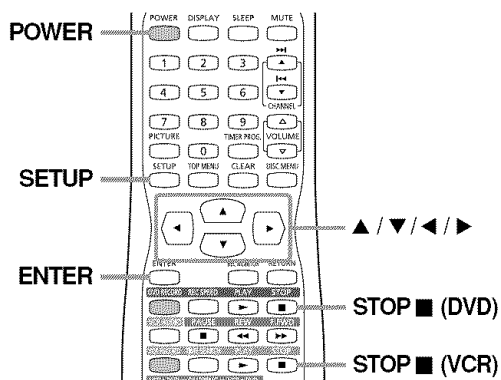
Choose the appropriate audio setting when connecting the unit to an external audio system (sold separately).

NOTE: DVD & CD Audio Only

• Only DVD and CD audio will be available to be amplified through the external audio system.

NOTE:

• Dynamic Range Control function is available only with discs recorded in the Dolby Digital format.

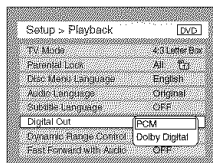
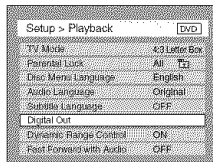


Press **STOP ■ (DVD)** or **STOP ■ (VCR)** button if you are playing a disc or tape.

- 1 Press **POWER** button to turn on the unit.
- 2 Press **SETUP** button to display SETUP/DISC menu. SETUP/DISC menu will appear.
- 3 Select "SETUP" using **◀▶** buttons, then press **ENTER** button. SETUP menu will appear.
- 4 Select "Playback" using **▲/▼/◀▶** buttons, then press **ENTER** button. Option window will appear.
- 5 Select a desired item using **▲/▼** buttons, then press **ENTER** button.

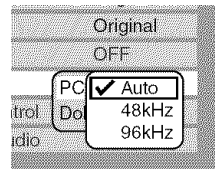
Digital Out

Set the digital audio output.



- Select a setting using **▲/▼** buttons, then press **ENTER** button. Option window will appear. Proceed to step [A] or [B].

[A] Settings for PCM (Default: Auto)



- Select a setting using **▲/▼** buttons, then press **ENTER** button.

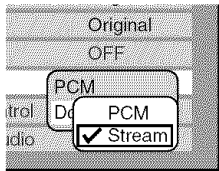
Your setting will be activated.

- Auto : Select "Auto" for normal playback.
- 48kHz : If your amplifier/receiver is NOT compatible with 96kHz PCM, select "48kHz". 96kHz sound will be output in 48kHz.
- 96kHz : If your amplifier/receiver is compatible with 96kHz PCM, select "96kHz". 96kHz sound will be output.

NOTE:

- When playing disc with copyright protection
- If you select "Auto", the sound will be down sampled at 48kHz.
- If you select "96kHz", no digital sound will be output. Select "Auto", so that outputting 48kHz digital sound.

[B] Settings for Dolby Digital (Default : Stream)



- Select a setting using ▲/▼ buttons, then press **ENTER** button.

Your setting will be activated.

PCM : Convert the Dolby Digital into PCM 2 channel (stereo).
When your amplifier/receiver is NOT compatible with Dolby Digital, set to "PCM".

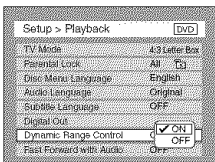
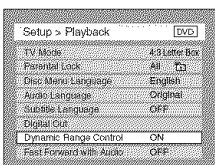
Stream : Outputs a Dolby Digital signal.
When your amplifier has a Dolby Digital decoder, set to "Stream".

NOTE:

- When playing a DVD-RW disc recorded in VR mode
- If the audio source on a disc is Dolby Digital format, set "Dolby Digital" to "PCM" so that you can switch to main (L), sub audio (R), or a mix of both (L/R) with your amplifier/decoder.

Dynamic Range Control (Default : ON)

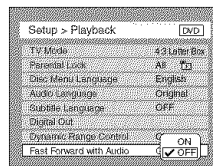
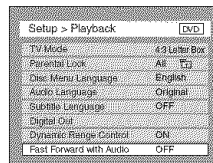
Set to "ON" to compress the range between soft and loud sounds.



- Select a setting using ▲/▼ buttons, then press **ENTER** button.
- Your setting will be activated.

Fast Forward with Audio (Default : OFF)

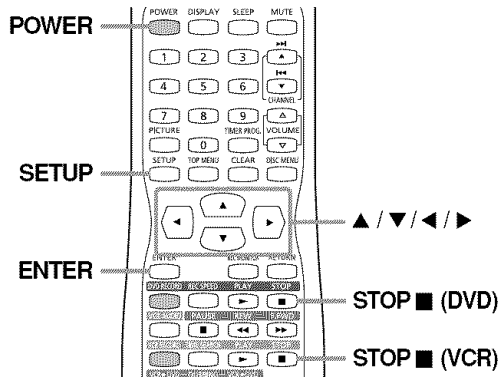
Set to "ON" to hear the sound during playback in fast forward of x2.



- Select a setting using ▲/▼ buttons, then press **ENTER** button.
- Your setting will be activated.

6 Press **SETUP** button to exit SETUP menu.

OSD DISPLAY SETTING

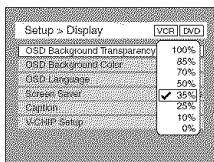
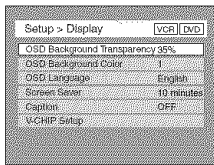


Press **STOP** (DVD) or **STOP** (VCR) button if you are playing a disc or tape.

- 1 Press **POWER** button to turn on the unit.
- 2 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 3 Select "SETUP" using **◀▶** buttons, then press **ENTER** button.
SETUP menu will appear.
- 4 Select "Display" using **▲/▼/◀▶** buttons, then press **ENTER** button.
Option window will appear.
- 5 Select a desired item using **▲/▼** buttons, then press **ENTER** button.

OSD Background Transparency (Default : 35%)

Set the background transparency of OSD screen. You can choose between 0% through 100%.

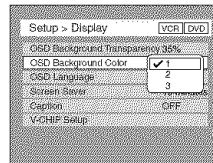
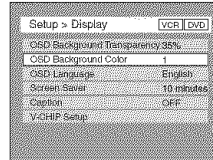


- Select a setting using **▲/▼** buttons, then press **ENTER** button.
Your setting will be activated.

OSD Background Color (Default : 1 Green)

Set the OSD screen color.

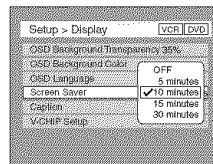
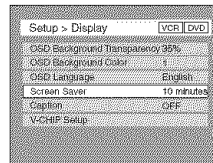
You can choose one from 1(Green), 2(Blue), and 3(Red).



- Select a setting using **▲/▼** buttons, then press **ENTER** button.
Your setting will be activated.

Screen Saver (Default : 10 minutes)

Set the time before the screen saver appears on the screen.

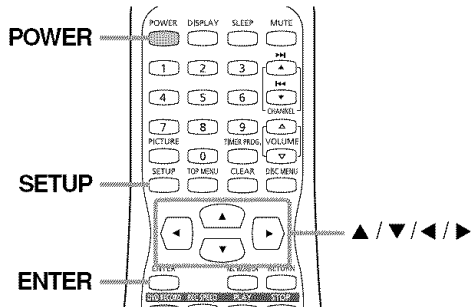


- Select a setting using **▲/▼** buttons, then press **ENTER** button.
Your setting will be activated.

- 6 Press **SETUP** button to exit SETUP menu.

OSD LANGUAGE SETTING

You can select the language for on-screen display (OSD).



1 Press **POWER** button to turn on the unit.

2 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.

3 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.

4 Select "Display" using ▲▼/◀▶ buttons, then press **ENTER** button.
Option window will appear.

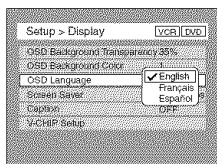
5 Select "OSD Language" using ▲▼ buttons, then press **ENTER** button.

NOTE:

• Default OSD language setting is English.

6 Select your desired language among "English", "Français" and "Español" using ▲▼ buttons, then press **ENTER** button.

Your language setting will be activated.

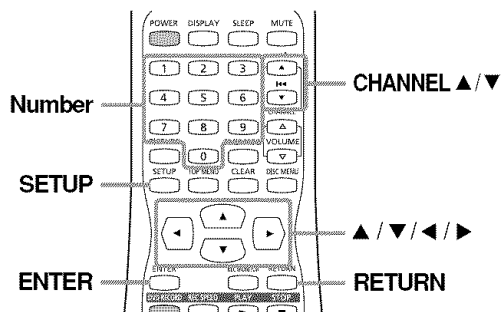


7 Press **SETUP** button to exit SETUP menu.

CHANNEL SETTING

It is recommended that you should preset channels in your area using "Auto Preset" in the Channel Preset of the SETUP menu.

Auto Preset



1 Press **SETUP** button to display SETUP/DISC menu.

SETUP/DISC menu will appear.

2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.

SETUP menu will appear.

3 Select "Channel" using ▲/▼/◀▶ buttons, then press **ENTER** button.

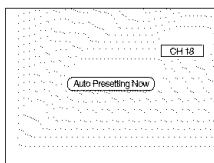
Channel Preset menu will appear.

4 Select "Auto Preset" using ▲/▼ buttons, then press **ENTER** button.

The unit will begin scanning channels available in your area.

To cancel the Auto Preset during scanning:

Press **RETURN** button or **SETUP** button to cancel.



NOTE:

- If the Auto Preset is cancelled before completing the preset, some channels that have not been preset may not be available.
- The selection will depend on how you receive the TV channels.

5 Press **SETUP** button to exit.

You can select only the channels memorized in this unit by using the **CHANNEL ▲/▼** buttons.

To select a channel :

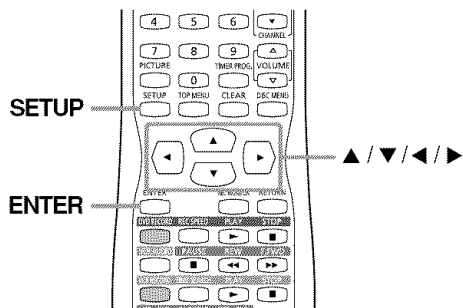
You can select a channel by directly entering channel using the **Number** buttons on the remote control.

▲ Notes for using the Number buttons:

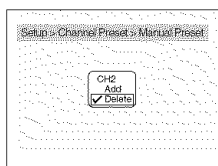
- When selecting cable channels which are higher than 99, enter channel numbers as a three-digit number. (For example: 117, press 1,1,7)
- You must precede single-digit channel numbers with a zero (For example: 02, 03, 04 and so on).
- You can select the line input mode ("AUX"). To select "AUX" by pressing [0], [0]. Details are on page 56.

Add/Delete Function

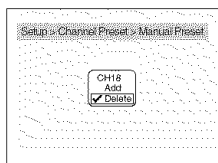
The channels you no longer receive or seldom watch can be deleted from the memory. You can also add channels into memory.



- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.
- 3 Select "Channel" using ▲/▼/◀▶ buttons, then press **ENTER** button.
Channel Preset menu will appear.
- 4 Select "Manual Preset" using ▲/▼ buttons, then press **ENTER** button.
Manual Preset menu will appear.



- 5 Select the channel number to add or delete.
Press ◀ button to move to a lower channel number.
Press ▶ button to move to a higher channel number.



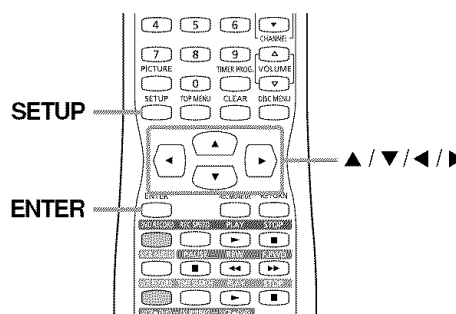
- 6 Select "Add" or "Delete" using ▲/▼ buttons, then press **ENTER** button.
The channel number will be added or deleted

from the channel memory. The next channel number will appear so that you can continue adding or deleting channels.

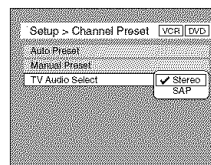
- 7 Press **SETUP** button to exit.

Selecting TV Stereo or SAP

You can select stereo or SAP (Secondary Audio Program). "Stereo" has been selected as the default.



- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.
- 3 Select "Channel" using ▲/▼/◀▶ buttons, then press **ENTER** button.
Channel Preset menu will appear.
- 4 Select "TV Audio Select" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



- 5 Select "Stereo" or "SAP" using ▲/▼ buttons, then press **ENTER** button.

Stereo:

Outputs main-audio.

SAP: (Secondary Audio Program)

Outputs second audio channel. Refer to the item in "Glossary" on page 79 for more information.

- 6 Press **SETUP** button to exit.

CLOCK SETTING

Set the clock before you try timer recording. If a Public Broadcasting Station (PBS) is available in your area, follow Auto Clock Setting below. If not, follow Manual Clock Setting on page 19.

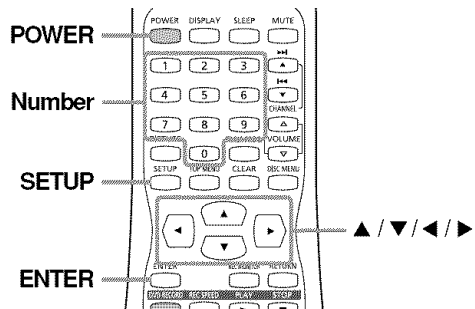
▲ Important

You must know the local PBS station in your area.

Auto Clock Setting

NOTE:

- Make sure that the antenna or cable are connected to the unit.
- If the TV/VCR/DVD is connected directly to a cable converter box or satellite box, the local PBS station must be selected on the cable box itself, and the TV/VCR/DVD must be set to the output channel of the cable converter box or satellite box (usually channel 3 or 4), to be able to set up or correct the clock automatically.



1 Press **SETUP** button to display SETUP/DISC menu.

SETUP/DISC menu will appear.

2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.

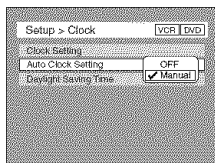
SETUP menu will appear.

3 Select "Clock" using ▲/▼/◀▶ buttons, then press **ENTER** button.

Clock menu will appear.

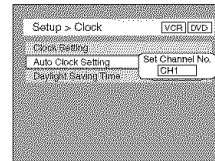
4 Select "Auto Clock Setting" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



5 Select "Manual" using ▲/▼ buttons, then press **ENTER** button.

Enter your PBS channel number using **Number** buttons or ▲/▼ buttons, then press **ENTER** button.



6 Press **SETUP** button to exit.

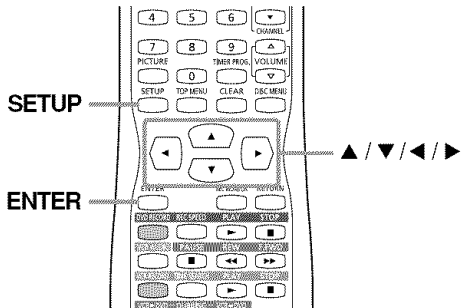
7 Press **POWER** button to turn off the unit.

This unit will search for the time when the power is off. Leave it off for several minutes to give this unit time to set the clock.

NOTE:

- The clock may set itself automatically after you connect the antenna/cable signal to this unit and plug in the power cord. After setting, turn the power on to check the current time appeared on the TV screen is correct.
- If the current time is not displayed or the displayed clock is not correct, set the clock manually.

Manual Clock Setting



1 Press **SETUP** button to display SETUP/DISC menu.

SETUP/DISC menu will appear.

2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.

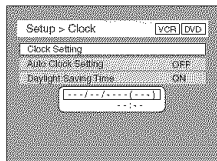
SETUP menu will appear.

3 Select "Clock" using ▲/▼/◀▶ buttons, then press **ENTER** button.

Clock menu will appear.

4 Select "Clock Setting" using ▲/▼ buttons, then press **ENTER** button.

A clock setting window will appear.

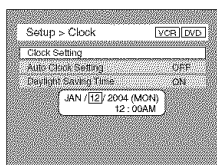


Press **ENTER** button.

Default date will appear.

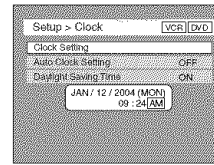
5 Enter the date (month / day / year) using ▲/▼ buttons.

Press ◀▶ buttons to move the cursor.



6 Enter the time (hour / minute) using ▲/▼ buttons.

Press ◀▶ buttons to move the cursor.

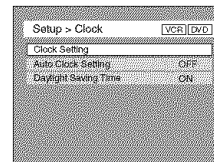


▲ NOTE:

• Your clock setting will be lost if either there is a power failure or this unit has been unplugged for more than 3 seconds when you set the clock manually.

7 Press ▲/▼ buttons to select AM or PM, then press **ENTER** button.

Clock menu will appear. The settings will be activated.



8 Press **SETUP** button to exit.

Although seconds are not displayed, they begin counting from zero.

When "Auto Clock Setting" is selected to "Manual", change it to "OFF" as following steps.

Repeat steps [1] to [3] in "Manual Clock Setting".

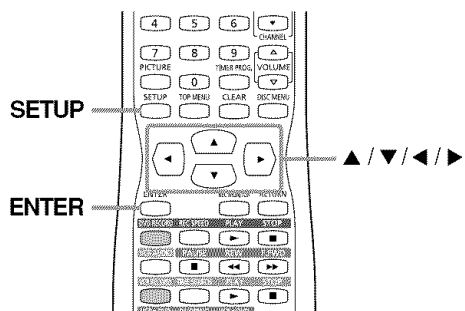
4 Select "Auto Clock Setting" using ▲/▼ buttons, then press **ENTER** button.

5 Select "OFF" using ▲/▼ buttons, then press **ENTER** button.

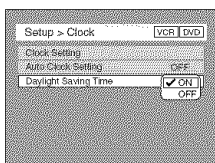
6 Press **SETUP** button to exit.

DAYLIGHT SAVING TIME

When Daylight Saving Time is ON, the clock will automatically move forward one hour on the first Sunday in April and move back one hour on the last Sunday in October.



- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.
- 3 Select "Clock" using ▲/▼/◀▶ buttons, then press **ENTER** button.
Clock menu will appear.
- 4 Select "Daylight Saving Time" using ▲/▼ buttons, then press **ENTER** button.
Daylight Saving Time options will appear.

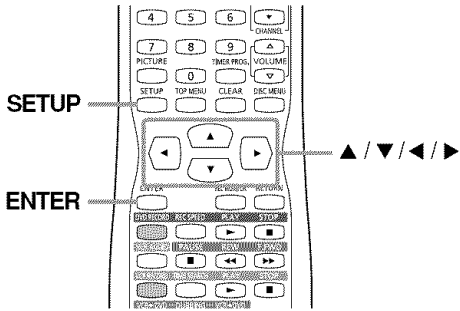


- 5 Select "ON" or "OFF" using ▲/▼ buttons, then press **ENTER** button.
Choose "ON" when currently observing the daylight saving time.
- 6 Press **SETUP** button to exit.

SELECTING TV DISPLAY MODE

You can select the TV display mode to your viewing preference for DVD viewing.

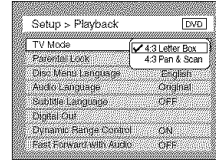
"4:3 Letter Box" has been selected as the default.



- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.

- 3 Select "Playback" using ▲/▼/◀▶ buttons, then press **ENTER** button.
Playback menu will appear.

- 4 Select "TV Mode" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



- 5 Select a desired option using ▲/▼ buttons, then press **ENTER** button.
- 6 Press **SETUP** button to exit.

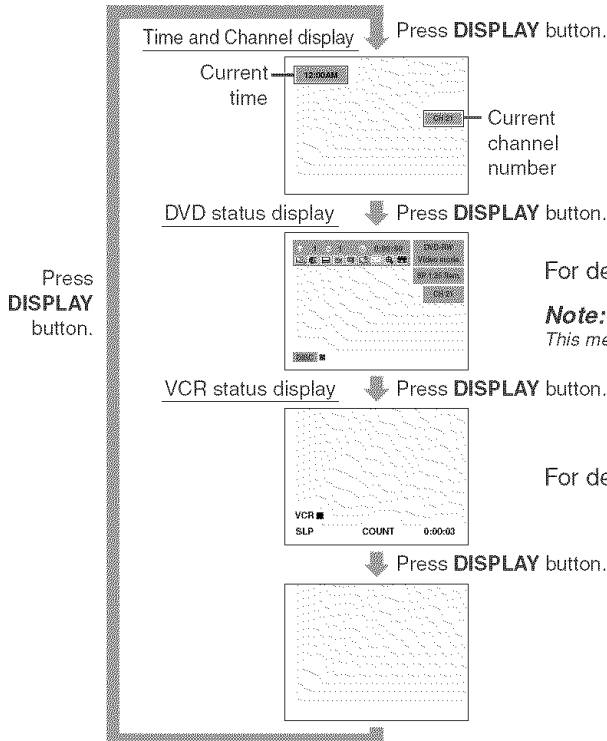


"4:3 Letter Box": black bars appear on the top and bottom of the screen.

"4:3 Pan & Scan": full height picture with both sides trimmed.

GUIDE TO DISPLAY MENUS

Every time you press **DISPLAY** button, the display will change as follows:



For details, see page 31.

Note:

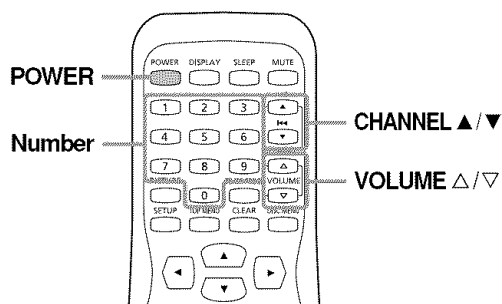
This menu is available only when a disc is inserted into the unit.

For details, see page 29.

OPERATING TV

T V FUNCTIONS

Watching TV Program



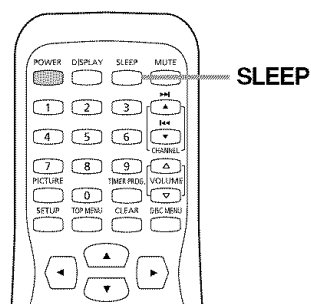
- 1** Press **POWER** button to turn on TV.
- 2** Select the desired channel using **CHANNEL ▲/▼** buttons or the **Number** buttons on the remote control.
If the TV/VCR/DVD is connected to a cable box or satellite box, the TV/VCR/DVD must be on channel 3 or channel 4, then the channel to be viewed must be selected on the cable box or satellite box.
- 3** Adjust the volume to the desired listening level using **VOLUME ▲/▼** buttons.
- 4** Adjust picture controls for a natural looking image. Refer to "Adjusting Picture" on page 23.
- 5** When you finish watching TV, press **POWER** button to turn the power OFF.

▲ Degaussing

Magnetism from nearby appliances and unshielded speaker systems might affect the color of the TV picture.

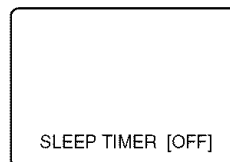
If this happens, move this TV/VCR/DVD away from the appliance. If the color is still not correct, unplug the power cord, then plug it in again 30 minutes later.

Setting Sleep Timer



The sleep timer function automatically turns off the power in the specified time period.

- 1** Press **SLEEP** button.
Sleep timer menu will appear.

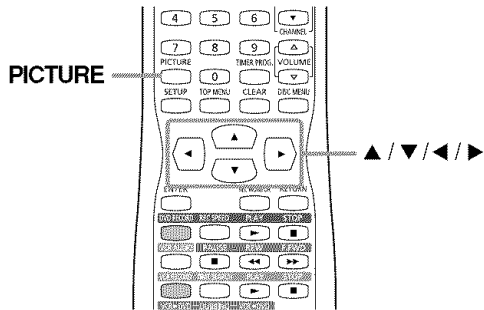


- 2** Press **SLEEP** button repeatedly to change the sleep time.
The timer can be set up to 2 hours, by 30 minutes each time you press **SLEEP** button.
- 3** To cancel the sleep timer, press **SLEEP** button repeatedly until "SLEPTIMER [OFF]" is displayed.

NOTE:

- If you disconnect the unit from the AC outlet, or if you have a power failure, the sleep time setting will be lost.
- This function does not operate during Recording mode.

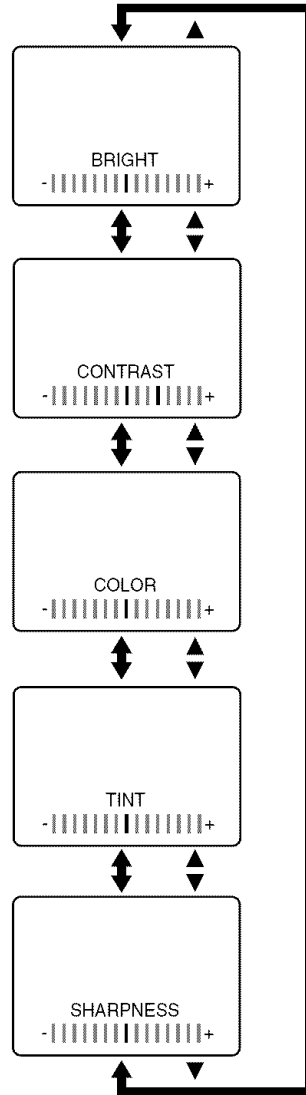
Adjusting Picture



The adjustments you can make are as follows:

- 1 Press **PICTURE** button.
 - 2 Select the setting item using **▲/▼** buttons.
- NOTE:**
• You can use also **PICTURE** button to select the setting item.
- Adjust using **◀▶** buttons.

	◀	▶
BRIGHT	to decrease brightness	to increase brightness
CONTRAST	to decrease contrast	to increase contrast
COLOR	to pale	to brilliant
TINT	to purple	to green
SHARPNESS	to soft	to clear

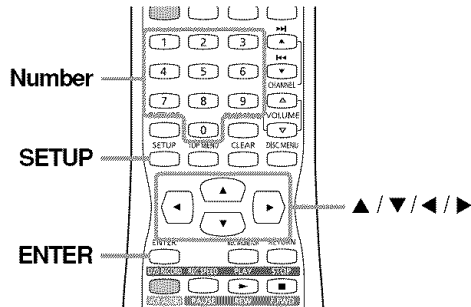


NOTE:
• In the above steps, the picture adjustment display will disappear automatically in about 5 seconds if you do not press any buttons.

OPERATING TV

TV FUNCTIONS

Setting V-CHIP



V-CHIP enables parents to prevent their children from watching inappropriate material on TV.

V-CHIP reads the ratings for programming (except for news and sports programs, unedited movies on premium cable channels, and Emergency Broadcast System signals), then denies access to programming if the program's rating meets or exceeds the limitations you select. In this case, a "PROTECTED PROGRAM by..." message appears on the TV screen.

To block certain ratings, follow the steps below.

NOTE:

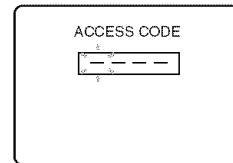
- Programming may be rated by the Motion Picture Association of America (MPAA) or according to the Television Parental Guidelines. In order to block any inappropriate programming, set your limits in both places (MPAA RATING and TV RATING).
- You cannot access the menu when the "PROTECTED PROGRAM by..." message appears. In this case, change to an unblocked channel, then press **SETUP** button.

Setting MPAA Rating

- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using **◀▶** buttons, then press **ENTER** button.
SETUP menu will appear.
- 3 Select "Display" using **▲/▼/◀▶** buttons, then press **ENTER** button.
Display menu will appear.

- 4 Select "V-CHIP Setup" using **▲/▼** buttons, then press **ENTER** button.

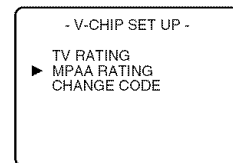
"ACCESS CODE" screen will appear.



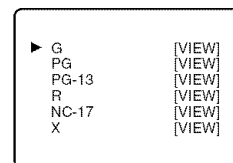
- 5 Enter the 4-digit access code using **Number** buttons.

The default access code is "0000". If you have not set a personal access code, enter "0000".

- 6 Select "MPAA RATING" using **▲/▼** buttons, then press **ENTER** button.



- 7 Select the desired limitation using **▲/▼** buttons.



Then press **ENTER** button to select [BLOCK] or [VIEW].

NOTE:

- When you select a rating category and change it to [BLOCK], all higher ratings will change to [BLOCK] automatically. Also, the lower ratings will change to [VIEW] automatically.
- When you turn "G" to [BLOCK] or [VIEW], all ratings will change to [BLOCK] or [VIEW] automatically.

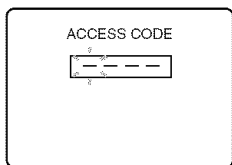
- 8 Press **SETUP** button to exit.

Rating Category Explanations

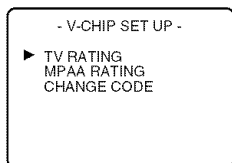
- G: General Audience
- PG: Parental Guidance suggested.
- PG-13: Unsuitable for children under 13
- R: Restricted; under 17 requires accompanying parent or adult guardian
- NC-17: No one under 17 admitted
- X: Mature audience only

Setting TV Rating

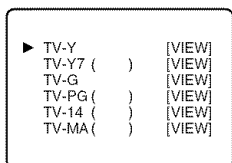
- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.
- 3 Select "Display" using ▲/▼/◀▶ buttons, then press **ENTER** button.
Display menu will appear.
- 4 Select "V-CHIP Setup" using ▲/▼ buttons, then press **ENTER** button.
"ACCESS CODE" screen will appear.



- 5 Enter the 4-digit access code using **Number** buttons.
The default access code is "0000". If you have not set a personal access code, enter "0000".
- 6 Select "TV RATING" using ▲/▼ buttons, then press **ENTER** button.



- 7 Select the desired limitation using ▲/▼ buttons.



Then press **ENTER** button to select [BLOCK] or [VIEW].

NOTE:

- Refer to the next section, "Setting V-CHIP Sub Ratings" for the details about the sub-rating menu of TV-Y7, TV-PG, TV-14 or TV-MA.
- When you select a rating category and change it to [BLOCK], all higher ratings will change to [BLOCK] automatically. Also, the lower ratings will change to [VIEW] automatically.

- The sub ratings that are set to [BLOCK] appear next to the rating category in TV RATING menu.
- When you turn "TV-Y" to [BLOCK] or [VIEW], all ratings will change to [BLOCK] or [VIEW] automatically.

- 8 Press **SETUP** button to exit.

Rating Category Explanations

- TV-Y: Appropriate for all children
- TV-Y7: Appropriate for children seven and older
- TV-G: General Audience
- TV-PG: Parental Guidance suggested.
- TV-14: Unsuitable for children under 14
- TV-MA: Mature audience only

Setting V-CHIP Sub Ratings

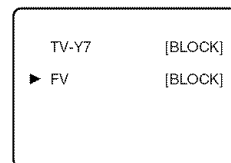
When you select TV-Y7, TV-PG, TV-14 or TV-MA and press **ENTER** button, the sub-rating menu will appear.

If you select the rating category (example: TV-PG) and change it to [BLOCK] or [VIEW], the sub-ratings (example: V for Violence) will change to [BLOCK] or [VIEW] automatically.

You can set the sub-ratings to [BLOCK] or [VIEW] individually when the rating category is set to [BLOCK]. To set the sub-ratings individually, follow the procedure below.

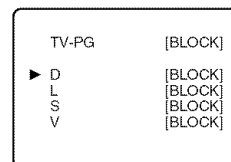
NOTE:

- **When you select TV-Y7:**
Select "FV" (Fantasy Violence) using ▲/▼ buttons.



Then, press **ENTER** button to select [BLOCK] or [VIEW]. Press **SETUP** button to exit.

- **When you select TV-PG, TV-14 or TV-MA:**
Select "D" (Suggestive Dialog), "L" (Coarse Language), "S" (Sexual Situation) or "V" (Violence) using ▲/▼ buttons.



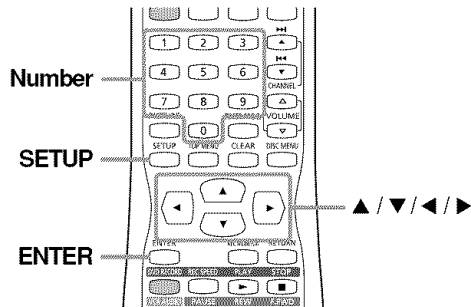
Then, press **ENTER** button to select [BLOCK] or [VIEW]. Press **SETUP** button to exit.

- When you select TV-MA, "D" will not appear.

OPERATING TV

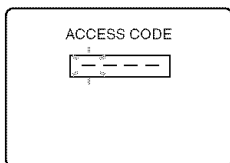
TV FUNCTIONS

Setting V-CHIP Access Code



To change the access code, follow the procedure below.

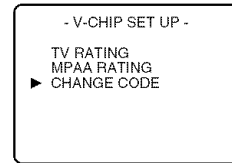
- 1** Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2** Select "SETUP" using **◀▶** buttons, then press **ENTER** button.
SETUP menu will appear.
- 3** Select "Display" using **▲/▼/◀▶** buttons, then press **ENTER** button.
Display menu will appear.
- 4** Select "V-CHIP Setup" using **▲/▼** buttons, then press **ENTER** button.
"ACCESS CODE" screen will appear.



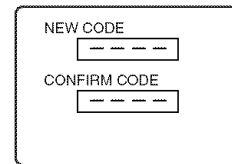
- 5** Enter the 4-digit access code using **Number** buttons.

The default access code is "0000". If you have not set a personal access code, enter "0000".

- 6** Select "CHANGE CODE" using **▲/▼** buttons, then press **ENTER** button.



The following screen will appear.



- 7** Enter the desired access code in **NEW CODE** using **Number** buttons. Then, enter the same code in **CONFIRM CODE**. Your new access code is set. The display returns to "V-CHIP SET UP" menu.

NOTE:

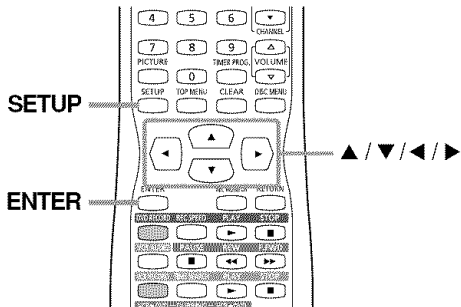
- If the code in **CONFIRM CODE** does not match the code in **NEW CODE**, repeat step [7], making sure you enter exactly the same new code in **CONFIRM CODE**.
- If a power failure occurs, the access code returns to the default access code, "0000".
- If you connect the power cord to an AC outlet that is controlled by a wall switch, the access code will be erased every time you turn off the power at the wall switch. The access code returns to the default access code.

- 8** Press **SETUP** button to exit.

▲ If You Forget Your Access Code

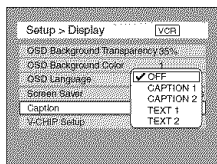
Return the access code to the default code, "0000". To restore "0000" as the personal access code, unplug the TV's power cord for 10 seconds, then plug it in again.

Selecting Closed Caption



You may view specially labeled (cc) TV programs, movies, news, prerecorded tapes, etc. with either dialogue captions or text added to the display.

- 1 Press **SETUP** button to display SETUP/DISC menu.
SETUP/DISC menu will appear.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
SETUP menu will appear.
- 3 Select "Display" using ▲▼/◀▶ buttons, then press **ENTER** button.
Display menu will appear.
- 4 Select "Caption" using ▲▼ buttons, then press **ENTER** button.
Option window will appear.



- 5 Select a desired option using ▲▼ buttons, then press **ENTER** button.
Select "OFF" to cancel the closed caption system.
- 6 Press **SETUP** button to exit.

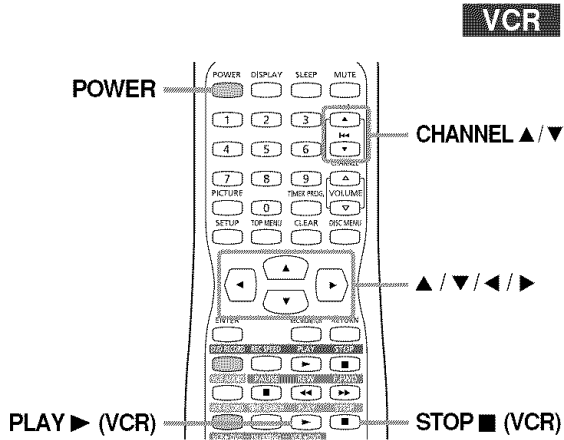
NOTE:

- If the TV/VCR/DVD displays a black box on the TV screen, this means that the TV/VCR/DVD is set to the TEXT mode. To clear screen, select "CAPTION 1", "CAPTION 2" or "OFF".

OPERATING VCR

VCR FUNCTIONS

Playback



- 1 Press **POWER** button on the remote control or the main unit.
- 2 Insert a prerecorded tape, then press **PLAY ► (VCR)** button to begin playback.

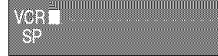
NOTE:

 - When a tape without record tab is inserted, the unit will start playback automatically.
 - Tracking will be automatically adjusted upon playback. To adjust the tracking manually, press the **CHANNEL ▲/▼** buttons on the main unit or **CHANNEL ▲/▼** buttons on the remote control.
- 3 Press **STOP ■ (VCR)** button to stop playback.
- 4 Press **STOP/▲ EJECT** button on the main unit to eject the tape.

Recording

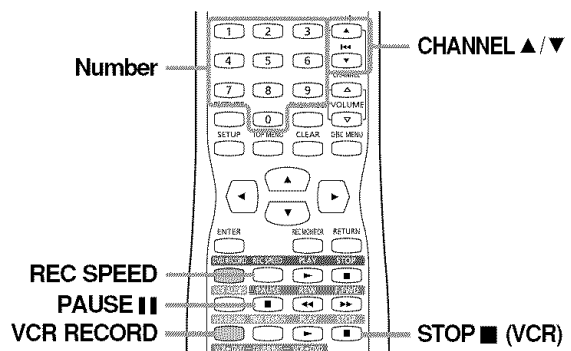
Normal Recording

- VCR**
- Before recording, make sure:
- You can ONLY watch the same TV program that is being recorded.
 - Stereo or SAP is selected (page 17).
 - The desired channel should be selected by pressing the **Number** buttons on the remote control or **CHANNEL ▲/▼** buttons on the main unit.
 - A tape with a record tab should be loaded inside the unit.
 - The desired recording speed should be selected in SP (standard play) or SLP (super long play) mode by pressing **REC SPEED** button twice on the remote control. Use **▲/▼** buttons to change the recording speed.
 - Refer to page 58 for instructions on timer recording.



Recording speed:

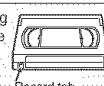
Tape speed	Recording/Playback Time		
Type of tape	T60	T120	T160
SP mode	1hour	2hours	2-2.3hours
SLP mode	3hours	6hours	8hours



- 1 Press **VCR RECORD** button to begin the recording. To temporarily stop recording, press **PAUSE |||** button. Press **VCR RECORD** button to resume the recording. When 5 minutes have passed since the unit entered Pause mode, the recording will automatically stop.
- 2 Press **STOP ■ (VCR)** button when the recording is completed.

▲ NOTE Accidental erasure prevention

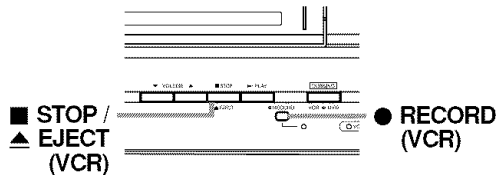
To prevent accidental recording on a recorded cassette, remove its record tab. To record on it later, cover the hole with cellophane tape.



One-Touch Timer Recording

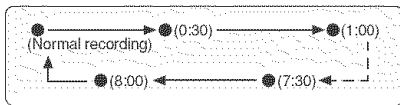
VCR

This feature allows you to set the recording length simply by pressing ● **RECORD (VCR)** button on the main unit.



1 During normal recording, press ● **RECORD (VCR)** button on the main unit to begin one-touch timer recording.

You can select a fixed recording time by pressing the ● **RECORD (VCR)** button on the main unit repeatedly.



When one-touch timer recording finishes, the unit turns off automatically.

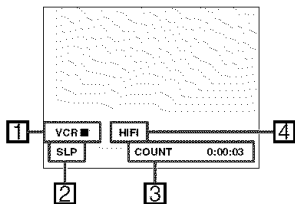
To cancel the one-touch timer recording in the specified time, press **STOP** (VCR) btn.

NOTE:

• If One-Touch Timer Recording finishes in VCR during play-back or Record mode in DVD, the VCR will be in Stop mode

Guide to Displays

Press **DISPLAY** btn repeatedly bring up the display for VCR

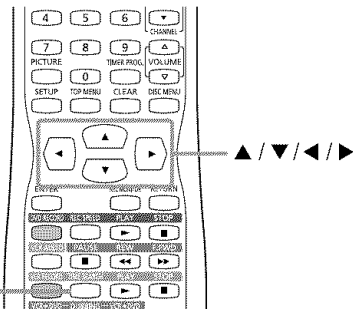


1. Status of the current tape appears for 5 seconds
2. A recording speed appears for 5 seconds
3. Indicates Tape Counter
4. Audio status of the played tape

Time Search

VCR

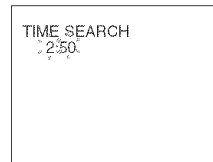
This feature allows you to go to a specific point on a tape by entering the exact amount of time to skip.



TIME SEARCH

1 Press **TIME SEARCH** btn.
Time search menu will appear.

2 Enter the desired time to skip using ▲/▼ btns



3 Press ◀▶ btns for time search.

▲ Forward or Reverse

If you want to move a tape forward, press ▶ btn.

If you want to move a tape backward, press ◀ btn.

After time search, the unit will play the tape automatically.

NOTE:

- Time Search function is not available during recording.
- To stop the time search, press **STOP** (VCR) button at step [3].
- To exit the time search menu, press **RETURN** button at step [2].
- If a tape reaches to the end during the search, this unit will cancel the search and rewind the tape.

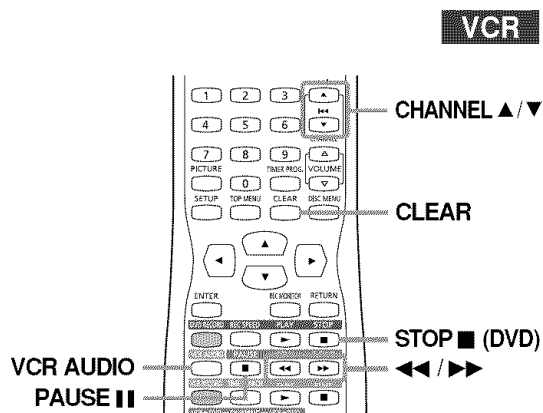
OPERATING VCR

VCR FUNCTIONS

OPERATING VCR

VCR FUNCTIONS

Other Functions



- When you want to enjoy the sound in monaural, select "MONO".

Your Selection	HIFI		MONO
	L-channel	R-channel	
Type of recorded tape	L	R	L+R
non Hi-Fi tapes	Monaural	Monaural	Monaural
Hi-Fi tapes recorded in Hi-Fi stereo	L	R	L+R
Hi-Fi tapes recorded main audio program	Main audio program	Main audio program	Main audio program
Hi-Fi tapes recorded second audio program	Second audio program	Second audio program	Second audio program

To cue or review picture during playback (Picture Search):

Press ►► or ◀◀ buttons during playback. Press it again and the unit will search in super high speed. (in the SLP mode only)

To freeze the picture on TV screen during playback (Still mode):

Press PAUSE || button. Each time you press the button, the picture will move forward by one frame. If the picture begins to vibrate vertically during the still mode, stabilize the picture by pressing the CHANNEL ▲/▼ buttons.

Counter Reset:

Press CLEAR button. The counter appears on the TV screen. Press CLEAR button again to reset.

To playback in slow motion:

Press PAUSE || button during playback, then press ►► button. Playback in slow motion will start.

If noise bars appear on the TV screen, you can reduce them by pressing CHANNEL ▲/▼ buttons.

NOTE:

- Still/Slow/Pause mode will be automatically cancelled in 5 minutes to prevent damage to the tape and the video head.
- To return to playback from the Picture Search/Still/Slow mode, press PLAY ► (VCR) button.

When you playback a tape recorded in Hi-Fi stereo:

Press VCR AUDIO button on the remote control to select Hi-Fi or MONO for playback sound mode.

- When you want to enjoy the sound in stereo, select "HIFI".

Auto Rewind-Eject

VCR

- When the end of a tape is reached during recording, playback, or fast-forward, the tape will automatically rewind to the beginning. After rewinding finishes, the TV/VCR/DVD will eject the tape.
- The tape will not auto-rewind during timer recording or One-Touch Timer Recording.

OPERATING DVD RECORDER

PLAYING

About DVD Playing

Before you play DVD discs, read the following information.

Playable discs

This unit is compatible to play the following discs.

To play a DVD, make sure that it meets the requirements for Region Codes and Color Systems as described below. Discs with the following logos can be played on the unit. Other Disc types are not guaranteed to play.

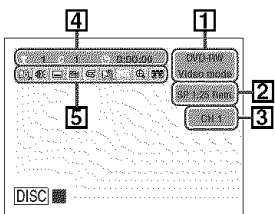
Color systems

Disc	Logo
DVD VIDEO	
DVD-RW (VIDEO/VR MODE)	
DVD-R (VIDEO MODE)	
CD-DA (AUDIO CD)	
CD-R (CD-DA FORMAT, MP3 files)	
CD-RW (CD-DA FORMAT, MP3 files)	

DVDs are recorded in different color systems throughout the world. The most common color systems are NTSC (which are used primarily in the United States and Canada), PAL and SECAM. This unit uses NTSC, so DVDs you play must be recorded in the NTSC system. You cannot play DVDs recorded in other color systems.

Guide to Displays

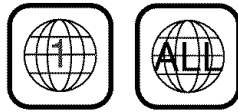
Press **DISPLAY** button repeatedly to bring up the display menu for DVD status. This menu will give you the information on the playing disc. Some operations are available while disc is playing.



NOTE:
This menu is available only when a disc is inserted into the unit.

Region codes

This unit has been designed to play DVD discs with Region One (1). DVDs must be labeled for ALL regions or for Region 1 in order to play on this unit. You cannot play DVDs labeled for other regions. Make sure to check the symbols below on your DVDs. If these region symbols are not found on your DVD, you cannot play that DVD in this unit.

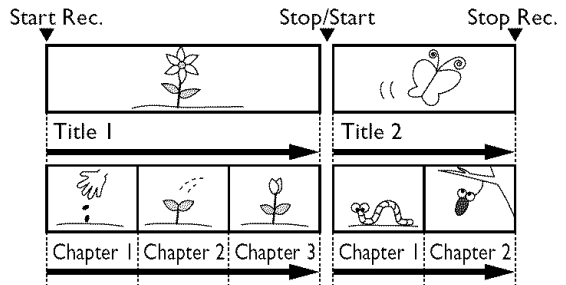


The number inside the globe refers to region of the world. Region 1 represents the United States, Canada, Bermuda, the U.S. Virgin Islands and small regions near Australia.

A DVD labeled for a specific region can only play on the unit with the same region code.

DVD playback

The contents of DVD disc are generally divided into titles. Titles may be further subdivided into chapters.



1. Indicates a disc type and a format mode.
2. Indicates a recording speed and possible recording time left.
3. Indicates a current channel number.
4. Indicates a title number, chapter number and the time elapsed of disc play.

5. Icon Legend:

- : Search
- : Audio
- : Subtitle
- : Angle (except VR mode)
- : Repeat
- : Marker
- : Noise Reduction
- : Zoom
- : Virtual Surround

OPERATING DVD RECORDER

VCR FUNCTIONS / PLAYING

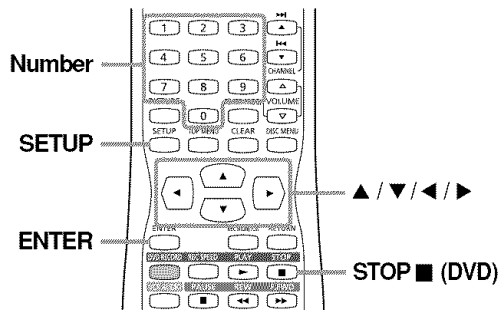
OPERATING DVD RECORDER

PLAYING

Language Setting

NOTE:

• Only the languages supported by the disc can be selected.



Press **STOP** ■ (DVD) or **STOP** ■ (VCR) button if you are playing a disc or tape.

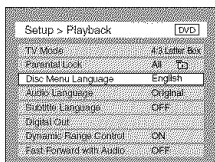
- 1 Press **SETUP** button to display SETUP/DISC menu. SETUP/DISC menu will appear.
- 2 Select "SETUP" using **◀▶** buttons, then press **ENTER** button. SETUP menu will appear.
- 3 Select "Playback" using **▲/▼/◀▶** buttons, then press **ENTER** button. Option window will appear.
- 4 Select a desired item using **▲/▼** buttons, then press **ENTER** button.

NOTE:

- Audio Language setting may not be available to some discs.
- You can change or switch off the subtitles on a DVD disc also from the disc menu if it is available.

Disc Menu Language (Default : English)

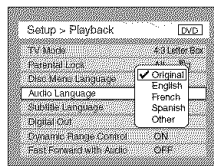
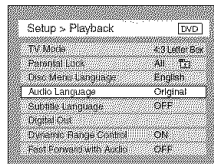
Set the language for Disc Menu.



- Select a setting using **▲/▼** buttons, then press **ENTER** button. Your setting will be activated.

Audio Language (Default : Original)

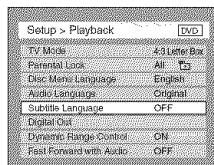
Set the Audio language.



- Select a setting using **▲/▼** buttons, then press **ENTER** button. Your setting will be activated.

Subtitle Language (Default : OFF)

Set the subtitle language.



- Select a setting using **▲/▼** buttons, then press **ENTER** button. Your setting will be activated.

If "Other" is selected, press 4-digit code using **Number** buttons.

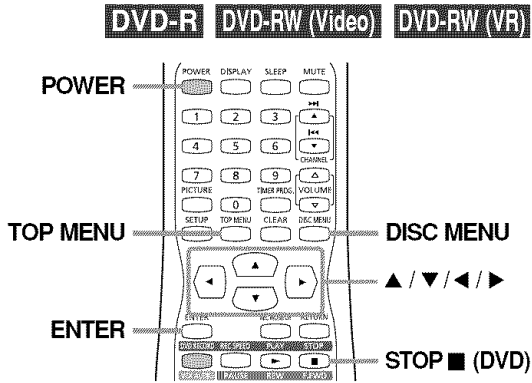


- When you finish entering the code, press **ENTER** button. Refer to the language code table on page 78.

- 5 Press **SETUP** button to exit SETUP menu.

Basic Playback

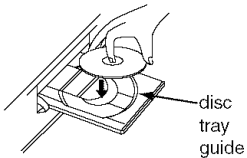
Playback



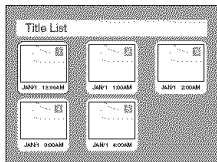
- 1 Press **POWER** button.
- 2 Press **▲ OPEN/CLOSE** button on the main unit to open the disc tray.
The disc tray will open.
- 3 Place the disc onto the disc tray with its label facing up and make sure to align the disc to the disc tray guide. Press **▲ OPEN/CLOSE** button again to close the disc tray.

NOTE:

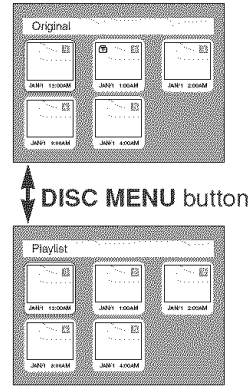
- This operation may take a few minutes to complete.
- Some discs may start playing automatically.



- 4 Press **TOP MENU** button to display the title menu.
You can change "Original" or "Playlist" of VR mode using **DISC MENU** button.
Video mode:

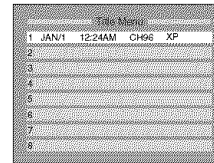


VR mode:



NOTE:

- Press the **TOP MENU** button to exit the menu.
- For DVD-R (Video mode) and DVD-RW (Video mode) discs which are already finalized, a title list will be displayed instead of thumbnails as shown below.



- 5 Select a desired title using **▲/▼/◀▶** buttons, then press **ENTER** button.
Playback will start.
 - 6 Press **STOP (DVD)** button to stop playback.
- NOTE:**
- You can resume play from where you stopped playing the disc. (Resume play) Refer to page 36 for details about resume play.

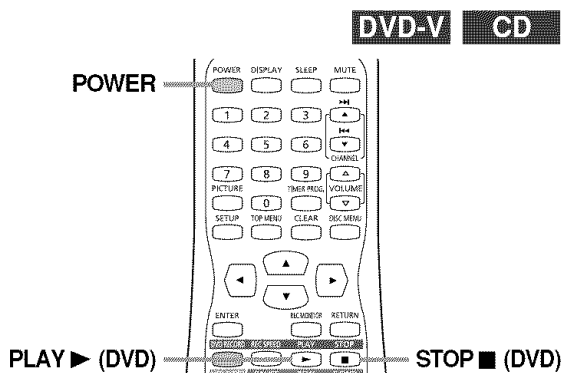
To eject the disc, press **▲ OPEN/CLOSE** button to open the disc tray, then remove the disc before turning off the unit.

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1 Press **POWER** button.

2 Press **▲ OPEN/CLOSE** button on the main unit to open the disc tray.

The disc tray will open.

3 Place the disc onto the disc tray with its label facing up and make sure to align the disc to the disc tray guide.

4 Press **PLAY ► (DVD)** button to start playing.

Playback will start.

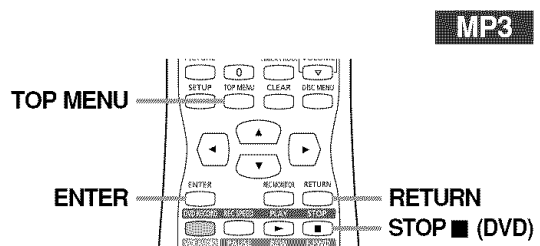
- If you are playing a DVD-Video disc, a menu may appear.

Refer to page 35 for details about a disc menu.

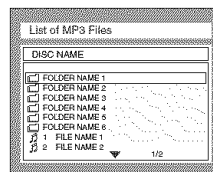
5 Press **STOP ■ (DVD)** button to stop playing.

NOTE:

- Some discs may start playing automatically.



1 In stop mode, press **TOP MENU** button to bring up the MP3 menu.



To exit the menu, press **TOP MENU** button again.

NOTE:

- If you press **▲ OPEN/CLOSE** button to close the disc tray, the automatic playback will not start, but MP3 menu will appear.

2 Press **▲/▼** buttons to select a desired folder (group) or track, then press **ENTER** button.

When selecting track:

Playback will start.

When selecting the folder:



The files in the folder will appear.

Press **▲** or **▼** button to select the track or folder you want, then press **ENTER** button.

- Press **◀** button or **RETURN** button to go to the previous hierarchy.

- Press **STOP ■ (DVD)** button to return to the first item.

Hints for MP3 files:

- Folders are known as Groups, files are known as Tracks.
- Folders are accompanied by  icon.
- MP3 files are accompanied by  icon.
- Playback will start from the selected track and go to the next one in turn.
- The system can recognize up to 255 groups (or folders) and up to 255 tracks.
- The name of the group and track can be displayed in up to 32 characters. Unrecognizable characters will be replaced with asterisks.
- If the folder includes no files, "No Files" will be displayed.
- The audio source of MP3 files cannot be recorded as digital sound by an MD or DAT deck.
- Files whose extension other than ".mp3 (MP3)" will not be listed in the MP3 menu.
- Some unplayable folders or tracks may be listed in the MP3 menu due to the recording status.

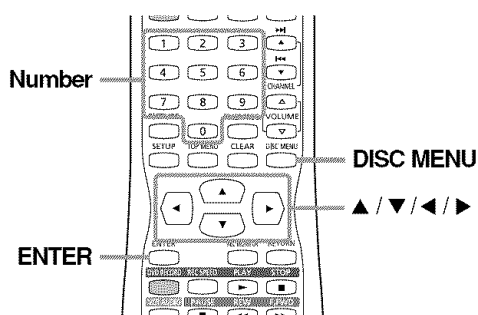
This unit recommends the files recorded under the following circumstances:

- Sampling frequency: 44.1kHz or 48kHz.
- Constant bit rate: 112kbps - 320kbps.

Playback with Disc Menu

DVD-V

A DVD disc contains a disc menu that describes the contents or allows you to customize the playback. For example, the menu may offer choices for subtitle languages, special features, or chapter selection. Some disc menus are automatically displayed when you start playback, others only appear when you press **DISC MENU** button.




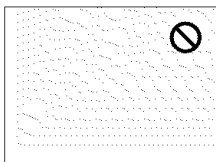
1 Press **DISC MENU** button.

The DVD main menu will appear.

NOTE:

• Menus vary among discs. Refer to the information accompanying the disc for details.

If the feature is not available,  may appear on the TV screen.



2 Select an item using buttons, then press **ENTER** button to confirm.

Continue this step to set up all the features you want or to start playing the disc from the menu.

DISC MENU button:

Displays a DVD disc menu which varies with the disc and may be the same as the 'Title menu.'

 **buttons:**

Moves the cursor on the screen.

ENTER button:

Selects the currently highlighted menu option.

Number buttons:

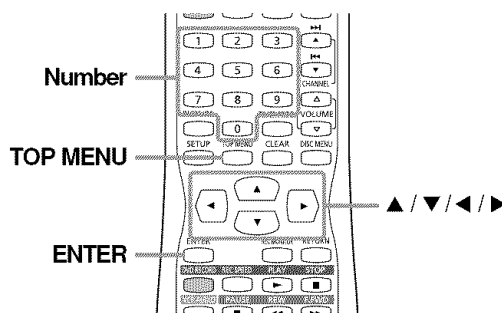
Selects a numbered menu option (only for some discs). **ENTER** button should be pressed after pressing **Number** buttons.

3 Press **DISC MENU** button to exit the menu.

Playback with Title Menu

DVD-V

Some DVDs have a title menu, which lists the titles available on them. It helps you to start playback at a specific title.




1 Press **TOP MENU** button.

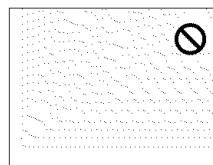
The title menu will appear.

NOTE:

• The **TOP MENU** button will not always be active with all DVDs.

• Menus vary among discs. Refer to the information accompanying the disc for details.

If the feature is not available,  may appear on the TV screen.



2 Select a title to play using the buttons, then press **ENTER** button.

Playback will begin at the title you selected.

TOP MENU button:

Displays the 'Title menu' of a DVD disc that varies with the disc.

 **buttons:**

Moves the cursor on the screen.

ENTER button:

Selects the current highlighted menu option.

Number buttons:

Selects a numbered menu option (only for some discs). **ENTER** button should be pressed after pressing **Number** buttons.

3 Press **TOP MENU** button to exit the title menu.

OPERATING DVD RECORDER

PLAYING

Special Playback

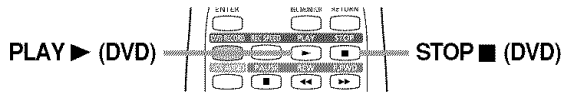
Resume



You can resume play from where you stopped playing the disc last.

NOTE:

• For MP3 files, playback will resume from the beginning of the track at which playback was stopped.



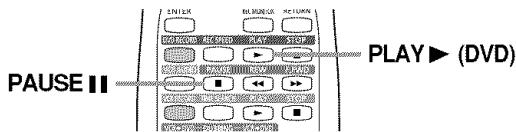
- 1 During playback, press **STOP** (DVD) button. The resume message will appear.



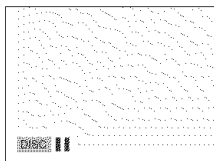
- 2 Press **PLAY** (DVD) button.

In a few seconds, playback will resume from the point at which it stopped last. You can resume play at the same point even if you turn off the unit. To cancel the resume play and start playing the disc from the beginning, press **STOP** (DVD) button again while the playback is stopped.

Pause

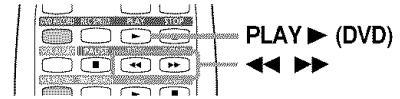
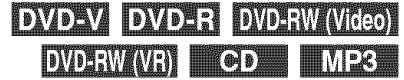


- 1 During playback, press **PAUSE** button. Playback will pause and sound will be muted.



- 2 Press **PLAY** (DVD) button to resume play.

Fast Forward / Fast Reverse



- 1 During playback, press **Fast Forward** or **Fast Reverse** button. Every time you press **Fast Forward** or **Fast Reverse** button, approximate speed changes as follows.



For Audio CDs, approximate speed is set at x8 with sound.

For MP3 files, approximate speed is set at x16.

To return to the normal playback, press **PLAY** (DVD) button.

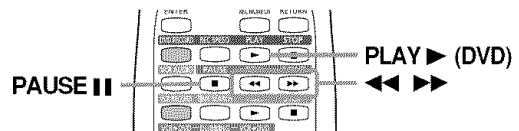
NOTE:

• For DVD discs, the sound will be output during playback in fast forward of x2 only if you set "Fast Forward with Audio" to "ON" for the "Playback" setting in the SETUP menu.

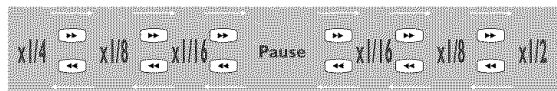
• Forward/reverse speed will be indicated with icons as follows.

Forward (Approx. Speed)	Reverse (Approx. Speed)
x2 :	x5 :
x20:	x20:
x40:	x40:

Slow Forward / Slow Reverse



- 1 During playback, press **Slow Forward** or **Slow Reverse** button, then press **Fast Forward** or **Fast Reverse** button. Every time you press **Fast Forward** or **Fast Reverse** button, approximate speed will be changed as follows.



To return to the normal playback, press **PLAY** (DVD) button.

NOTE:

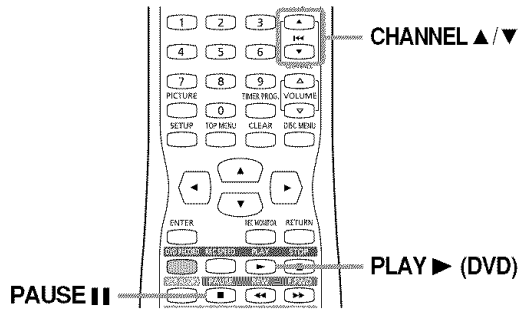
• The sound will remain mute.

• Forward/reverse speed will be indicated with icons as follows.

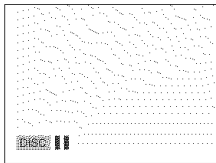
Forward (Approx. Speed)	Reverse (Approx. Speed)
x1/16:	x1/16:
x1/8 :	x1/8 :
x1/2 :	x1/4 :

Step by Step

DVD-V DVD-R DVD-RW (Video) DVD-RW (VR)



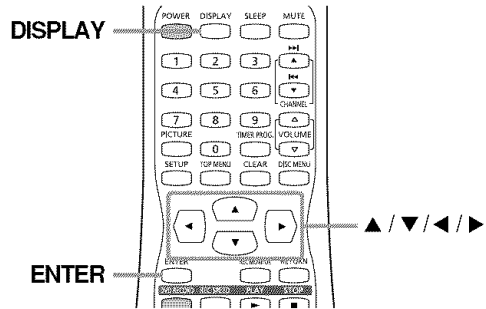
- 1 During playback, press **PAUSE ||** button.
Playback will pause and sound will be muted.



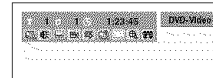
- 2 Press **CHANNEL ▲** button repeatedly.
Every time you press the button, the playback will go forward by one frame (or step) with the sound muted.
Press **CHANNEL ▼** button repeatedly.
Every time you press the button, the playback will go backward by one frame.
- 3 Press **PLAY ► (DVD)** button to resume play.


Zoom

DVD-V DVD-R DVD-RW (Video) DVD-RW (VR)



- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.

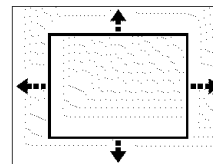


- 2 Select  icon using ◀▶ buttons, then press **ENTER** button.
Zoom option menu will appear.



Three options (x1.2, x1.5, x2.0) excluding the current zoom rate are displayed.

- 3 Select a desired zoom factor to zoom using ◀▶ buttons, then press **ENTER** button.
The zoom area will be displayed.



- 4 Select a desired zoom position using ▲/▼/◀/▶ buttons, then press **ENTER** button.
The zoom play will start.

NOTE: Zoom

- When selecting a smaller factor than the current one, the zoom area will not be displayed.
- To remove the zoom menu, press **DISPLAY** button again at step [1].
- To cancel the zoom function, select x1.0 using ◀▶ buttons, then press **ENTER** button.

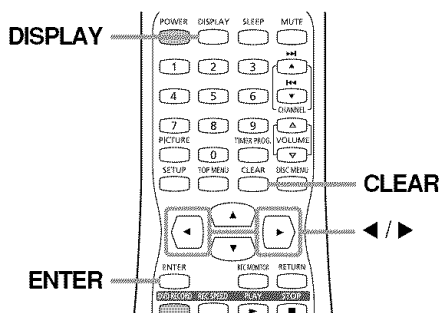
OPERATING DVD RECORDER

PLAYING

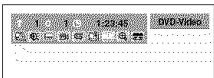
Setting Marker



This feature allows you to assign a specific point on a disc to be returned to later.



1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.

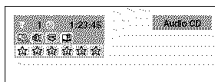
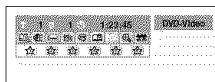


2 Select icon using buttons, then press **ENTER** button.

Marker setup menu will appear.

Screen for DVD:

Screen for CD:



3 Select a desired marker number using buttons.

When it reaches the desired point, press **ENTER** button.

4 To return to the marker later, select the desired marker number using buttons, then press **ENTER** button.

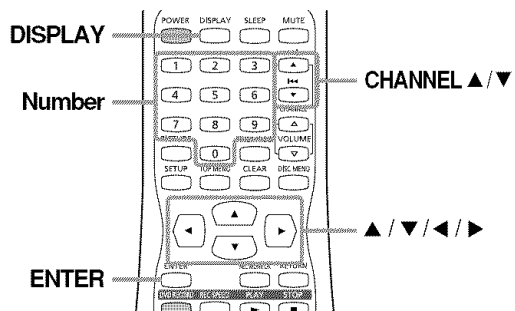
NOTE: Marker

- You can mark up to 6 points.
- To clear a marker, select the marker number to be cleared, then press **CLEAR** button.
- All markers will be erased by the following operation:
Opening the disc tray.
Turning off the power.
Recording to a recordable disc.
Changing the mode between Original and Playlist.(VR mode)
Editing the disc.

Search



Title/Chapter Search



Using CHANNEL ▲▼ buttons

1 During playback, press **CHANNEL ▲** button to skip the current title or chapter and move to the next.

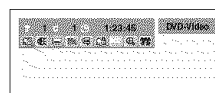
The title or chapter will move forward by one title at a time.

To go back to the previous title or chapter, press **CHANNEL ▼** button. The title or chapter will move backward by one title at a time.

Only press **CHANNEL ▼** button once to go back to the top of the current title.

Using DISPLAY button

1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



2 Select icon using buttons, then press **ENTER** button.

'T' for title will be highlighted.

Title:

Enter a desired title number to search using buttons or **Number** buttons, then press **ENTER** button. Title search will start.

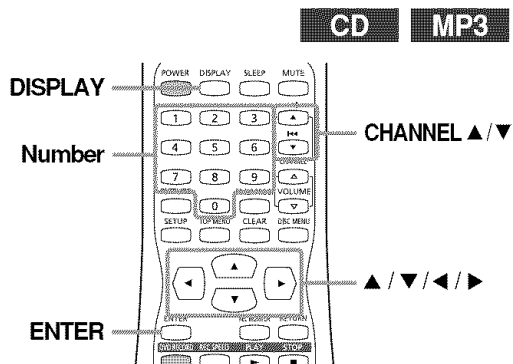
Chapter:

To move to 'C' for chapter, press .

Enter a desired chapter number to search using buttons or **Number** buttons, then press **ENTER** button.

Chapter search will start.

Track Search

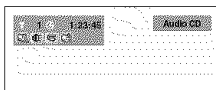


Using CHANNEL ▲▼ buttons

- 1 During playback, press **CHANNEL ▲** button to skip the current track and move to the next. The track will move forward one at a time. To go back to the previous track, press **CHANNEL ▼** button. The track will move backward one track at a time.

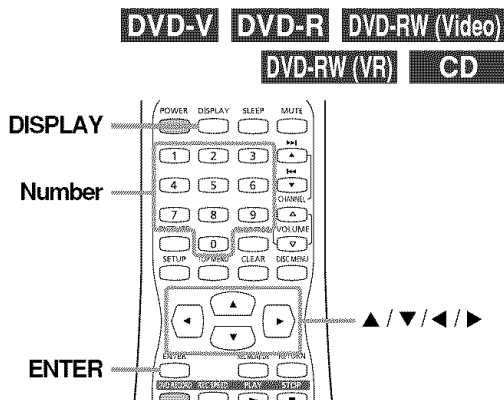
Using DISPLAY button

- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



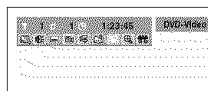
- 2 Select icon using **◀▶** buttons, then press **ENTER** button. 'T' for track will be highlighted.
- 3 Enter a desired track number to search using **▲/▼** buttons or **Number** buttons, then press **ENTER** button. Track search will start.

Time Search

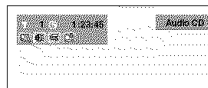


- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.

Screen for DVD:



Screen for CD:



- 2 Select icon using **◀▶** buttons, then press **ENTER** button. 'T' for title or track will be highlighted. To move to the (clock) icon, press **▶** button.
- 3 Enter a desired time to search using **▲/▼** buttons or **Number** buttons, then press **ENTER** button. Time search will start.

NOTE:

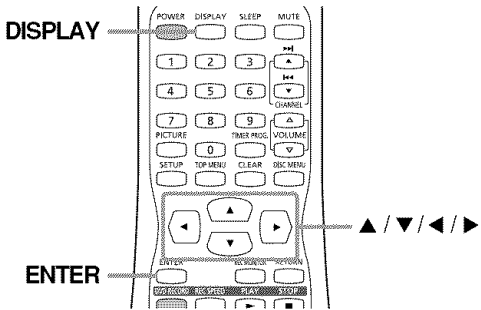
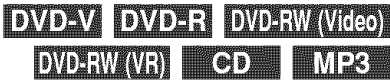
* Time search function is available only in the same track or title.

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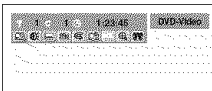
PLAYING

Repeat/Random/Program Play

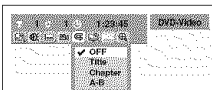
Repeat Play



- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



- 2 Select icon using buttons, then press **ENTER** button. Repeat menu will appear.



NOTE:
• To cancel the repeat playback, select **OFF**.

- 3 Select a desired option to repeat using , then press **ENTER** button.

Title: DVD only

The current title will be played repeatedly.

Chapter: DVD only

The current chapter will be played repeatedly.

All: CD, MP3 and DVD-RW (VR mode only)

The current disc will be played repeatedly.

A-B:

The A-B point will be played repeatedly.

When pressing **ENTER** button while A-B is highlighted, the starting point (A) will be decided.

Press **ENTER** button again to select the ending point (B).

NOTE:
• The A-B Repeat playback can only be set within the current title (for DVDs), or current track (for Audio CDs).

Track: CD, MP3 only

The current track will be played repeatedly.

Group: MP3 only

The current group will be played repeatedly.

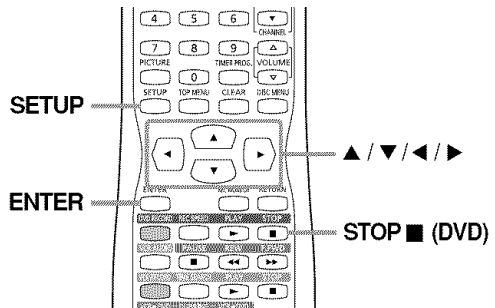
NOTE:

• You cannot select "Group" during the random playback of MP3 files.

Random Play



You can play tracks on a disc randomly instead of playing it in the recorded sequence.



- 1 In the stop mode, press **SETUP** button to display SETUP/CD menu. SETUP/CD menu will appear.

- 2 Select "CD" using , then press **ENTER** button. CD Playback Mode menu will appear.

- 3 Select "Random Play" using , then press **ENTER** button.

Random playback will start.

NOTE:

• To cancel random playback, press **STOP** button during random playback.

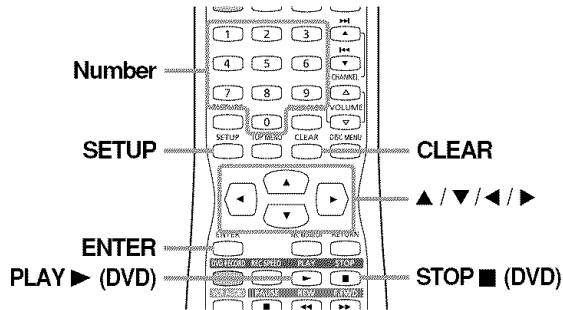
Program Play



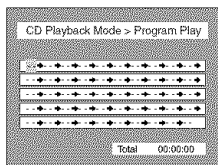
You can program tracks on a disc to be played in your desired order.

NOTE:

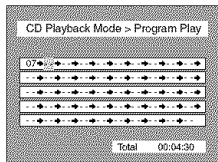
• You can make program up to 50 tracks.



- 1 In the stop mode, press **SETUP** button to display SETUP/CD menu. SETUP/CD menu will appear.
- 2 Select "CD" using **◀▶** buttons, then press **ENTER** button. CD Playback Mode menu will appear.
- 3 Select "Program Play" using **▲▼** buttons, then press **ENTER** button. Program Play list will appear.



- 4 Select a desired track using **▲▼** buttons, then press **ENTER** button or **▶** button. A cursor will move to the next.



NOTE:

• You may also select a desired track using **Number** buttons.
 • To erase tracks you selected, press **CLEAR** button.

- 5 Press **PLAY ▶ (DVD)** button to start program playback. Program playback will start according to your program.

NOTE:

• To cancel program playback, press **STOP ■ (DVD)** button twice during program playback.

Selecting AUDIO / VIDEO Menu

You can select an audio or video format, as you prefer depending on the contents of the disc you are playing.

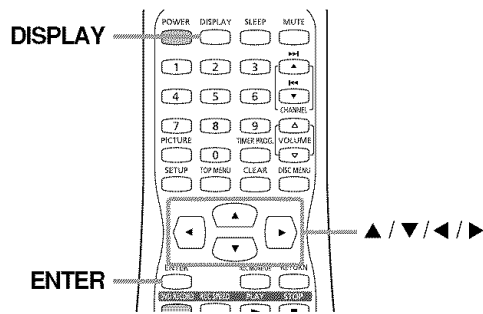
Switching Audio Soundtrack



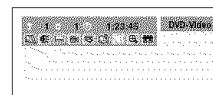
When playing a DVD-Video disc recorded with two or more soundtracks (mostly in different languages), you can switch between them anytime during playback.

NOTE:

• Some discs will only allow you to change the soundtrack from the disc's menu. Press **TOP MENU** button or **DISC MENU** button to display the disc's menu.
 • On DVD-RW discs recorded in VR mode that may have both a main and a sub audio channel, you can switch to main (L), sub audio (R) or a mix of both (L/R).

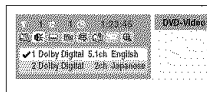


- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.

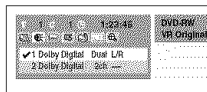


- 2 Select **ⓐ** icon using **◀▶** buttons, then press **ENTER** button.

Audio menu will appear.
 <DVD-Video>



<DVD-RW VR mode>



Continue on next page.

OPERATING DVD RECORDER

PLAYING

OPERATING DVD RECORDER

PLAYING

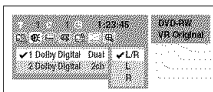
- 3** Select a desired audio soundtrack using ▲/▼ buttons, then press **ENTER** button.

<DVD-Video>

Audio soundtrack will switch.

<DVD-RW VR mode>

You can switch to main (L), sub audio (R) or a mix of both (L/R). In this case, follow the step [4].



- 4** Select a desired audio channel using ▲/▼ buttons, then press **ENTER** button.

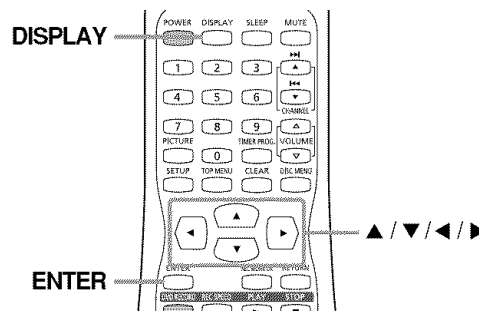
Audio channel will switch.

NOTE:

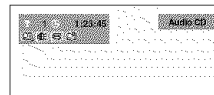
- This unit **CANNOT** record in both stereo and SAP (Secondary Audio Program) at the same time.

CD MP3

When playing Audio CDs or MP3 files you can switch between stereo, the left channel only or the right channel only.



- 1** During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.

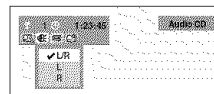


- 2** Select **C** icon using ◀▶ buttons, then press **ENTER** button.

Audio menu will appear.

- 3** Select a desired audio channel using ▲/▼ buttons, then press **ENTER** button.

Audio channel will change.



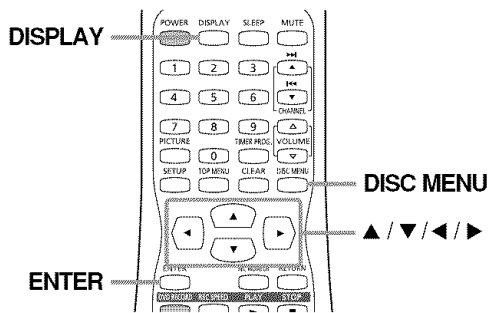
Switching Subtitles

DVD-V DVD-RW (VR)

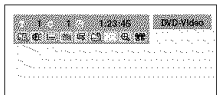
Many DVD Video discs have subtitles in one or more languages. The case usually tells you which subtitle languages are available. You can switch subtitle languages anytime during playback.



NOTE: Top Menu / Disc Menu

- Some discs allow you to change the subtitle only from the disc's menu. Press **TOP MENU** button or **DISC MENU** button to display the disc's menu.

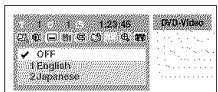



- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



- 2 Select  icon using  buttons, then press **ENTER** button.

Subtitle menu will appear.



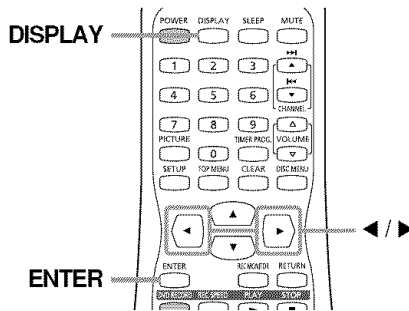
- 3 Select a desired subtitle language using  buttons, then press **ENTER** button.

Subtitle will be displayed in the selected language.

When selecting "OFF", subtitle will disappear.

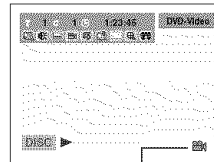
Switching Camera Angles

DVD-V





- Some DVD Video discs feature scenes shot from two or more angles, check the case of the DVD for details: it should be marked with an angle icon if it contains multi-angle scenes.

- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



Angle icon appears when a switching camera angle is available.

- 2 Select  icon using  buttons, then press **ENTER** button.

Angle will switch each time you press **ENTER** button.

OPERATING DVD RECORDER

PLAYING

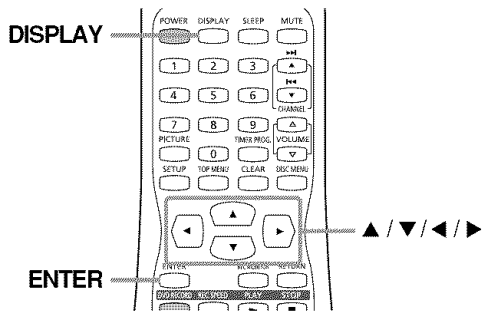
OPERATING DVD RECORDER

PLAYING

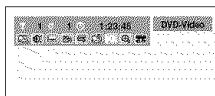
Reducing Block Noise

DVD-V DVD-R DVD-RW (Video) DVD-RW (VR)

This function reduces noise in the playback picture.

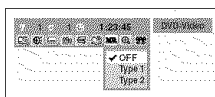


- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



- 2 Select **NR** icon using **◀▶** buttons, then press **ENTER** button.

NR menu will appear.



- 3 Select a desired option using **▲/▼** buttons, then press **ENTER** button.

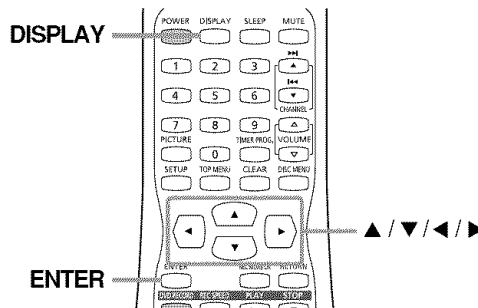
Your setting will be activated.

When playing back discs recorded in long time mode such as SLP or SEP mode, select "Type 1" or "Type 2". ("Type 2" is more effective.) When playing back prerecorded DVD discs with little or no noise, select "OFF".

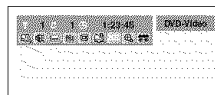
Virtual Surround Setting

DVD-V DVD-R DVD-RW (Video) DVD-RW (VR)

Switching to virtual surround setting allows you to enjoy DVD disc with a surround effect.

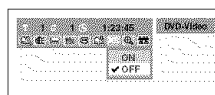


- 1 During playback, press **DISPLAY** button repeatedly until the DVD status display menu appears.



- 2 Select **Virtual Surround** icon using **◀▶** buttons, then press **ENTER** button.

Virtual surround menu will appear.



- 3 Select "ON" using **▲/▼** buttons, then press **ENTER** button.

Virtual surround setting will be activated.

NOTE:

- To turn off virtual surround, select "OFF" in Virtual Surround menu screen.

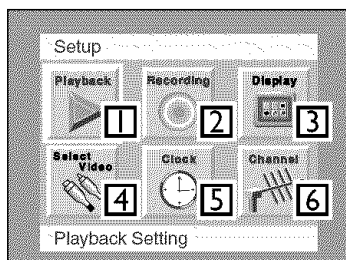
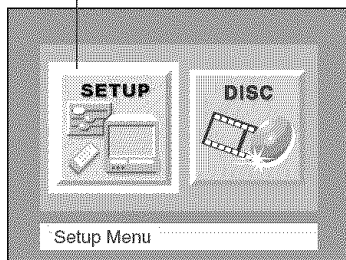
GUIDE TO DISPLAYS ON SCREEN MENU

This unit uses the following types of display for most operations. SETUP/DISC/CD menu, Title List, and DISPLAY, which allows you to change the playing status of disc during play.

SETUP/DISC/CD menu

Press **SETUP** button to display the setup main menu, then choose either of SETUP/DISC/CD by pressing ◀▶ buttons. Then, press **ENTER** button to display each menu. This provides entries to all main functions of the unit.

"SETUP" is available only in the Stop mode.



1. Playback:

To set up the unit to play discs to your preference.

2. Recording:

To set up the unit to record to discs or VHS tape.

3. Display:

To set up the OSD screen.

4. Select Video:

To choose a line input to record to DVD discs or VHS tapes from other video components.

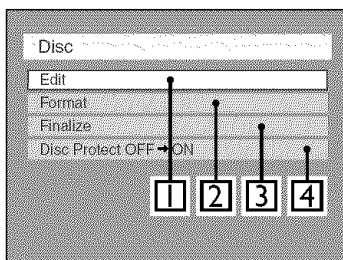
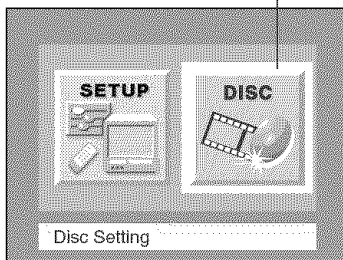
5. Clock:

To set up the clock.

6. Channel:

To preset the TV channels.

"DISC" can be only selected when a DVD-R/RW disc is inserted into the unit. When a prerecorded DVD Video disc, a new DVD-R disc or the finalized DVD-R disc is inserted into the unit, you cannot select "DISC".



1. Edit:

Turns on a title list, (when a disc with VR mode is inserted, 'Original' or 'PlayList' is available), which shows the recorded titles on the disc.

2. Format:

Allows you to erase all of the recorded content on the disc. The disc will be completely blank.

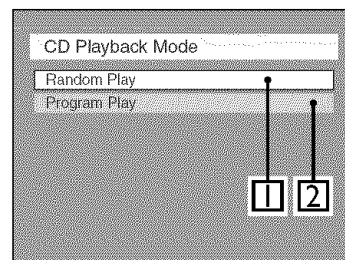
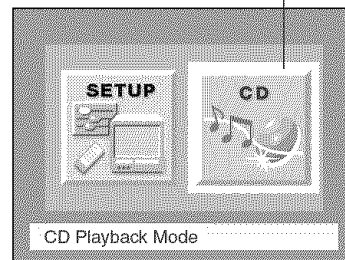
3. Finalize:

Allows you to finalize a disc recorded titles.

4. Disc Protect (VR mode only) :

Allows you to protect a disc from accidental editing or recording.

"CD" is available only when an Audio CD disc or a CD-R/RW disc with MP3 files is inserted into the unit.



1. Random Play:

To set the random CD tracks playback.

2. Program Play (Audio CD only):

To activate the programmed playback of CD tracks.

▲ You will need to finalize the DVD discs before they can be played in other DVD players.

OPERATING DVD RECORDER

EASY DVD RECORDING

The following will help you to understand easily how to record to DVD discs.

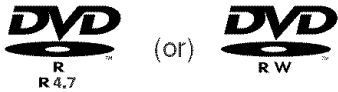
NOTE:

• Make sure that you have completed connections and batteries should be inserted in the remote control.

Step 1: Choose a disc type

There are several types of DVD disc recordable to choose from. Choose an applicable type by "DVD disc types" on this page.

This unit can record on the following type of discs only.



* This unit cannot record on the following discs.

- DVD-R General Ver 2.0 / 8x
- DVD-RW Ver 1.2 / 2-4x CPRM compatible

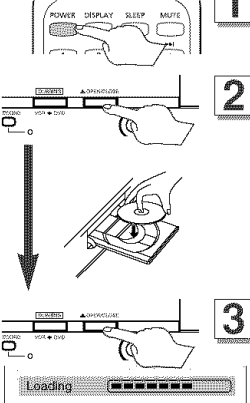
For example, when you want to record repeatedly on the same disc or when you want to edit the disc after recording, select the rewritable DVD-RW type disc.

When you want to save recordings without any alteration, a non-rewritable DVD-R can be your choice.

Step 2: Insert a blank disc

- 1 Turn on the unit
- 2 Open the disc tray
- 3 Close the disc tray

Remote Control

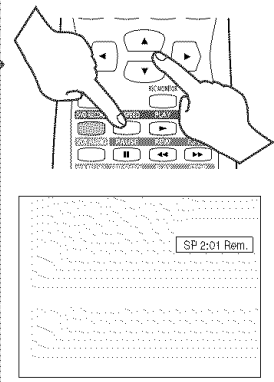


NOTE:

• This operation may take a few minutes to complete.

Step 3: Select the Recording speed

To select the recording speed, press **REC SPEED** button once, then change the recording speed using **▲/▼** buttons.



DVD disc types

• ★★★ : Most suitable. ★★ : Can be used. ★ : Some functions are limited. — : Cannot be used.

You want to	(DVD-RW VR)	(DVD-RW Video)	(DVD-R)
Record TV programs	★★★	★★★	★★
Reuse by deleting unwanted contents	★★★	★★	—
Edit recorded contents	★★★	★	★
Edit/Record from connected equipment	★★★	★★★	★★★
Copy discs for distribution	★★ ¹	★★★	★★★
Play on other DVD equipment	★★ ¹	★★★	★★★

Features	(DVD-RW VR)	(DVD-RW Video)	(DVD-R)
----------	-------------	----------------	---------

Recording			
Rewritable?	Yes	Yes	No
Can create chapters at fixed intervals (auto.)	Yes	Yes	Yes
Can create chapters wherever you like (manual)	Yes	No	No
Can record 16:9 size pictures	Yes	Yes	Yes
Can record Copy-Once programs	Yes	No	No

Editing			
Can perform basic edit functions	Yes	Yes	Yes
Can perform advanced edit functions (Playlist edit)	Yes	No	No

¹ DVD-RW (VR mode) can only be played on DVD equipment that is VR compatible.

NOTE:

For details of the above functions and implied restrictions, see the explanations inside the manual.

▲ Important Format the disc

Insert the disc in the unit.

Then, format the disc from SETUP menu. Video format (Video mode) or Video recording format (VR mode) will be available depending on the disc type inserted.

This is necessary to prepare the disc for recording. Details are on pages 48-49.

* When you format, the entire contents on that disc will be erased.

▲ Finalize the disc

After recording, you will need to finalize the DVD discs recorded in this unit before they can be played in other DVD players. See page 54.

Step 4: Select the desired channel

Step 5: Press DVD RECORD button

Step 6: Stop the Recording

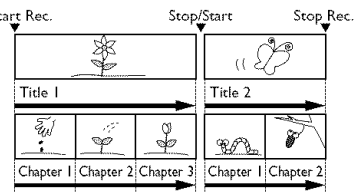
NOTE:
 • This operation may take a few minutes to complete.

Playing the recorded contents

You can select the title you want to play from a displayed menu and immediately start to play. Recorded contents are very accessible on a disc, the procedure is really simple as you choose a title or a chapter from the menu screen.

What are titles and chapters?

The contents of DVD disc are generally divided into titles. Titles may be further subdivided into chapters.



Editing the recorded disc

You will find editing discs very easy. This unit offers convenient edit functions, which are possible only with DVD-R/RW discs.

You can edit the following from a Title list.

- Naming titles
- Setting pictures for thumbnails (VR mode)
- Setting/clearing chapter markers
- Deleting title part or scene (VR mode)

Title Delete : This deletes an entire scene permanently from the disc.

Scene Delete : This allows a user to edit within a specific scene (ex. commercials).

Original and Playlist (VR mode)

You can edit the recordings in Playlist without changing the original recordings. Any Playlist does not take up much disc space.

What "Original" or "Playlist" is for?

Throughout this manual, you will find Original and Playlist to refer to the actual content and the edited version.

- **Original** content refers to what's actually recorded on the disc.
- **Playlist** content refers to the edited version of the disc; how the Original content is to be played.

▲ Finalize the Disc

- This will allow a disc that is recorded on our unit to be played back on a different DVD player without finalization it will not be playable on another player.
- After finalizing a disc if the recording was in video mode, you can not edit any information that is on that disc.
- If you have recorded in VR mode on DVD-RW disc then editing is still permitted after finalizing. See page 54.

EASYPIC DVD RECORDING



EASY DVD RECORDING

OPERATING DVD RECORDER

RECORDING

About DVD Recording

This unit can record to DVD-R and DVD-RW discs. When recording, you will need to select a recording format between Video mode and VR mode depending on the disc format. The disc format for DVD-R is always "Video format," so a recording format will be "Video mode". On the other hand, when recording to DVD-RW, a recording format will be "Video mode" or "VR mode" because a disc format is available between "Video Recording format" and "Video format" for DVD-RW.

Logo	Attributes
	12cm, single-sided, single layer disc Approx. max. recording time (SEP mode): 600 minutes (4.7GB)
	12cm, single-sided, single layer disc Approx. max. recording time (SEP mode): 600 minutes (4.7GB)

- * This unit cannot record on the following discs.
- DVD-R General ver 2.0/8x
- DVD-RW ver 1.2/2-4xCPRM compatible.

▲ Important

Video mode / VR (Video Recording) mode

Video Format

Select the Video Recording Mode to record discs that can be played back on most standard DVD players. Video Recording Mode creates discs compatible with most DVD players, but there is no capability to edit the recordings. DVD-R discs can only be formatted in the Video mode, DVD-RW discs can be formatted in the Video mode or the VR mode.



VR Format

Select the VR Recording Mode to record discs that can be edited, but can be played back only on DVD recorders and players that support the VR mode with DVD-RW discs. DVD-R discs cannot be formatted in the VR mode, only DVD-RW discs can be formatted in the VR mode.

DVD players with  can play DVD-RW recorded in VR mode.

NOTE:

- This unit cannot record CD-R or CD-RW discs.
- DVD-R/RW and CD-R/RW discs recorded on a personal computer or a DVD or CD recorder may not be played in this unit if the disc is damaged or dirty or if there is dirt or condensation on the units lens.
- Even if you record a disc using a personal computer in a compatible format, you may not play it in this unit due to the application software used to create the disc. (Check with the software distributor for more detailed information.)
- Discs recorded in Video mode on this unit cannot be recorded additionally using other DVD recorders.

Disc type	Disc format	Functions
	Video mode DVD-RW (Video)	Playing, limited recording, limited editing
DVD-RW	VR mode DVD-RW (VR)	Playing, recording, Original/Playlist editing
	Video mode DVD-R	Playing, limited recording, limited editing
DVD-R		

Recording Speed

You can select a recording speed among 6 options. The recording time depends on the recording speed you select as follows:

Recording speed	Recording time *	Video/Sound Quality
XP (1H)	60 min	☆☆☆☆☆☆ (Highest)
SP (2H)	120 min	☆☆☆☆☆
LP (4H)	240 min	☆☆☆☆
EP (6H)	360 min	☆☆☆
SLP (8H)	480 min	☆☆
SEP (10H)	600 min	☆ (Lowest)

* This table is designed for a new single-sided 12cm disc as the standard. The recording time shown above may differ from actual recording time.

* The audio and video quality is poorer as the recording time becomes longer.

Restrictions




You cannot record copy-protected video using this unit. Copy-protected video includes DVD-Video discs and some satellite broadcasts. If copy-protected material is encountered during a recording, the unit will pause or stop automatically and an error message will be displayed on-screen. "Copy-once only" video can be recorded only using a DVD-RW disc in VR mode with CPRM (see below). When recording a TV broadcast or through an external input, copy control information can be displayed on screen.

What is "CPRM"?

CPRM is a copy protection system with scramble system regarding the recording of "copy once" broadcast programs. CPRM stands for Content Protection for Recordable Media. This unit is CPRM compatible, which means that you can record copy-once broadcast programs, but you cannot make a copy of those recordings. CPRM recordings can only be made on DVD-RW discs formatted in VR mode, and CPRM recordings can only be played on players that are specifically compatible with CPRM.

Copy Control

Some satellite broadcasts include copy-protected contents. Refer to the following condition on copy control.

Disc type / format	Copy-free	Copy-once	Copy-prohibited
 VR ver.1.1 ver.1.1 CPRM compatible	☆	—	—
 Video ver.1.1 ver.1.1 CPRM compatible	☆	—	—
 DVD-R ver.2.0	☆	—	—

☆ Recordable
 — Not Recordable

Formatting

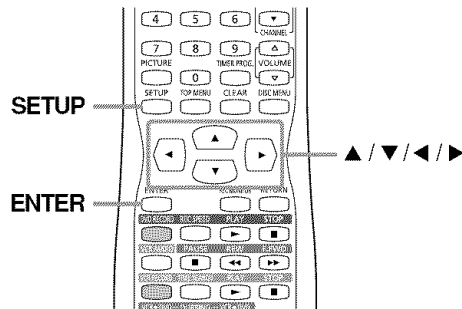
Format Setting

DVD-RW (Video) DVD-RW (VR)

When inserting a blank disc, the unit starts to initialize the blank disc. After that, you can record to the disc in the recording format selected in SETUP menu. You can set a specified time for chapter marks.

NOTE:

- The recording format setting is available only for DVD-RW discs. You cannot change the recording format on a DVD-R disc. DVD-R discs will always be in Video mode.
- You cannot mix two formats on one DVD-RW disc. When you load a disc once recorded before, the recording format cannot be changed even if you change it in SETUP menu.
- When inserting a blank DVD+R or DVD+RW disc, the error message ("Disc Error") will appear. This unit is not compatible with a DVD+R/RW disc.
- PLAYLIST will be created automatically when recording on DVD-RW in VR mode.



1 Press **SETUP** button to display SETUP/DISC menu.

SETUP/DISC menu will appear.

2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.

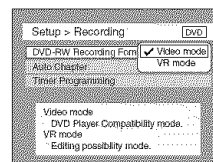
SETUP menu will appear.

3 Select "Recording" using ▲/▼/◀▶ buttons, then press **ENTER** button.

Recording menu will appear.

4 Select "DVD-RW Recording Format" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



Video mode has been selected as the default.

Continue on next page.

OPERATING DVD RECORDER

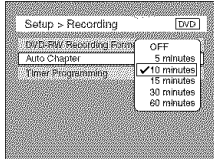
RECORDING

- 5 Select "Video mode" or "VR mode" using ▲/▼ buttons, then press **ENTER** button.

The recording mode will be set.

- 6 Select "Auto Chapter" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



"10 minutes" has been selected as the default.

- 7 Select a desired time option using ▲/▼ buttons, then press **ENTER** button.

Chapter marks will be put as you specified.

- The time for chapter marks is not accurate in Video mode.

- 8 Press **SETUP** button to exit SETUP menu.

▲NOTE: 2 formats on same disc

You cannot mix both recording formats on a single DVD disc.

▲NOTE: Finalize

You must "Finalize" all recorded discs before they can be played on other DVD players. Without finalization, Video mode discs cannot be played back on other DVD players, and VR mode discs cannot be played back on other VR compatible players. See page 54.

Reformatting

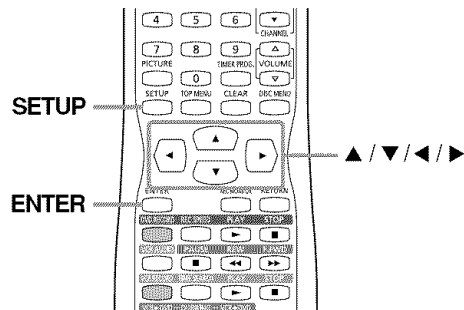
DVD-RW (Video) DVD-RW (VR)

If you are using a DVD-RW disc, by default it will be Video mode.

You can change this to VR mode from SETUP menu.

▲Caution: Erasing - Reformatting

- Reformatting will erase the contents of the disc. Once erased, the material cannot be retrieved.



- 1 Press **SETUP** button to display SETUP/DISC menu.

SETUP/DISC menu will appear.

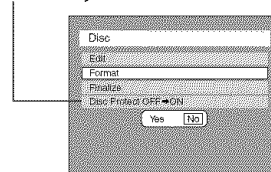
- 2 Select "DISC" using ◀▶ buttons, then press **ENTER** button.

DISC menu will appear.

- 3 Select "Format" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.

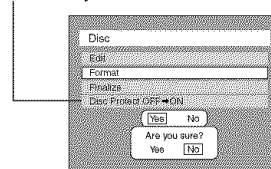
* VR mode only



- 4 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

Option window will appear.

* VR mode only

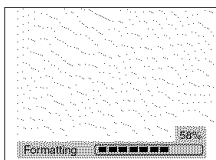


5 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

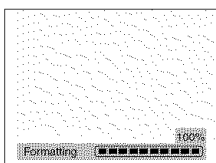
Formatting will start.

NOTE:

• Select "No" to cancel formatting.



6 Formatting is complete. 100% will be indicated.



NOTE:

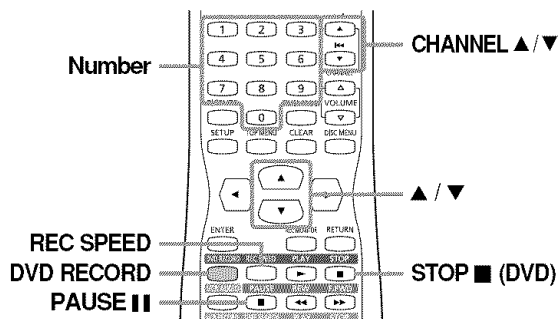
• This operation may take a few minutes to complete.

Basic Recording

Recording TV Programs

DVD-R DVD-RW (Video) DVD-RW (VR)

Follow the steps below to record TV programs.

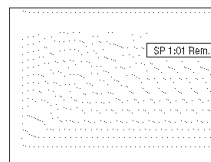


1 Turn on the unit and load a recordable disc.

NOTE:

• This operation may take a few minutes to complete.

2 Press **REC SPEED** button, then change the recording speed using ▲/▼ buttons.



Refer to "Recording speed" on page 48.

3 Make sure that the recording format is set to the desired mode.

Refer to "Formatting" on pages 49-50.

When a DVD-RW disc is loaded:

Choose Video mode or VR mode from **SETUP** menu. "Video mode" has been selected as the default. Refer to "Format Setting" on pages 49-50.

When a DVD-R disc is loaded:

DVD-R discs will always be in Video mode.

▲NOTE:

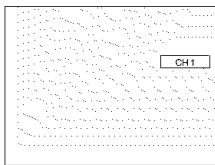
- If the clock has not been set, the space for a date and time of title names in the original or playlist will be blank.
- You cannot mix two formats on one DVD-RW disc. When you load a disc once recorded before, the recording format cannot be changed even if you change it in **SETUP** menu.

Continue on next page.

OPERATING DVD RECORDER

RECORDING

- 4 Select a desired channel to record using **CHANNEL** ▲/▼ buttons or **Number** buttons.

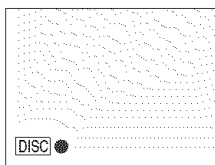


- 5 Press **DVD RECORD** button to start recording.

NOTE:

- Recording starts immediately and continues until the disc is full or you stop recording.

DISC ● mark will be displayed for 5 seconds.



To pause the recording, press **PAUSE** ||| button. Press **DVD RECORD** button to restart the recording.

▲NOTE:

- You cannot change the recording speed during the REC pause mode.
- You can change a channel during the REC pause mode.

- 6 Press **STOP** ■ (DVD) button to stop recording.

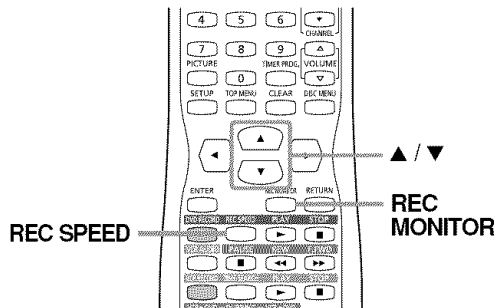
NOTE:

- This operation may take a few minutes to complete.

Checking the recording picture quality

DVD-R DVD-RW (Video) DVD-RW (VR)

You can confirm the recording speed you have selected before recording to a DVD disc.

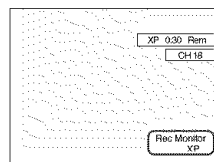


- 1 While the unit is in STOP or REC with a recordable DVD disc inserted, press **REC MONITOR** button.

- 2 The TV program will be shown on the screen with the recording speed you have selected. Please confirm this is the speed you wish to record.

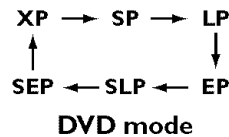
NOTE:

- The recording picture can be confirmed with the Rec monitor function. (See "Recording Speed" on page 48.)



- 3 To change the recording speed, press **REC SPEED** button, then use ▲/▼ buttons.

The recording speed will change as you press the button as shown.



NOTE:

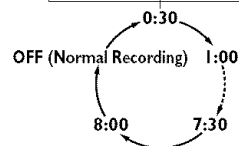
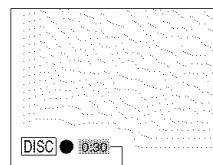
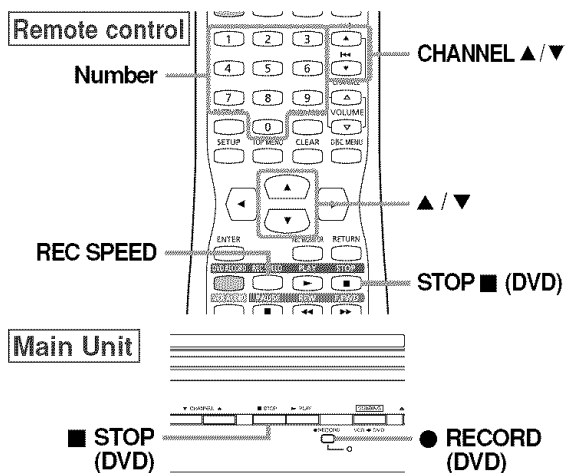
- You cannot change the recording speed during recording.

- 4 Press **REC MONITOR** button again to exit.

One-Touch Timer Recording

DVD-R **DVD-RW (Video)** **DVD-RW (VR)**

This is a simple way to set the recording time in blocks of 30 minutes. Check that the disc you are recording onto has enough space for the time you set.



When the unit reaches the specified time, it will turn off automatically.

NOTE: Automatic Turn Off

- The unit will turn off automatically under the following conditions:
 - 1) No space remained on the disc.
 - 2) When a power failure occurs.
- If One-Touch Timer Recording finishes in DVD during playback or in REC mode in VCR, the DVD will be in STOP mode and the VCR keeps the current mode.

To cancel the one-touch timer recording within the specified time, press **STOP** (DVD) button.

NOTE:

- This operation may take a few minutes to complete.

- 1 Turn on the unit and load a recordable disc.

NOTE:

- This operation may take a few minutes to complete.

- 2 Press **REC SPEED** button, then change the recording speed using **▲/▼** buttons.

Refer to "Recording speed" on page 48.

- 3 Make sure that the recording format is set to the desired mode.

Refer to "Format Setting" on pages 49-50.

When a DVD-RW rewritable disc is loaded:

Choose Video mode or VR mode from SETUP menu.

"Video mode" has been selected as the default.

Refer to "Format Setting" on pages 49-50.

When a DVD-R disc is loaded:

DVD-R discs will always be in Video mode.

- 4 Select a desired channel to record using **CHANNEL ▲/▼** buttons or **Number** buttons.

- 5 Press **RECORD (DVD)** button on the main unit repeatedly until a desired recording time (30 minutes to 8 hours) appears on the TV screen.

Recording will start.

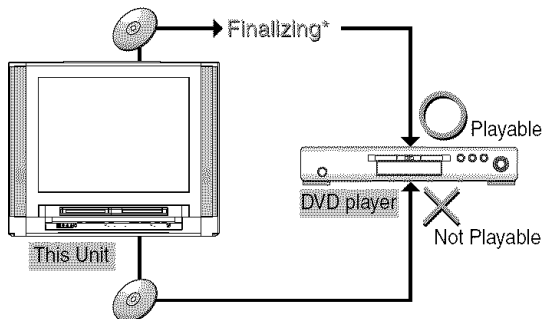
OPERATING DVD RECORDER

RECORDING

▲ Finalizing Discs

DVD-R DVD-RW (Video) DVD-RW (VR)

You must "Finalize" all recorded discs before they can be played on other DVD players. Without finalization, Video mode discs cannot be played back on other DVD players, and VR mode discs cannot be played back on other VR compatible players.



*You cannot finalize discs in other DVD recorders.

Finalizing may take several minutes up to an hour. (A disc recorded in Video mode can take up to 15 minutes. A disc recorded in VR mode can take up to 60 minutes.)

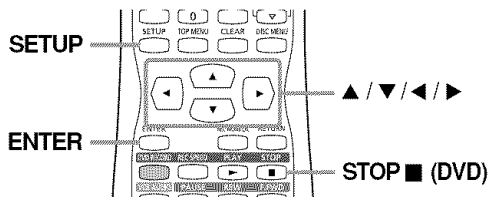
A shorter recording period on the disc will require a longer time period for finalization. Do not unplug the power cord during finalization.

After finalizing:

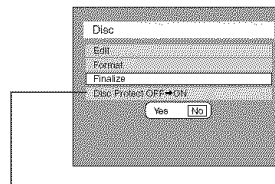
- Once DVD-R/RW (Video mode) is finalized, you cannot record additionally or edit.
- Even if DVD-RW (VR mode) is finalized, you can record additionally to or edit.
- When DVD-R/RW (Video mode) is finalized, title menu will be created automatically.

To play in other DVD players, finalize discs recorded on this unit with the following condition.

Disc type	Mode
DVD-R ver.2.0	Video mode
DVD-RW ver.1.1 ver.1.1 CPRM compatible	Video mode VR mode

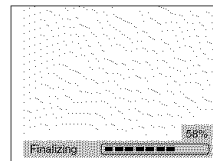


- 1 Press **SETUP** button to display SETUP/DISC menu. SETUP/DISC menu will appear.
- 2 Select "DISC" using ◀▶ buttons, then press **ENTER** button. DISC menu will appear.
- 3 Select "Finalize" using ▲/▼ buttons, then press **ENTER** button. Option window will appear.



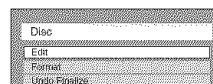
* VR mode only

- 4 Select "Yes" using ◀▶ buttons, then press **ENTER** button. Finalizing will start.



NOTE: Finalizing

- This operation may take a few minutes to complete.
- Finalizing discs in Video mode automatically create title menus.
- Once you have finalized a disc recorded in Video mode, you cannot edit or record any contents on that disc. Discs recorded in VR mode can still be recorded and edited on this unit even after finalized.
- To cancel finalizing, press **STOP** (DVD) button. Select "Yes" using ◀▶ buttons, then press **ENTER** button.
- When you insert a DVD-RW disc finalized with this unit, "Undo Finalize" will appear instead of "Finalize".



To release the finalizing for the disc, select "Undo Finalize" at step [3].

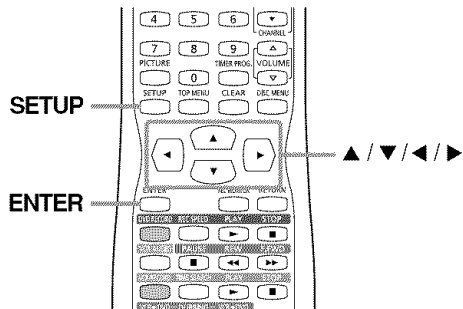
- If Ⓞ appear when pressing **STOP** (DVD) button, you cannot cancel finalizing because the finalizing has been in certain progress. When selecting "No", press **ENTER** or **RETURN** button, finalizing will be continued.

▲ You cannot cancel finalizing the DVD-R disc once it starts.

Protecting Discs

DVD-RW (VR)

To prevent accidental recording, editing or erasing the titles, you can protect them.



1 Press **SETUP** button to display SETUP/DISC menu.

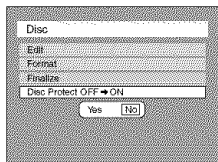
SETUP/DISC menu will appear.

2 Select "DISC" using ◀▶ buttons, then press **ENTER** button.

DISC menu will appear.

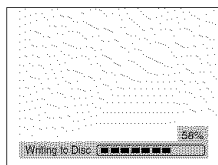
3 Select "Disc Protect OFF → ON" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



4 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

A disc will be protected.

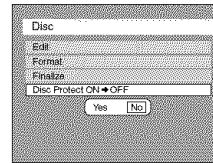


NOTE:

- This operation may take a few minutes to complete.
- The Disc Protect setting is available only when a disc with VR mode is inserted.
- You can only select Disc Protect Menu when a protected disc is inserted.

TO CANCEL THE DISC PROTECT :

- When you insert a disc protected with this unit, "Disc Protect ON → OFF" will appear instead of "OFF → ON".



To release the protect for the disc, select "Disc Protect ON → OFF" at step [3], then select "Yes".

COPYING DVD RECORD

RECORDING

OPERATING DVD RECORDER

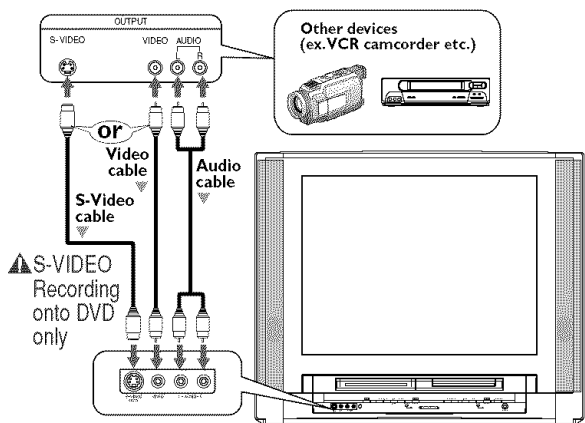
RECORDING

Connecting to External Video Products

Connections

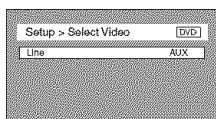
Connect the external video products properly to the unit by using input jacks on the front of this unit.

Use S-Video or video cable, and an audio cable for this connection.



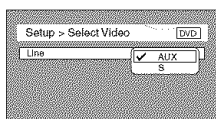
▲ To record onto a VHS tape, use the VIDEO input.

- 1 Press **SETUP** button to display SETUP/DISC menu.
- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.
- 3 Select "Select Video" using ▲/▼/◀▶ buttons, then press **ENTER** button.



Press **ENTER** button.
Option window will appear.

- 4 Select the input jack type to connect using ▲/▼ buttons, then press **ENTER** button.
If you want to use S-VIDEO INPUT, select "S".
If you want to use VIDEO INPUT (Composite), select "AUX".

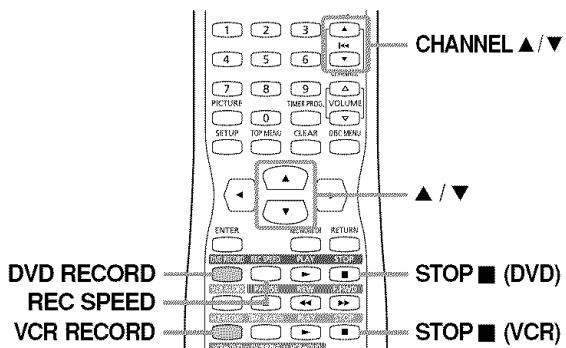


- 5 Press **SETUP** button to exit.

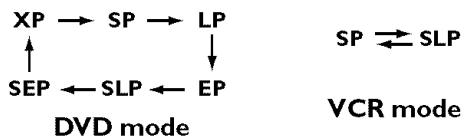
Recording from External Video Products

DVD-R DVD-RW (Video) DVD-RW (VR) VCR

Before recording from an external video product, see the instructions for the connection in the previous section, "Connections".



- 1 Turn the unit on.
- 2 When you want to record onto a DVD:
Press ▲ **OPEN/CLOSE** button on the main unit to open the disc tray, then place the disc to record properly. Then, press ▲ **OPEN/CLOSE** button again to close the disc tray.
NOTE:
• This operation may take a few minutes to complete.
- When you want to record to a tape:
Insert the tape with a safety tab into the cassette compartment.
- 3 Select the external input mode ("AUX" or "S") using **CHANNEL ▲/▼** buttons.
- 4 Press **REC SPEED** button (For VCR, press **REC SPEED** button twice), then change the recording speed using ▲/▼ buttons until your desired speed is displayed. Refer to "Recording Speed" on page 48 for DVD or page 28 for VCR.



- 5 Press **DVD RECORD** button or **VCR RECORD** button to start recording.
- 6 Press **PLAY** button on the external video product.

- 7 For disc:
Press **STOP ■ (DVD)** button to stop recording.

NOTE:
• This operation may take a few minutes to complete.

For tape:
Press **STOP ■ (VCR)** button to stop recording.

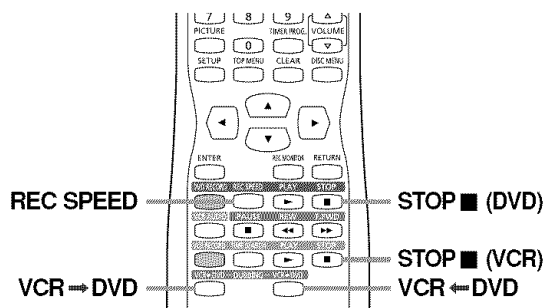
DUBBING

DVD-R DVD-RW (Video) DVD-RW (VR) VCR

You can copy a DVD disc to a videotape or copy a videotape to a DVD disc. This function will be possible only if the DVD disc or the tape is not copy protected. Before starting this function, prepare for the recording on the DVD-R/RW disc or the videotape. Refer to pages 48-55, 28-30.

▲ NOTE: Load Recording Media

- Insert a DVD disc or videotape with the available recording space.



VCR to DVD

The DVD recording speed and format should be selected first. Refer to "Recording" on page 48 and "Formatting" on pages 49-50.

- 1 Press **REC SPEED** button first, and select a recording speed using **▲/▼** buttons.
- 2 Press **VCR → DVD** button on the remote control or on the main unit.
VCR to DVD duplication will start.
- 3 Press **STOP ■ (DVD)** or **STOP ■ (VCR)** button on the remote control or on the main unit to stop the recording.

NOTE:

- After starting VCR to DVD duplication, the picture may be distorted because of the auto tracking function. This is not a malfunction. Be advised to playback the tape until the picture is stabilized, then set the starting point you wish to start recording, and start VCR to DVD duplication.

DVD to VCR

The tape's record tab should be intact.
The videotape should have enough available space to record the DVD disc.

- 1 Press **REC SPEED** button twice, and select a recording speed using **▲/▼** buttons.
- 2 Press **VCR ← DVD** button on the remote control or on the main unit.
DVD to VCR duplication will start.
- 3 Press **STOP ■ (DVD)** or **STOP ■ (VCR)** button on the remote control or on the main unit to stop the recording.

NOTE: DVD Dubbing

- Duplicating operation from DVD to VCR is only available when DVD stops or during DVD playing, and when VCR stops.
- You cannot make a dub from a DVD disc protected by copyright, such as a prerecorded DVD.

OPERATING DVD RECORDER

TIMER RECORDING

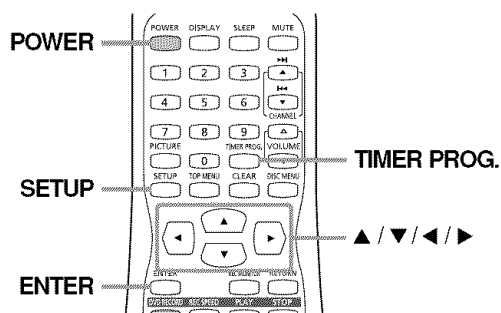
Timer Recording

DVD-R DVD-RW (Video) DVD-RW (VR) VCR

You can program up to 7 programs 1 year in advance. Daily or weekly program recordings are also available.

NOTE: Time must be set

- Be sure to set the clock before making a timer programming.
- Insert a recordable disc or a tape with a safety tab.



- 1 Press **SETUP** button to display SETUP/DISC menu.

SETUP/DISC menu will appear.

- 2 Select "SETUP" using ◀▶ buttons, then press **ENTER** button.

SETUP menu will appear.

- 3 Select "Recording" using ▲/▼/◀▶ buttons, then press **ENTER** button.

Recording menu will appear.

- 4 Select "Timer Programming" using ▲/▼ buttons, then press **ENTER** button.

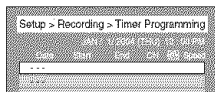
Timer Programming list will appear.

NOTE: Timer Program Menu

- Timer Programming menu can also be selected by pressing **TIMER PROG.** button. In this case, continue with step [5].

• If you have not set the clock yet:

A clock setting window will appear after step [4]. Before making a timer programming, press **ENTER** button then finish setting the clock, referring to the step [5] in "Manual Clock Setting" on page 19.



- 5 Select the blank program using ▲/▼ buttons, then press **ENTER** button.

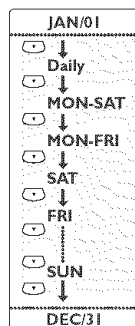
- 6 Enter the date using ▲/▼ buttons, then press ▶ button.



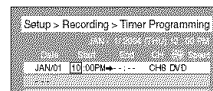
e.g. January 1st

NOTE:

- When pressing ▼ button at the current date, timer recording mode will change as follows:

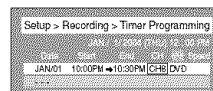


- 7 Enter the time to start and to end using ▲/▼ buttons, then press ▶ button.

**NOTE:**

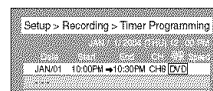
- Press ◀ or ▶ buttons to move the cursor to the left and the right in the timer programming menu.

- 8 Select the channel number to record using ▲/▼ buttons, then press ▶ button.



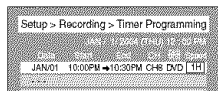
- To record from external input, select "AUX".

- 9 Select a recording media using ▲/▼ buttons, then press ▶ button.



- To record on to a tape, select VCR.
- To record on to a disc, select DVD.

10 Select a recording speed using ▲/▼ buttons.



Refer to "Recording speed" on page 48 for DVD or page 28 for VCR.

- If you set Recording speed to "Auto" at step [10], this unit will automatically adjust the recording speed so that the program will fit into one disc.
(You can select "Auto" in the first program only.)

11 Press **ENTER** button when all information required is entered.

Your program setting will be entered.

- To set another program, repeat steps [5] to [11].
- To exit, press **SETUP** button.

12 Press **POWER** button to turn off.

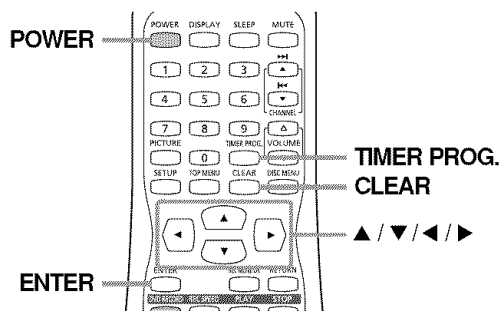
▲Important

When you set the timer program in either DVD mode or VCR mode, RECORD indicator (DVD) will illuminate on the front of the TV. See item No.19 on page 7.

NOTE:

- If power is not turned off and you continue watching TV, "TIMER REC STANDBY" starts flashing on the TV screen 2 minutes before the programmed start time. In this case, press **POWER** button to turn off to activate the timer recording.
- You may turn on the unit once the timer recording has started.

Checking, canceling, or correcting the timer programming information



1 Press **POWER** button.

2 Press **TIMER PROG.** button. Timer Programming list will appear.



3 Check the information.

4 To clear the timer programming, select your desired program using ▲/▼ buttons, then press **CLEAR** button.

To correct the timer programming, select your desired program using ▲/▼ buttons, then press **ENTER** button.

Next, correct the timer programming using ▲/▼/◀/▶ buttons.

Finally, press **ENTER** button again.

5 Press **TIMER PROG.** button to exit.

6 Press **POWER** button to return to the timer standby mode.

NOTE:

- Press **TIMER PROG.** button to check the timer programming in process.
When the timer recording is in process, that program will be highlighted in red. In this case, you cannot select any other program.

To stop the timer recording in process

Press **POWER** button first to turn on the unit. Then, on the front panel of the unit, press **STOP** ■ (DVD) button to stop the recording or ■ **STOP/▲ EJECT** to stop the tape recording. **STOP** ■ button on the remote control does not work for timer recording.

OPERATING DVD RECORDER

TIMER RECORDING

Suggestions for Timer Recording

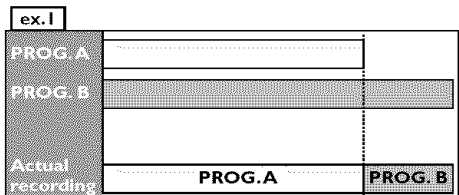
- If there is a power failure or this unit has been unplugged for more than 3 seconds, the clock setting and all timer settings will be lost.
- If a disc is not on the tray, timer recording cannot be performed. Please insert a recordable disc.
- If a tape with a record tab is not in the cassette compartment, timer recording cannot be performed. Please insert a recordable tape. See "Accidental erasure prevention" on page 28.
- The main unit automatically ejects a tape without a record tab inserted in the compartment when you turn off the power and move to timer standby mode.
- When all the timer recording is completed, the RECORD indicator disappears. To play the recorded disc (or the tape), press **POWER** button first and then press **PLAY ► (DVD)** or **PLAY ► (VCR)**. To eject the recorded disc (or the tape), press **▲ OPEN/CLOSE** (or **■ STOP/▲ EJECT**) button.
- The timer recording is not performed in DVD and VCR at the same time. If you set two programs with the same channel and time both in DVD and VCR, the program that has priority will be recorded.
- During timer recording or timer standby (RECORD indicator is on the front display), any operations on the unit will not be available. To make these operations available, cancel the timer recording or timer standby first (RECORD indicator disappears).
- To cancel the timer standby mode, press **POWER** button.
- When the Start and the End time are the same, the length of the recording will be set for 24 hours. When the disc reaches at the end during the recording, the unit turns itself off.
- When the programmed Start and End time are earlier than the current time, the recording will be set on the same date in the next year.
- If your programmed Start time for DVD recording is within 2 minutes from the current time, the power will turn on for recording standby right after you turn the power off. For a videotape recording, the power will turn on shortly before the Start time.
- If a videotape ends during timer recording, the unit will stop, eject the videotape, and turn itself off.
- When two or more programmings are overlapped, "Overlap" will be displayed.

The priority of overlapped settings

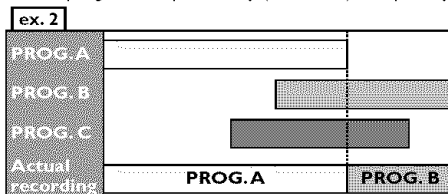
This unit records the programs according to priority if the timer programs are overlapped. The timer program set first is given priority. A timer recording of lower priority will be canceled, begin from the middle or stopped at the end. Check the overlapped timer programs and change the priority if necessary.

■ A programming set previously has priority

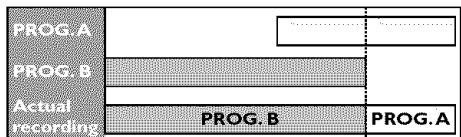
- When the starting time is the same:**
A program set previously (PROG.A) has priority.



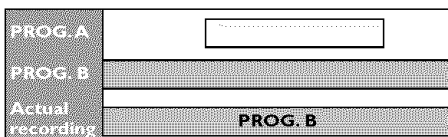
- When some programming have been made at the end time of the programming currently being recorded:**
A program set previously (PROG. B) has priority.



- When the recording time is partially overlapped:**
PROG. A will start after PROG. B is complete to be recorded.



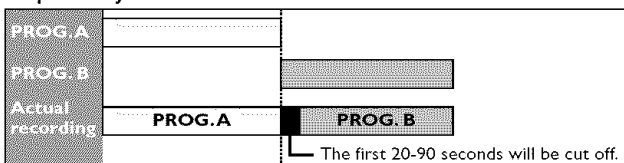
- When the recording time is entirely overlapped:**
PROG. A will not be recorded.



Note for DVD timer recording

- When the recording time of two programs are overlapped, or the End time of a program and the Start time of another is the same, the first 20-90 seconds of the subsequent program will be cut off.

Example:
When the end time of the programming currently being recorded and the starting time of the one to be recorded sequentially are same:

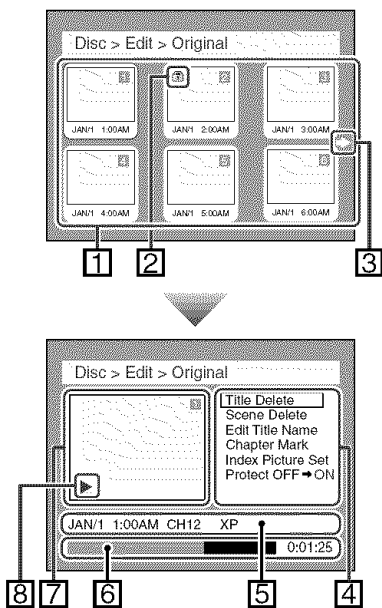


EDITING DISCS

About Disc Editing

Title List

Title list allows you to check the titles recorded on the disc easily. You can choose a title to edit from this screen and easily edit the titles as you prefer.



1. Titles recorded on the disc can be selected to edit by pressing **ENTER** button with the cursor on the title.
2. Protect icon, which appears when the title has been protected.
3. The arrow icon, which means the title list includes a next or a previous page. Press **▶** or **◀** button by following direction of the icon.
4. The menus for editing titles as you prefer. The available menu depends on the disc type and the format type.
5. The details of the title, which can be changed to the title name you will edit.
6. Time status bar of the title.
7. The selected title thumbnails from the title list.
8. Playback status of the current disc.

Editing in Video Mode

You can edit the following items for discs in Video mode. Be sure that once you edit titles, they will not remain as recorded originally.

- Deleting titles (Refer to page 62)
- Putting names on titles (Refer to page 63)
- Setting or clearing chapter markers (Refer to page 63)

NOTE: Finalized Discs

- Once a disc is finalized, editing the disc or recording to the disc will not be available. (Except DVD-RW discs in VR mode.)
- A playlist is not available with the DVD-R discs and DVD-RW discs in Video mode.

Editing in VR Mode

For discs in VR mode, you can edit from "Original" menu or "Playlist" menu, which is created from the original.

Editing original titles

The following operations can be used to edit the original titles.

- Deleting titles (Refer to page 64)
- Deleting parts of titles (Refer to page 65)
- Putting names on titles (Refer to page 65)
- Setting or clearing chapter markers (Refer to page 66)
- Setting pictures for thumbnails (Refer to page 66)
- Setting titles to protect (Refer to page 67)
- Releasing titles from protecting (Refer to page 67)

Editing playlists

You can create a playlist from original titles, so that you can edit as you prefer without losing original titles. The following operations you can edit with a playlist.

- Deleting titles (Refer to page 68)
- Deleting parts of titles (Refer to page 69)
- Putting names on titles (Refer to page 69)
- Setting or clearing chapter markers (Refer to page 70)
- Setting pictures for thumbnails (Refer to page 70)
- Adding titles to a playlist (Refer to page 71)
- Deleting a playlist (Refer to page 71)

NOTE: Original Titles

- Original titles once edited will not remain as recorded originally. When you want to leave the original as it is, edit the playlist as you prefer. (Refer to pages 68-71)

OPERATING DVD RECORDER

EDITING DISCS

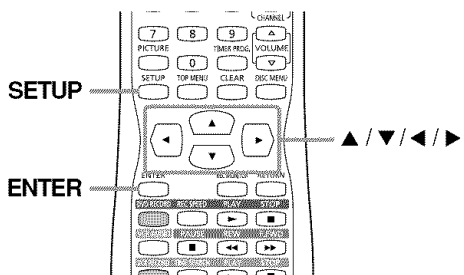
Editing Discs in Video Mode

Deleting Titles

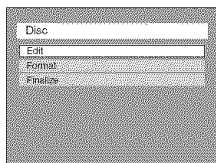
DVD-R DVD-RW (Video)

▲ Caution:

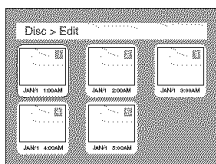
You can delete titles that you do not need anymore. The titles once deleted cannot be recovered to the disc. When the last title in the title list in Video mode is deleted, the disc space to record will be increased. For DVD-R disc, the disc space to record will not be changed.



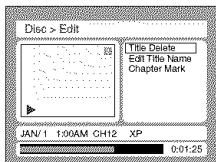
- 1 Press **SETUP** button. Select "DISC" using ◀▶ buttons, then press **ENTER** button. DISC menu will appear.



- 2 Select "Edit" using ▲/▼ buttons, then press **ENTER** button. Title list will appear.

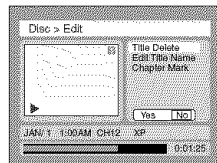


- 3 Select a desired title using ▲/▼/◀▶ buttons, then press **ENTER** button. Edit menu will appear.



- You cannot select "Chapter Mark" when a DVD-R disc is inserted into this unit.

- 4 Select "Title Delete" using ▲/▼ buttons, then press **ENTER** button. Option window will appear.



- 5 Select "Yes" using ◀▶ buttons, then press **ENTER** button. Title will be deleted.

NOTE:

• This operation may take a few minutes to complete.

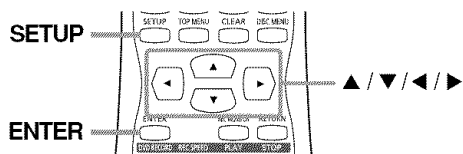
- 6 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Naming Titles

DVD-R DVD-RW (Video)

You can name the titles and change the names from this menu.

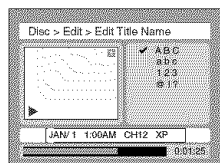
The title names will be displayed on a Title List.



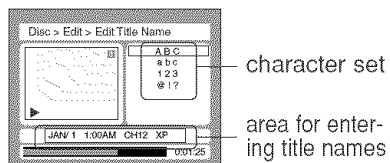
Follow the steps [1] to [3] on page 62 to display the Edit menu.

- 1 Select "Edit Title Name" using ▲/▼ buttons, then press **ENTER** button.

A window for entering a title name will appear.



- 2 To enter a title name, follow the steps shown in "Guide to edit title name" below.



When you finish entering a title name, press **ENTER** button.

[Guide to edit title name]

0	<space>	<space>	0	<space>
1	*	*	1	@!?
2	ABC	abc	2	*2
3	DEF	daf	3	*2
4	GHI	ghi	4	*2
5	JKL	jkl	5	*2
6	MNO	mno	6	*2
7	PQRS	pqrs	7	*2
8	TUV	tuv	8	*2
9	WXYZ	wxyz	9	*2

[Step 1]: Select a desired character set using ▲/▼ buttons, then press **ENTER** button.

[Step 2]: Press Number buttons following by the list.

- *1 Press (1) button, character set will be changed to the "@!?" mode automatically.
- *2 Press (2) to (9) buttons, character set will be changed to the previous input mode automatically.
- To delete letters, press **CLEAR** button repeatedly.
- To go on to the next entering area for letters, press (→) button.
- You can enter up to 30 letters.

- 3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

The name you entered will be activated for the title.

NOTE:

• This operation may take a few minutes to complete.

- 4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

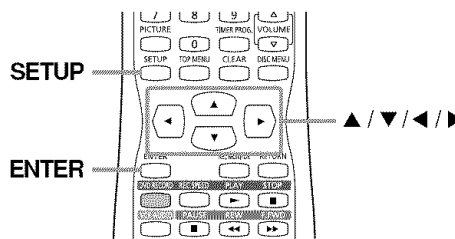
Setting Chapter Markers

DVD-RW (Video)

You can put chapter markers in each title. Once a chapter is marked, you can use it for the chapter search. You can set chapter markers at a specified time you selected for titles with more than 5 minutes.

NOTE:

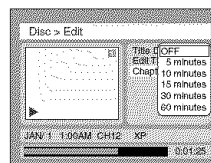
- You cannot select a time for putting markers beyond a length of a title.
- When recording at the recording speed other than XP or SEP, the length of chapters may be slightly longer or shorter than the one specified at the step [2].
- A chapter marker may be delayed according to the recording content.



Follow the steps [1] to [3] on page 62 to display the Edit menu.

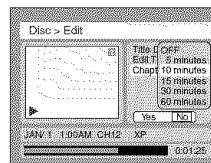
- 1 Select "Chapter Mark" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



- 2 Select a desired time using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



- 3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

Chapter marks will be put as you specified.

NOTE:

• This operation may take a few minutes to complete.

- 4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

OPERATING DVD RECORDER

EDITING DISCS

Editing DVD-RW Discs in VR Mode (Original)

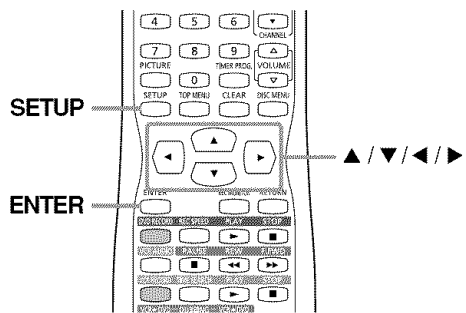
Deleting Titles

DVD-RW (VR)

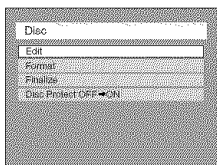
When a title is deleted from an original list in VR mode, the disc space to record will be increased.

⚠ Caution:

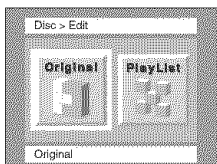
Be advised that the titles once deleted cannot be brought back to the disc.



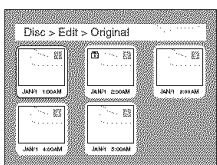
- 1 Press **SETUP** button. Select "DISC" using ◀▶ buttons, then press **ENTER** button.
DISC menu will appear.



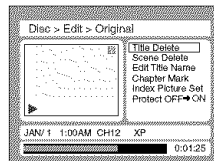
- 2 Select "Edit" using ▲/▼ buttons, then press **ENTER** button.
Original/PlayList menu will appear.



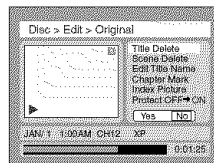
- 3 Select "Original" using ◀▶ buttons, then press **ENTER** button.
Original list will appear.



- 4 Select a desired title using ▲/▼/◀▶ buttons, then press **ENTER** button.
Original menu will appear.



- 5 Select "Title Delete" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



⚠ Caution:

Once erased, the material cannot be retrieved.

- 6 Select "Yes" using ◀▶ buttons, then press **ENTER** button.
Title will be deleted.

NOTE:

• This operation may take a few minutes to complete.

- 7 After writing to disc is completed, press **SETUP** button to exit DISC menu.

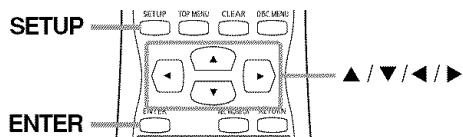
Deleting Parts of Titles

DVD-RW (VR)

You can delete part of a title so that the disc space to record will increase.

⚠ Caution:

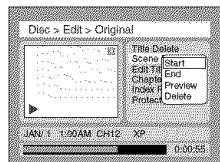
Be advised that the parts once deleted cannot be recovered.



Follow the steps [1] to [4] on page 64 to display the Original menu.

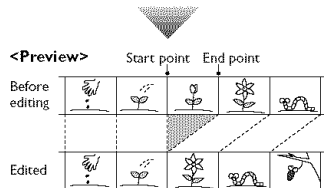
- 1 Select "Scene Delete" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



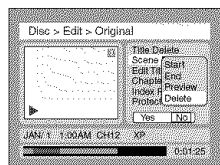
- 2 Press **ENTER** button to decide a start point, then press **ENTER** button to decide an end point.

A cursor will move to "Preview." You can check a preview.



- 3 Select "Delete" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.



- 4 Select "Yes" using ◀▶ buttons, then press **ENTER** button. Part of a title will be deleted.

NOTE:

- This operation may take a few minutes to complete.
- You cannot select "Scene Delete" when the number of chapter markers in the original or playlist is more than 900.

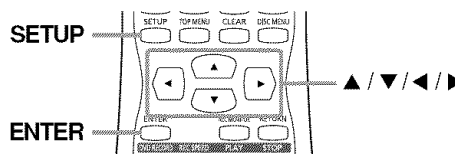
- 5 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Naming Titles

DVD-RW (VR)

You can name the titles and change the names from this menu.

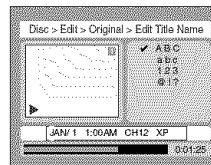
The title names will be displayed on a Title List.



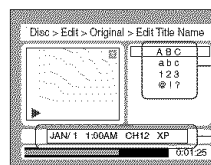
Follow the steps [1] to [4] on page 64 to display the Original menu.

- 1 Select "Edit Title Name" using ▲/▼ buttons, then press **ENTER** button.

A window for entering a title name will appear.



- 2 To enter a title name, follow the steps shown in "Guide to edit title name" below.



character set

area for entering title names

When you finish entering a title name, press **ENTER** button.

[Guide to edit title name]

Select	ABC	abc	123	@!?
0	<space>	<space>	0	<space>
1	*!	*!	!	!"#\$%&'()*+,-./:; @!?"
2	ABC	abc	2	*2
3	DEF	def	3	*2
4	GHI	ghi	4	*2
5	JKL	jkl	5	*2
6	MNO	mno	6	*2
7	PQRS	pqrs	7	*2
8	TUV	tuv	8	*2
9	WXYZ	wxyz	9	*2

[Step1]: Select a desired character set using ▲/▼ buttons, then press **ENTER** button.

[Step2]: Press Number buttons following by the list.

*1 Press (1) button, character set will be changed to the " @!?" mode automatically.

*2 Press (2) to (9) buttons, character set will be changed to the previous input mode automatically.

• To delete letters, press **CLEAR** button repeatedly.

• To go on to the next entering area for letters, press (▶) button.

• You can enter up to 30 letters.

- 3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

The name you entered will be activated for the title.

NOTE:

- This operation may take a few minutes to complete.

- 4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

OPERATING DVD RECORDER

EDITING DISCS

Setting Chapter Markers

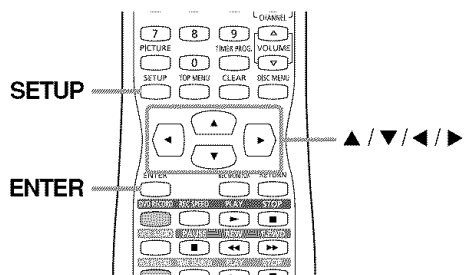
DVD-RW (VR)

You can put chapter markers in each title. Once a chapter is marked, you can use it for chapter search.

You can put a chapter marker anywhere you want.

NOTE:

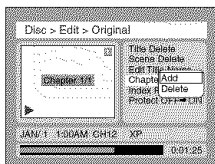
• When the number of chapter markers in the original list comes to 999 in total, you cannot add any more chapter markers.



Follow the steps [1] to [4] on page 64 to display the Original menu.

1 Select "Chapter Mark" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.

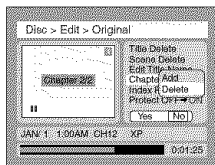
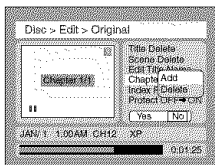


2 Select "Add" or "Delete" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.

<Add>:

<Delete>:



• You cannot delete the first chapter marker of each title.

3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

A chapter marker will be added or deleted.

NOTE:

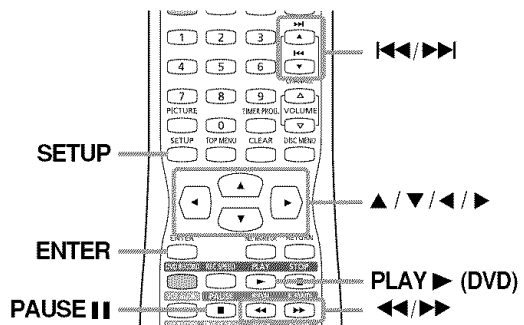
• These operations may take a few minutes to complete.

4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Setting Pictures for Thumbnails

DVD-RW (VR)

You can set a picture to each title for a thumbnail. It helps you to remember the contents of the title you are playing. The beginning picture has been selected as the default.

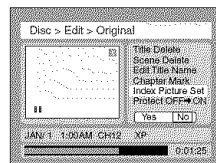


Follow the steps [1] to [4] on page 64 to display the Original menu.

1 Select "Index Picture Set" using ▲/▼ buttons.

Use ◀▶, ▶▶, ◀▶, ▶▶, **PLAY ▶ (DVD)**, and **PAUSE ||** buttons to decide the picture you want to select as a thumbnail. Then, press **ENTER** button.

Option window will appear.



2 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

A picture for thumbnail will be set.

NOTE:

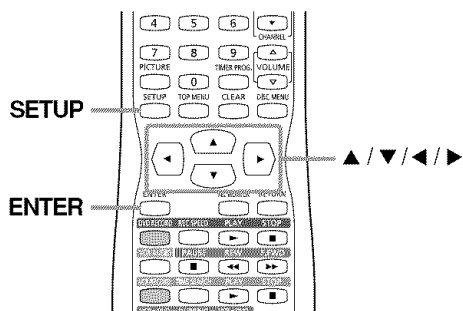
• This operation may take a few minutes to complete.
• If a selected picture for a thumbnail is deleted by deleting a part of a title, a default picture will be selected.

3 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Protecting Titles

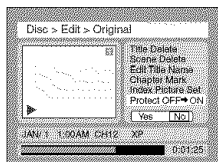
DVD-RW (VR)

To prevent accidental editing or erasing the titles, you can protect them from the original menu.

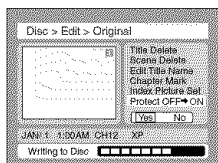


Follow the steps [1] to [4] on page 64 to display the Original menu.

- 1 Select "Protect OFF → ON" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



- 2 Select "Yes" using ◀▶ buttons, then press **ENTER** button.



NOTE:

• This operation may take a few minutes to complete.

- 3 After writing to disc is completed, press **SETUP** button to exit DISC menu.

To protect a whole disc (DVD-RW VR mode Only):

Select "Disc Protect" from Disc menu, then select "Yes". Refer to page 55.

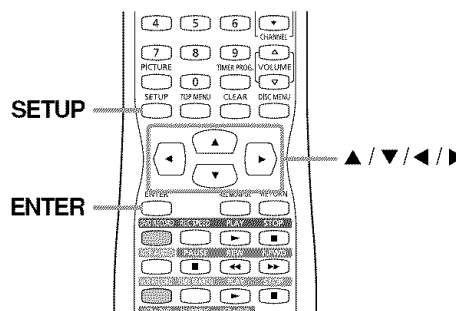
NOTE: Title Protection

• Once you protect the titles, other editing operations are not available until you release the title protection.

Releasing Title Protect

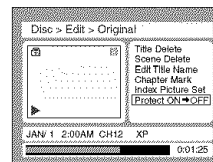
DVD-RW (VR)

You can release the title protection once you protected.



Follow the steps [1] to [3] on page 64 to display the Original list.

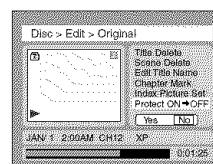
- 1 Select a desired title using ▲/▼/◀▶ buttons, then press **ENTER** button.
Original menu will appear.



"Protect ON → OFF" is selected.

- 2 Press **ENTER** button.

Option window will appear.



- 3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

NOTE:

• This operation may take a few minutes to complete.

- 4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

OPERATING DVD RECORDER

EDITING DISCS

OPERATING DVD RECORDER

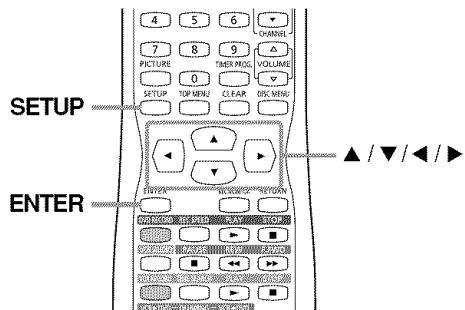
EDITING DISCS

Editing DVD-RW Discs in VR Mode (Playlist)

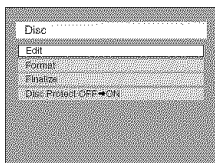
Deleting Titles

DVD-RW (VR)

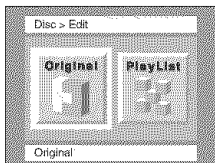
In VR mode, even when a title is deleted from a Playlist, the original title will remain in an Original list. The disc space to record will not increase.



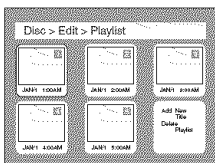
- 1 Press **SETUP** button. Select "DISC" using ◀▶ buttons, then press **ENTER** button.
DISC menu will appear.



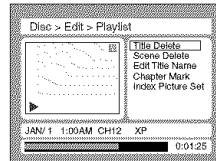
- 2 Select "Edit" using ▲/▼ buttons, then press **ENTER** button.
Original/PlayList menu will appear.



- 3 Select "PlayList" using ◀▶ buttons, then press **ENTER** button.
Playlist will appear.



- 4 Select a desired title using ▲/▼/◀▶ buttons, then press **ENTER** button.
Playlist menu will appear.



- 5 Select "Title Delete" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



- 6 Select "Yes" using ◀▶ buttons, then press **ENTER** button.
Title will be deleted.

NOTE:
• This operation may take a few minutes to complete.

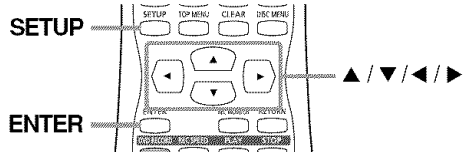
- 7 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Deleting Parts of Titles

DVD-RW (VR)

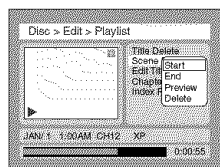
▲ Important

You can delete a specific part of a title. Even when a title is deleted from the Playlist, the original title will remain. The disc space to record will not be increased.

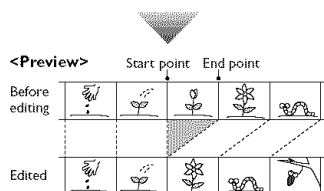


Follow the steps [1] to [4] on page 68 to display the Playlist menu.

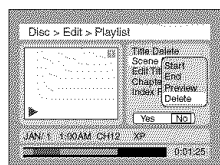
- 1 Select "Scene Delete" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



- 2 Press **ENTER** button to decide a start point, then press **ENTER** button to decide an end point.
A cursor will move to "Preview". You can check a preview.



- 3 Select "Delete" using ▲/▼ buttons, then press **ENTER** button.
Option window will appear.



- 4 Select "Yes" using ◀▶ buttons, then press **ENTER** button.
Part of a title will be deleted.

NOTE:

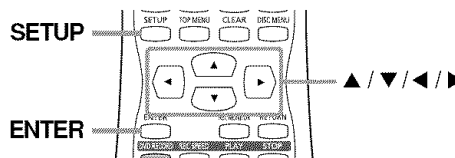
- This operation may take a few minutes to complete.
- You cannot select "Scene Delete" when the number of chapter markers in the original or playlist is more than 900.

- 5 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Naming Titles

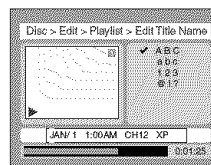
DVD-RW (VR)

You can name the titles and change the names from this menu. The title names will be displayed on a Title List.

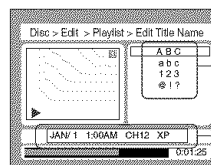


Follow the steps [1] to [4] on page 68 to display the Playlist menu.

- 1 Select "Edit Title Name" using ▲/▼ buttons, then press **ENTER** button.
A window for entering a title name will appear.



- 2 To enter a title name, follow the steps shown in "Guide to edit title name" below.



character set
area for entering title names

When you finish entering a title name, press **ENTER** button.

[Guide to edit title name]

Select	ABC	abc	123	@!?
0	<space>	<space>	0	<space>
1	=	=		! " # \$ % & ' () * + , - . / : ; < = > ? @ [] ^ _ { } ~
2	ABC	abc	2	*2
3	DEF	def	3	*2
4	GHI	ghi	4	*2
5	JKL	jkl	5	*2
6	MNO	mno	6	*2
7	PQRS	pqrs	7	*2
8	TUV	tuv	8	*2
9	WXYZ	wxyz	9	*2

[Step 1]: Select a desired character set using ▲/▼ buttons, then press **ENTER** button.

[Step 2]: Press Number buttons following by the list.

*1 Press () button, character set will be changed to the " @!?" mode automatically.

*2 Press () to () buttons, character set will be changed to the previous input mode automatically.

• To delete letters, press **CLEAR** button repeatedly.

• To go on to the next entering area for letters, press () button.

• You can enter up to 30 letters.

- 3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

The name you entered will be activated for the title.

NOTE:

- This operation may take a few minutes to complete.

- 4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

OPERATING DVD RECORDER

EDITING DISCS

Setting Chapter Markers

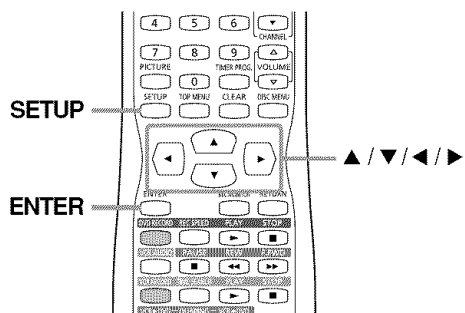
DVD-RW (VR)

You can put chapter markers in each title. Once a chapter is marked, you can use it for the chapter search.

You can put a chapter marker anywhere you want.

NOTE:

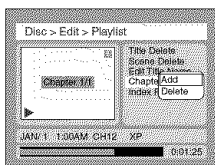
• When the number of chapter markers in the original list comes to 999 in total, you cannot add any more chapter markers.



Follow the steps [1] to [4] on page 68 to display the Playlist menu.

1 Select "Chapter Mark" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.

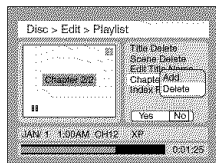
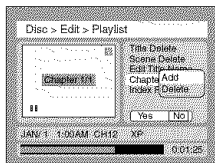


2 Select "Add" or "Delete" using ▲/▼ buttons, then press **ENTER** button.

Option window will appear.

<Add>:

<Delete>:



• You cannot delete the first chapter of each title.

3 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

A chapter marker will be added or deleted.

NOTE:

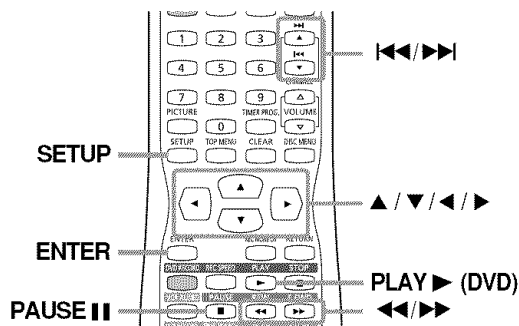
• These operations may take a few minutes to complete.

4 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Setting Pictures for Thumbnails

DVD-RW (VR)

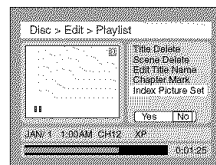
You can set a picture to each title for a thumbnail. It helps you to remember the contents of the title you are playing. The beginning picture has been selected as the default.



Follow the steps [1] to [4] on page 68 to display the Playlist menu.

1 Select "Index Picture Set" using ▲/▼ buttons. Use ◀▶, ◀▶▶, ▶▶▶, **PLAY ▶ (DVD)**, and **PAUSE II** buttons to decide the picture you want to select as a thumbnail. Then, press **ENTER** button.

Option window will appear and the video in the thumbnail will begin to play.



2 Select "Yes" using ◀▶ buttons, then press **ENTER** button.

A picture for thumbnail will be set.

NOTE:

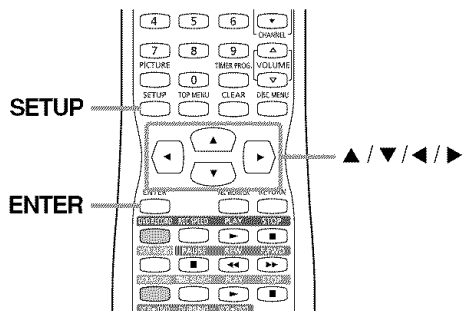
• This operation may take a few minutes to complete.
• If a selected picture for a thumbnail is deleted by deleting a part of a title, a default picture will be selected.

3 After writing to disc is completed, press **SETUP** button to exit DISC menu.

Adding Titles to Playlist

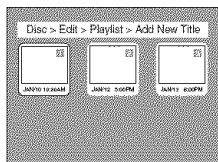
DVD-RW (VR)

You can add or delete a title in the playlist as you prefer. You can add titles to a Playlist up to 99.

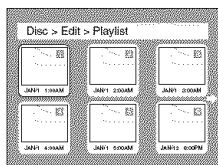
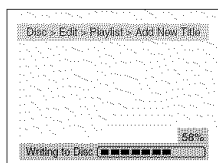


Follow the steps [1] to [3] on page 68 to display the Playlist.

- 1 Select "Add New Title" using $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ buttons, then press **ENTER** button.
Original list will appear.



- 2 Select a desired title using $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ buttons, then press **ENTER** button.
The selected title will be added in Playlist.

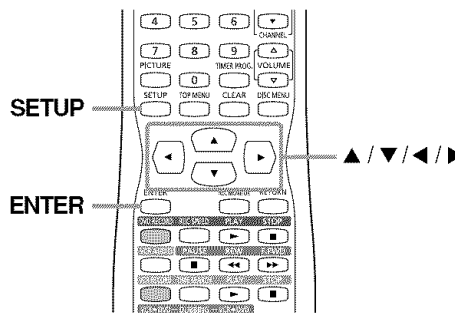


- 3 After writing to disc is completed, press **SETUP** button to exit DISC menu.
 - To delete a title from Playlist, refer to "Deleting Titles" on page 68.
 - To delete a Playlist, refer to "Deleting Playlist" in the next section.

Deleting Playlist

DVD-RW (VR)

A Playlist can be deleted if no longer needed.

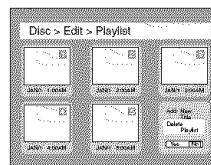


Follow the steps [1] to [3] on page 68 to display the Playlist.

- 1 Select "Delete Playlist" using $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ buttons, then press **ENTER** button.
Option window will appear.

NOTE: Playlist

• Deleting a Playlist will not increase the available recording time on disc.



- 2 Select "Yes" using $\blacktriangleleft/\blacktriangleright$ buttons, then press **ENTER** button.

Playlist will be erased. The display will return to TV screen.

OPERATING DVD RECORDER

EDITING DISCS

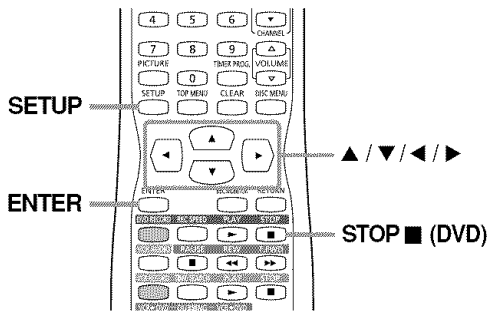
OPERATING DVD RECORDER

PARENTAL LOCK LEVEL SETTING

Some DVD-Video discs feature a Parental Lock level. Playback will stop if the ratings exceed the levels you set, it will require you to enter a password before the disc will playback. This feature prevents your children from viewing inappropriate material.

NOTE: Parental Lock Availability

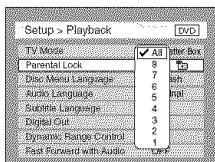
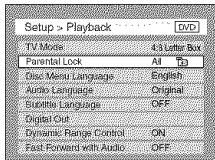
- Parental lock function may not be available to some discs.
- With some DVDs, it may be difficult to find if they are compatible with parental lock. Be sure to check if the parental lock function operates as you have set.



Press **STOP (DVD)** button if you are playing a disc.

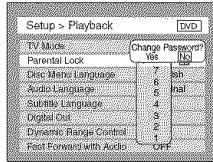
- 1 Press **SETUP** button to display SETUP/DISC menu. SETUP/DISC menu will appear.
- 2 Select "SETUP" using **◀▶** buttons, then press **ENTER** button. SETUP menu will appear.
- 3 Select "Playback" using **▲/▼/◀▶** buttons, then press **ENTER** button. Option window will appear.
- 4 Select "Parental Lock" using **▲/▼** buttons, then press **ENTER** button.

Parental Lock (Default :All)
Set the Parental Lock level.



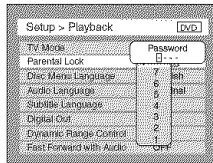
- Change the parental level using **▲/▼** buttons, then press **ENTER** button. Option window will appear. Proceed to step [A] or [B].

[A] A password has not been set yet



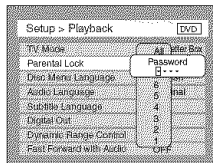
- If you select "No", proceed to step [5].

Yes



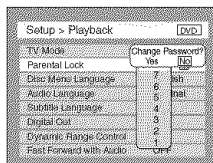
- Select "Yes" using **◀▶** buttons, then enter a new password using Number buttons. Then, press **ENTER** button. Your setting will be activated.

[B] A password has been set already



- Enter the current password using Number buttons.

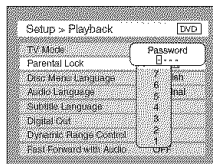
Yes



- If you select "No", proceed to step [5].

Yes

Change the password



- Select "Yes" using **◀▶** buttons, then enter a new password using Number buttons. Then, press **ENTER** button. Your setting will be activated.

NOTE: Forget Password

- Record the password in case you forget it.
- Press **CLEAR** button to erase numbers entered incorrectly.
- When you forget the password or you want to clear all settings in Parental lock, enter 4,7,3,7 using Number buttons in option window. Password will be cleared and parental levels will be set to All.

- 5 Press **SETUP** button to exit SETUP menu.

CHANGING SETUP MENU

SETUP MENU LIST

The following table shows the contents you can set, including the default settings.
Refer to the following table for useful operation.

SETUP menu	Items (highlight is the default)	Contents
1. Language setting ➡ Page 32	Disc Menu Language English French Spanish ⋮	Set the language for disc menu.
	Audio Language Original English French ⋮	Set the language for audio.
	Subtitle Language OFF English French ⋮	Set the language for subtitle.
2. Audio setting ➡ Pages 12-13	Digital Out PCM Auto 48kHz 96kHz	Set whether the sound recorded in 96kHz will be down sampled in 48kHz.
	Dolby Digital PCM Stream	Set the type of sound signal which outputs from the digital audio output jack.
	Dynamic Range Control ON OFF	Compressing the range of sound volume.
	Fast Forward with Audio ON OFF	Outputting the sound during play in fast forward.
3. OSD Display setting ➡ Pages 14-15, 24-27	OSD Background Transparency 100% ⋮ 35% 25% ⋮	Set the background transparency of OSD screen.
	OSD Background Color 1 2 3	Set the OSD screen color. 1 (Green), 2 (Blue), 3 (Red)
	OSD Language English Français Español	Select the language for OSD.
	Screen Saver OFF 5 minutes 10minutes ⋮	Set the time to work the screen saver on the screen.
	Caption OFF CAPTION1 ⋮	Set the closed caption mode.
	V-CHIP Setup TV RATING MPAA RATING CHANGE CODE	Prevent their children from watching inappropriate material on TV.
	Parental Lock ALL level 8 to 1	Set the parental level of your DVD discs.
4. Parental setting ➡ Page 72	(Change password) Enter the current four-digit password	Set and change the password.

NOTE:


• If you change the setting in SETUP menu, the information remains even when the power is turned off.

OTHERS

TROUBLESHOOTING

Before requesting service for this unit, check the table below for a possible cause of the problem you are experiencing. Some simple corrections may solve the problem and restore the proper operation.

Symptom	Remedy
Power The power does not turn on.	<ul style="list-style-type: none"> • Check that the AC power cord is connected securely.
Picture There is no picture.	<ul style="list-style-type: none"> • Re-connect the connecting cord securely. • The connecting cords are damaged. • The Setup Display appears. Press SETUP or RETURN button to turn off the display. • Check antenna/cable wire and the fittings at each end of the wire.
Picture noise appears.	<ul style="list-style-type: none"> • The disc is dirty or flawed. • Head cleaning for VCR may be necessary. Refer to "AUTO HEAD CLEANING". • Adjust tracking control for better picture by pressing CHANNEL ▲/▼ buttons while you are playing a video tape. • Check antenna/cable wire and the fittings at each end of the wire.
TV program reception does not fill the screen.	<ul style="list-style-type: none"> • Try to set the channels with "Auto Preset" in SETUP menu (page 16). • Select a channel of any TV program using the CHANNEL ▲/▼ buttons. • Check antenna/cable wire and the fittings at each end of the wire.
TV program pictures are distorted.	<ul style="list-style-type: none"> • Adjust antenna. • Adjust the picture. • Place this unit and any bunched antenna cables farther apart. • Check antenna/cable wire and the fittings at each end of the wire.
TV channels cannot be changed.	<ul style="list-style-type: none"> • Connect the antenna cable correctly (page 10). • Perform auto channel preset on page 16. • Check antenna/cable wire and the fittings at each end of the wire.
Distorted color appears on screen	<ul style="list-style-type: none"> • Magnetism from nearby appliances and unshielded speakers and geomagnetism might affect the color of the TV picture. Move the TV/VCR/DVD away from the appliances or unshielded speakers, the TV/VCR/DVD can repair itself automatically. If you want to repair immediately, unplug the power cord, then plug it in again after 30 minutes later or so.
Sound No sound is output.	<ul style="list-style-type: none"> • Adjust volume control. • The disc is dirty or flawed. • Re-connect all connections securely. • The connecting cord is damaged. • Check the connections to the amplifier input. • The input source setting on the amplifier is incorrect. • The unit is in Pause mode or in Slow-motion play mode. • The unit is in fast forward or fast reverse mode. • If the audio signal does not come through the AUDIO OUT COAXIAL jack, check the Audio Setup settings (pages 12-13).
Sound is noisy.	<ul style="list-style-type: none"> • The disc is dirty or flawed. • When playing a DTS-CD, noise may come from the speakers. This unit is not compatible with DTS-CD.
No DTS sound is output.	<ul style="list-style-type: none"> • This unit is not compatible with DTS sound.

Symptom	Remedy
Playback The disc does not play.	<ul style="list-style-type: none"> • No disc is inserted. • A blank disc is inserted. • No cassette tape is inserted. • The disc is upside down. Insert the disc with the labeled side facing up. • The disc is not correctly inserted. • The unit cannot play certain discs (such as a CD-ROM) (page 31). • The region code on the DVD VIDEO does not match the unit (page 31). • Moisture has condensed inside the unit. Remove the disc and leave the unit turned on at least for 2 hours until the moisture evaporates (page 5). • If the disc was recorded on other recorder, the unit cannot play the disc if it was not finalized (page 54).
The disc does not start playback from the beginning.	<ul style="list-style-type: none"> • Resume play was activated (page 36). Press STOP ■ (DVD) button twice. • You have inserted a disc whose Title menu or DVD menu automatically appears on the TV screen when it is first inserted.
The unit starts playing from the disc automatically.	<ul style="list-style-type: none"> • The DVD VIDEO features an auto playback function.
Some functions such as Stop, Search, or Slow-motion Play cannot be performed.	<ul style="list-style-type: none"> • Depending on the disc, you may not be able to do some of the operations above. See the instruction manual supplied with the disc.
The language for the sound track cannot be changed.	<ul style="list-style-type: none"> • Multilingual tracks are not recorded on the DVD VIDEO, DVD-R or DVD-RW being played. • The DVD VIDEO prohibits the changing of the language for the sound track. • Try changing the language using the DVD VIDEO's menu.
The subtitle language cannot be changed or turned off.	<ul style="list-style-type: none"> • Multilingual subtitle are not recorded on the DVD VIDEO. • The DVD VIDEO prohibits changing of the subtitles. • Try changing the subtitle using the DVD VIDEO's menu.
The angles cannot be changed.	<ul style="list-style-type: none"> • Multi-angles are not recorded on the DVD VIDEO being played. • You are trying to change the angles when  icon does not appear on the TV screen (page 43). • The DVD VIDEO prohibits changing angles. • Try changing the angle using the DVD VIDEO's menu.
Recording/Timer recording/Editing The channel cannot be changed from the channel you are recording.	<ul style="list-style-type: none"> • You can only watch the channel currently being recorded.
Recording does not start immediately after you press DVD RECORD or VCR RECORD button.	<ul style="list-style-type: none"> • An unused DVD-R or DVD-RW was inserted. It takes a while for the unit to automatically format a disc. • Make sure the tape has a record tab when you record to a cassette tape. If needed, cover the hole with cellophane tape.
Nothing was recorded even though you set the timer setting correctly.	<ul style="list-style-type: none"> • There was a power failure during recording. • The units internal clock stopped due to a power failure that lasted for more than 3 seconds. Reset the clock (page 19). • Disconnect the AC power cord from the AC outlet, and connect it again. • The program contains copy protection signals that restrict copying. • The timer setting overlapped with another setting that was set later or has priority.
Recording does not stop immediately after you press STOP ■ button.	<ul style="list-style-type: none"> • It will take a few seconds for the unit to input disc data before recording stops.
Timer recording is not completed or did not start from the beginning.	<ul style="list-style-type: none"> • The timer setting overlapped with another setting that was set later or has priority (page 60). • Disc space was not enough.
Timer recording is not available.	<ul style="list-style-type: none"> • Make sure that the recordable tape or disc should be inserted in the unit. If not, press POWER button.

OTHERS

TROUBLESHOOTING

Symptom	Remedy
Remote control The remote control does not function.	<ul style="list-style-type: none"> Batteries are weak. There are obstacles between the remote control unit and the main unit. The remote control unit is far from the main unit. There are no batteries in the remote control unit. The remote control is not pointed at the remote sensor on the unit. Check if a cassette tape is in this unit.
Others The unit does not operate properly.	<ul style="list-style-type: none"> When static electricity causes the unit to operate abnormally, unplug the unit and wait a few minutes, then plug it in again.
The disc tray does not open when you press ▲ OPEN/CLOSE button in the main unit.	<ul style="list-style-type: none"> It may take a few seconds for the disc tray to open after you have recorded or edited a disc. The unit may be adding disc data to the disc. The unit may still be recording.
My TV/VCR/DVD is showing captions that are misspelled.	<ul style="list-style-type: none"> You are watching a live broadcast and spelling errors made by the closed captioning production company may pass through uncorrected. A prerecorded program will not show any misspelled words because of the normal time available for editing the captions.
My TV/VCR/DVD will not show the text dialogue in its entirety or there is a delay of what is being said.	<ul style="list-style-type: none"> Captions that are delayed a few seconds behind the actual are common for live broadcast. Most captioning production companies can display a dialogue to a maximum of 220 words per minute. If a dialogue exceeds that rate, selective editing is used to insure that the captions remain up-to-date with the current TV screen dialogue.
My captions are scrambled with white boxes on the TV screen.	<ul style="list-style-type: none"> Interference caused by building, power lines, thunderstorms, etc. may cause scrambled or incomplete captions to appear.
My program guide listed a TV show as being closed captioned but none of the captions were displayed.	<ul style="list-style-type: none"> Broadcasters may at times use a time compression process to speed up the actual program so that additional advertising time can be given. Since the decoder cannot read the compressed information, captions will be lost.
My prerecorded video tape does not show any captions. The tape box mentions it being closed captioned.	<ul style="list-style-type: none"> The video tape was either an illegal copy or the tape duplicating company accidentally left out the captioning signals during the copying process.
My TV screen shows a black box on certain channels.	<ul style="list-style-type: none"> You are in the TEXT mode. Set CAPTION mode to CAPTION [OFF].
"Repairing" appears on the display. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;"> Repairing </div>	<ul style="list-style-type: none"> If there is a power failure or unplugging during recording, finalizing, formatting or editing, a Repairing process will begin automatically just after turning the unit on again. It may take several minutes up to about four hours.
▲ The DVD disc that I recorded will not be played on other DVD units.	<ul style="list-style-type: none"> You must "Finalize" all recorded discs before they can be played on other DVD players. Without finalization, Video mode discs cannot be played back on other DVD players, and VR mode discs cannot be played back on other VR compatible players. See "Finalizing Discs" on page 54.
I have finalized the DVD disc, but it will still not be played back on other DVD units.	<ul style="list-style-type: none"> Not all DVD recordable discs will be played on all DVD units. This is inherent in the DVD recordable format.

Error message	Cause	Solution
Disc Error -- Please eject the disc. -- Playback feature may not be available on this Disc.	Unplayable disc is inserted in the DVD recorder.	Insert the standardized disc which bear the marks on page 31.
Region Error -- Please eject the disc. -- Playback is not authorized in your region.	Playback is not authorized because the region code of the DVD video disc you inserted is different.	Insert the DVD-Video disc with region codes 1 or ALL.
Parental Lock On -- Please eject the disc. -- The current selected parental level Prohibits playback.	The current selected parental level in the SETUP Menu prohibits playback.	Check the "Parental Lock" setting (page 72).
Recording Error This program is not allowed to be recorded.	The recording function encountered the copy prohibited program.	You cannot record copy prohibited programs.
Recording Error This program is not recordable in Video mode.	You are trying to record the copy-once program onto the DVD-RW disc in Video mode or the DVD-R disc.	Set "DVD-RW Recording Format" to "VR mode" (page 49-50).
Recording Error Can not record on this disc.	You are trying to record onto the disc which is unrecordable, or the disc status prevents recording.	Insert the recordable disc, and ensure the disc status satisfies the recording requirements (pages 48-55).
Recording Error This program is not allowed to be recorded on this disc.	You are trying to record a copy-once program onto a DVD-RW disc which is not compatible with CPRM.	Insert a ver.1.1 CPRM compatible DVD-RW disc (page 49).
Recording Error This disc is protected and not recordable.	You are trying to record on to the protected disc which is set in the Disc Setting Menu.	Release the disc protect setting in the Disc Setting menu (page 55).
Recording Error Disc is full. (No area for new recording)	You are trying to record onto the disc which has no space for recording.	Insert the recordable disc with enough recording space.
Recording Error You cannot record more than 99 titles on one disc. (The maximum is 99)	You are trying to record onto the disc on which the number of recording titles comes up to the maximum (99).	Delete unnecessary titles (pages 62, 64).
Recording Error You cannot record more the 999 chapters on one disc. (The maximum is 999)	You are trying to record onto the VR mode DVD-RW disc on which the number of recording chapters comes up to the maximum (999).	Delete unnecessary chapter markers (pages 63, 66).
Recording Error You cannot record on this disc as Control Information is full.	This disc has no space to write the Control Information when recording or deleting contents. When editing has been repeatedly performed, the control information area may come up to be full even the recording area has enough space.	Delete unnecessary titles (pages 62, 64).
Recording Error You cannot record on the disc as Power Calibration Area is full.	This disc's working area for recording is full. When recordings are performed repeatedly onto an unstable disc, this area may fill up.	Insert a new disc.
Recording Error This disc is already finalized.	You are trying to record onto the disc already finalized.	Release the finalizing for this disc (page 54).



OTHERS

M MAINTENANCE**CLEANING DISCS**

- When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out. Do not wipe in a circular motion.
- Do not use solvents such as benzine, thinner, commercially available cleaners, detergent, abrasive cleaning agents or antistatic spray intended for analogue records.

CLEANING THE DISC LENS

- If this unit still does not perform properly although you refer to the relevant sections and to "TROUBLESHOOTING GUIDE" in this Owner's Manual, the laser optical pickup unit may be dirty. Consult your dealer or an Authorized Service Center for inspection and cleaning of the laser optical pickup unit.

DISC HANDLING

- Handle the discs so that fingerprints and dust do not adhere to the surfaces of the discs.
- Always store the disc in its protective case when it is not used.

CABINET CLEANING

- Wipe the front panel and other exterior surfaces of the TV/VCR/DVD with a soft cloth immersed in lukewarm water and wrung dry.
- Never use a solvent or alcohol. Do not spray insecticide liquid near the TV/VCR/DVD. Such chemicals may cause damage and discoloration to the exposed surfaces.

AUTO HEAD CLEANING

- Automatically cleans video heads as you insert or remove a cassette, so you can see a clear picture.
- Playback picture may become blurred or interrupted while the TV program reception is clear. Dirt accumulated on the video heads after long periods of use, or the usage of rental or worn tapes can cause this problem.

If a streaky or snowy picture appears during playback, the video heads in your TV/VCR/DVD may need to be cleaned.

1. Please visit your local Audio/Video store and purchase a good quality VHS Video Head Cleaner.
2. If a Video Head Cleaner does not solve the problem, please call our help line at 1-800-488-1222, to locate an Authorized Service Center.

NOTES:

- Remember to read the instructions included with the video head cleaner *before use*.
- Clean video heads *only* when problems occur.

SERVICING

- Should your TV/VCR/DVD become inoperative, do not try to correct the problem by yourself. There are no user-serviceable parts inside. Please refer to the warranty statement page at the rear of this manual.

L LANGUAGE CODE

Language	Code	Language	Code	Language	Code	Language	Code
(Afan) Oromo	6159	Finnish	5255	Lingala	5860	Sindhi	6550
Abkhazian	4748	French	5264	Lithuanian	5866	Singhalese	6555
Afar	4747	Frisian	5271	Macedonian	5957	Siswat	6565
Afrikaans	4752	Galician	5358	Malagasy	5953	Slovak	6557
Albanian	6563	Georgian	5747	Malay	5965	Slovenian	6558
Amharic	4759	German	5051	Malayalam	5958	Somali	6561
Arabic	4764	Greek	5158	Maltese	5966	Spanish	5165
Armenian	5471	Greenlandic	5758	Maori	5955	Sundanese	6567
Assamese	4765	Guarani	5360	Marathi	5964	Swahili	6569
Aymara	4771	Gujarati	5367	Moldavian	5961	Swedish	6568
Azerbaijani	4772	Hausa	5447	Mongolian	5960	Tagalog	6658
Bashkir	4847	Hebrew	5569	Nauru	6047	Tajik	6653
Basque	5167	Hindi	5455	Nepali	6051	Tamil	6647
Bengali; Bangla	4860	Hungarian	5467	Norwegian	6061	Tatar	6666
Bhutani	5072	Icelandic	5565	Occitan	6149	Telugu	6651
Bihari	4854	Indonesian	5560	Oriya	6164	Thai	6654
Bislama	4855	Interlingua	5547	Panjabi	6247	Tibetan	4861
Breton	4864	Interlingue	5551	Pashto; Pushto	6265	Tigrinya	6655
Bulgarian	4853	Inupiak	5557	Persian	5247	Tonga	6661
Burmese	5971	Irish	5347	Polish	6258	Tsonga	6665
Byelorussian	4851	Italian	5566	Portuguese	6266	Turkish	6664
Cambodian	5759	Japanese	5647	Quechua	6367	Turkmen	6657
Catalan	4947	Javanese	5669	Rhaeto-Romance	6459	Twi	6669
Chinese	7254	Kannada	5760	Romanian	6461	Ukrainian	6757
Corsican	4961	Kashmiri	5765	Russian	6467	Urdu	6764
Croatian	5464	Kazakh	5757	Samoan	6559	Uzbek	6772
Czech	4965	Kinyarwanda	6469	Sangho	6553	Vietnamese	6855
Danish	5047	Kirghiz	5771	Sanskrit	6547	Volapuk	6861
Dutch	6058	Kirundi	6460	Scots Gaelic	5350	Welsh	4971
English	5160	Korean	5761	Serbian	6564	Wolof	6961
Esperanto	5161	Kurdish	5767	Serbo-Croatian	6554	Xhosa	7054
Estonian	5166	Laothian	5861	Sesotho	6566	Yiddish	5655
Faroese	5261	Latin	5847	Setswana	6660	Yoruba	7161
Fiji	5256	Latvian; Lettish	5868	Shona	6560	Zulu	7267

GLOSSARY

Analog audio

An electrical signal that directly represents sound.

Compare this to digital audio which can be an electrical signal, but is an indirect representation of sound. See also "Digital audio".

Aspect ratio

The width of a TV screen is relative to its height. Conventional TVs are 4:3 (in other words, the screen is almost square); widescreen models are 16:9 (the screen is almost twice as wide as it is high).

Chapter

Just as a book is split up into several chapters, a title on a DVD disc is usually divided into chapters.

See also "Title".

CPRM

(Content Protection for Recordable Media)

CPRM is a copy protection system with scramble system regarding the recording of "copy-once" broadcast programs (e.g. some satellite broadcasts).

Digital audio

An indirect representation of sound by numbers.

During recording, the sound is measured at discrete intervals (44,100 times a second for CD audio) by an analog-to-digital converter, generating a stream of numbers. On playback, a digital-to-analog converter generates an analog signal based on these numbers. See also "Sampling frequency" and "Analog audio".

Dolby Digital

The system to compress digital sound developed by Dolby Laboratories.

It offers you sound of stereo(2ch) or multi-channel audio (up to 6 channels (5.1ch)).

MP3 (MPEG Audio Layer 3)

MP3 is a method of compressing files. You can copy MP3 files on CD-R/RW discs from the computer and play the files on this unit.

▲ Finalize

To make DVD discs, which have been recorded on, possible to play in other DVD players. With this unit, it is possible to finalize DVD-R/DVDRW discs.

PCM (Pulse Code Modulation)

The most common system of encoding digital audio, found on CDs and DAT.

Excellent quality, but requires a lot of data compared to formats such as Dolby Digital and MPEG audio. For compatibility with digital audio recorders (CD, MD and DAT) and AV amplifiers with digital inputs, this unit can convert Dolby Digital and MPEG audio to PCM. See also "Digital audio".

Playlist

From this list you can play contents of a disc as your desired order or in sequence. Also it is allowed to search a specific scene directly.

Regions code

Regions associate discs and players with particular areas of the world. This unit will only play discs that have compatible region codes. You can find the region code of your unit by looking on the rear panel. Some discs are compatible with more than one region (or all regions).

Sampling frequency

The sound rate is measured by a specified interval to turn into digital audio data. The numbers of sampling in one second defines as sampling frequency. The higher the rate, the better the sound quality as possible as it is.

SAP

(Secondary Audio Program)

Second-audio channel delivered separately from main-audio channel. This audio channel is used as an alternate in bilingual broadcasting.

S-Video output

It delivers independently each signal of color(C) and luminance (Y) to TV as video signals, so that higher-quality picture will be gained.

Title (DVD only)

A collection of chapters on DVD disc.

See also "Chapter".

Track

Audio CDs use tracks to divide up the content of a disc. The DVD equivalent is called a chapter. See also "Chapter".

SPECIFICATIONS

GENERAL SPECIFICATIONS

CRT	27 inch in-line gun, 90° deflection tube
Television system :	NTSC-M
Closed caption system :	§15.119/FCC
Video Heads :	Rotary four-head
Tape width :	1/2 inch
Tape speed	
SP :	33.40mm/sec.
LP :	16.67mm/sec. (playback only)
SLP :	11.12mm/sec.
Tuner channel	
TV VHF Low :	#2~#6
TV VHF High :	#7~#13
TV UHF :	#14~#69
CATV	
VHF :	5A
MID band :	A5~A1, A~I
SUPER band :	J~W
HYPER band :	W+1~W+84
System:	DVD-Video, DVD-R/RW, CD-DA, CD-R/RW

ELECTRICAL SPECIFICATIONS

Sound output: 2 speakers, 1W, 8 ohm

OTHER SPECIFICATIONS

Terminals	
Antenna input:	VHF/UHF/CATV 75 ohm unbalanced (F-type)
S-Video input:	75 ohm 4 pin mini DIN
Video input:	RCA connector × 1
Audio L/R input:	RCA connector × 2
Headphone:	1/8" stereo (3.5 mm)
Coaxial digital audio output:	One pin jack, 500m Vpp (75 ohm)
Remote control:	Digital encoded infrared light system
Operating temperature:	5°C to 40°C (41°F~104°F)
Operating humidity:	5% to 85% (no condensation)
Power requirements:	AC 120V, 60Hz
Power consumption (Maximum):	143W
Picture tube:	27 Pure Flat
Dimensions:	W:30-9/16" (776mm) D:19-15/16" (507mm) H:25-3/8" (644mm)
Weight:	94.8 lbs (43kg)

NOTE:

• The specifications and design of this product are subject to change without notice.



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90 Day Full Warranty

If this (product) experiences any failure due to a defect in material or workmanship within 90 days from the date of purchase, return it to your nearest Sears Parts & Repair Center, and Sears will repair it free of charge.

After 90 days and until one (1) year from the date of purchase, Sears will replace defective parts free of charge. You pay for labor.

After 90 days and until two (2) years from the date of purchase, Sears will replace the Picture Tube if it is defective. You pay for labor.

This warranty applies only if this (product) is used for private household purposes.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

For the location of a Sears Service Center in your area : 1-800-488-1222

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