

SYLVANIA

Owner's Manual

DVD Recorder

DVR90DE



INSTRUCCIONES EN ESPAÑOL INCLUIDAS.

Please read before using this equipment.

If you need additional assistance for set-up or operating after reading owner's manual, please call TOLL FREE : 1-800-968-3429 or visit our web site at <http://www.funai-corp.com>

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



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION:

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



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



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

IMPORTANT SAFEGUARDS

- 1) Read Instructions - All the safety and operating instructions should be read before the product is operated.
- 2) Retain Instructions - The safety and operating instructions should be retained for future reference.
- 3) Heed Warnings - All warnings on the product and in the operating instructions should be adhered to.
- 4) Follow Instructions - All operating and use instructions should be followed.
- 5) Cleaning - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 6) Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 7) Water and Moisture - Do not use this product 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 product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- 9) A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- 10) Ventilation - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product 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.
- 11) Power Sources - This product 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 product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- 12) Grounding or Polarization - This product may be 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.
- 13) 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 product.
- 14) Lightning - For added protection for this product 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 product 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, extension cords, or integral convenience receptacles 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 product 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 product.
- 18) Servicing - Do not attempt to service this product 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 product 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,
 - b) If liquid has been spilled, or objects have fallen into the product,
 - c) If the product has been exposed to rain or water,
 - d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
 - e) If the product has been dropped or damaged in any way, and
 - f) When the product 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 has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- 21) Safety Check - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- 22) Heat - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

PORTABLE CART WARNING
(Symbol provided by RETAC)



S3125A

PRECAUTIONS

LASER SAFETY

This player 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, ON THE DECK MECHANISM.

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.

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.

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.

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.

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

About Copyright

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.

Features

Not only playing the discs of DVD or CD, but this DVD recorder features for you recording to DVD discs and editing them after that.

Followings are what you can do with this DVD recorder.

Recording

This DVD recorder is compatible for you with both DVD-RW, which is rewritable repeatedly, and DVD-R, which is available for recording once. You can choose either one for your convenience.

Up to 8 program recording:

You can program the unit to record up to 8 programs, up to a year in advance. Daily or weekly program recordings are also available.

One-touch timer recording:

Easily you can set a recording time as you prefer. Every time the REC button pressed during recording, the recording time will be increased by 30 minutes up to 4 hours. The recording automatically stops when the recording time you set is reached.

REC MONITOR:

Just one press of REC MONITOR button makes you available for confirming of the recording picture quality with the current recording mode before you attempt to record the program. You can change the recording mode to another here.

Automatic Chapter marker setting:

Chapter markers will be put on recordings as you set in SETUP menu before attempting to record. It greatly helps you to edit the recordings as you purpose.

Automatic Title menu making:

The DVD recorder makes title menus automatically as the recordings are made.

Automatic PLAYLIST making (VR mode):

The Playlist will be prepared from the Original list, so that you can edit titles in Playlist as you prefer. The original list is kept as it is.

Play

Theater surround sound in your home:

When connecting the DVD recorder to an amplifier or a decoder which is compatible with Dolby Digital, you are allowed to experience the theater surround sound from discs with those surround sound systems.

Quick search for what you want to watch:

You can easily find the part you want to watch using search function. Search for a point on a disc by title, chapter, or time.

Start to play from Original Playlist:

Title playing is available from either an original list or Playlist.

Editing

Setting/Clearing chapter markers:

You can easily add chapter markers anywhere in your recordings for easy editing. (VR mode)

Making your own Playlist:

With the original remains as it is, you can edit titles on Playlist variously as you prefer.

Putting names on titles (Page XX)

Setting pictures for thumbnails (Page XX)

Setting/clearing chapter markers (Page XX)

Deleting parts of titles (Page XX) etc

Protecting titles:

To avoid erasing titles, the protect function is useful when it is ON in the original list.

Compatibility

Available for playing discs recorded with Video mode on a regular DVD player (Video mode):

Discs recorded with the Video mode can be played on regular DVD players, including computer DVD drives compatible with DVD-Video playback*.

* DVD-Video Format (Video mode) is a new format for recording on DVD-R/RW discs that was approved by the DVD Forum in 2000. Adoption of this format is optional for manufactures of DVD playback devices, and there are DVD-Video players, DVD-ROM drives or other DVD playback devices that do not play DVD-R/RW discs recorded in the DVD-Video Format.

Easy understanding for DVD recording

You may have some simple questions about DVD recording. The followings will help you to understand easily how to prepare for DVD recording and to attempt to record. To DVD discs in steps.

Step 1: Choose a disc type

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There are several types of DVD disc recordable for the intension of use. Choose an applicable type by following "Quick guide to DVD disc type".

This DVD recorder can record on the following type of discs.



For example, when you want to record repeatedly on the same disc, or when you want to edit the disc after recording, select either 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: Format the disc be ready for recording

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Insert the disc in the recorder. 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.

When using a DVD-RW

This type of disc can be formatted in either (Video mode or VR mode). Video mode discs can be played back on a variety of other DVD equipment. VR mode discs are allowed for more varied editing.

When using a DVD-R

These discs will be formatted in Video mode. This type of disc can be played back on a variety of other DVD equipment.

Note:

- You cannot mix two formats in one DVD-RW.
- You can change a DVD-RW's format to the other format. However, the disc's contents will be lost when reformatting.
- Not all discs can be played on other DVD equipment.

Now you are ready for recording.



Step 3: Record to DVD discs

Record a program by pressing REC button. When using the timer, one-touch timer recording, manual timer recording are available. Refer to each page describing the operation for details.

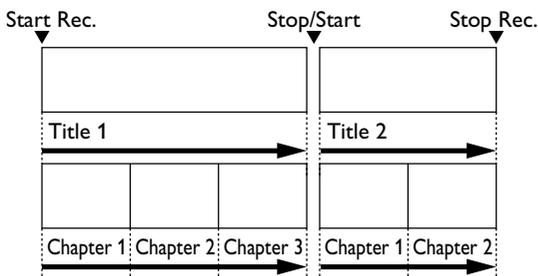


Step 4: Play the recorded contents

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 simple really as you choose a title on a chapter from the menu screen.

What is titles and chapters?

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



Step 5: Edit the recorded disc

You will find editing discs very easy, and the DVD recorder offers convenient edit functions, which are possible only with DVDs.

You can edit the followings from a title list.

- Putting names on titles
- Setting pictures for thumbnails (VR mode)
- Setting/clearing chapter markers
- Deleting parts of titles (VR mode)

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” refers 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.

Before you start

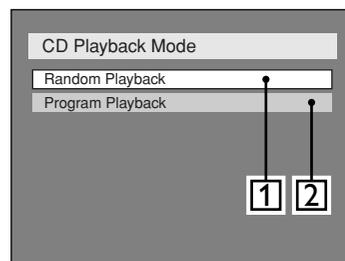
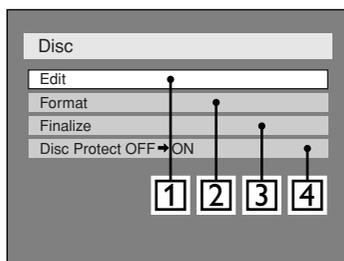
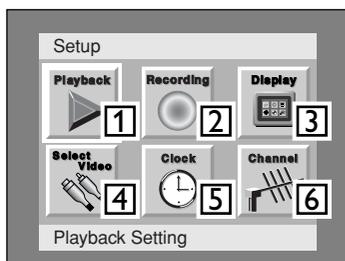
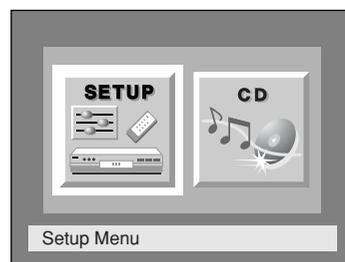
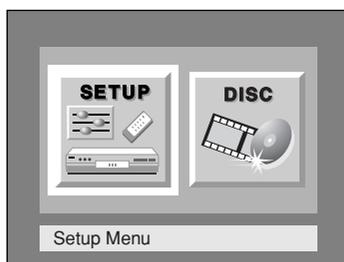
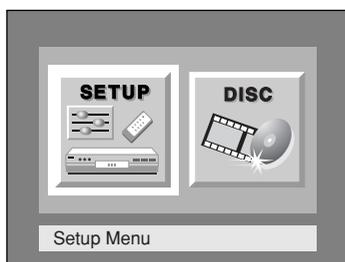
Guide to Displays

The DVD recorder 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. DISPLAY also gives you some disc information for checking the status of the disc.

SETUP/DISC/CD menu

Press SETUP button to display the setup main menu, then choose either of SETUP/DISC/CD by ▲ / ▼ / ◀ / ▶. Press ENTER button to display each menu.

These provides entries to all main functions of the DVD recorder.



1. Playback:

To set up the DVD recorder to play discs as you prefer.

2. Recording:

To set up the DVD recorder to record to discs as you prefer.

3. Display:

To set up the OSD screen of the DVD recorder as you prefer.

4. Select Video:

To choose a line input to record to DVD discs from other video equipment.

5. Clock:

To set up the clock of the DVD recorder as you need.

6. Channel:

To make the channel setting of the DVD recorder as you prefer.

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:

Allows you to protect a titles on an original list from accidental editing.

1. Random Playback:

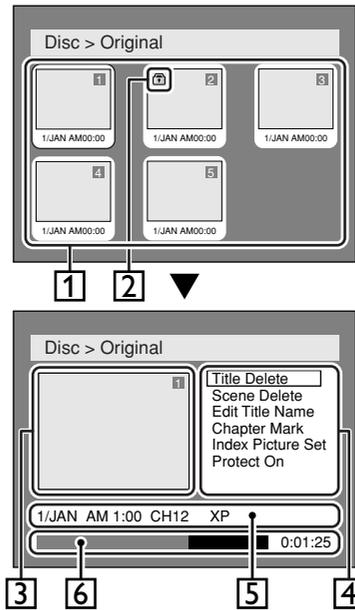
To set the random play programming.

2. Program Playback:

To set the program playing.

Edit

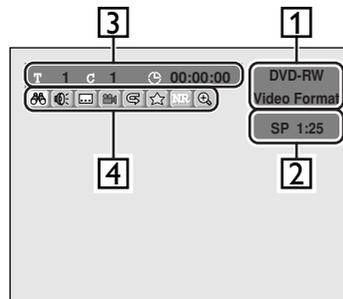
Title list allows you to check the titles recorded on the disc easily. You can choose a title to play from this screen and can easily edit the titles as you prefer.



1. Titles recorded on the disc. Each 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 selected title thumbnails from the title list.
4. The menus in here for editing titles as you prefer. The available menus 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, which can be used to put chapter marks as you prefer.

DISPLAY

DISPLAY appears by pressing DISPLAY button, then gives you the information on the disc playing. And some settings are available while disc play.



1. Indicates a disc type and a format mode.
2. Indicates a recording mode and possible recording time.
3. Indicates a title number, chapter number, and the time lapse of disc play.
4. Each icon means:

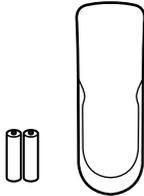
- : Search
- : Audio
- : Subtitle
- : Angle
- : Repeat
- : Marker
- : Noise Reduction
- : Zoom

Before you start

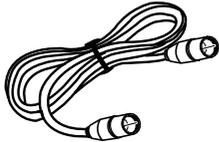
Accessories

You will find the following accessories when unpacking the carton box.

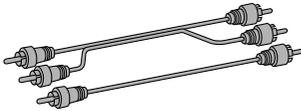
- Remote control with two AA batteries (NB001UD)



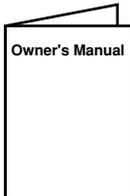
- RF cable (WPZ0901TM002)



- Audio/Video cables



- Owner's Manual (0VMN03892)



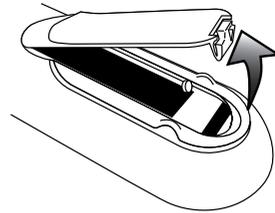
Installing batteries in the remote control

You will need to install batteries in the remote control to be ready to use.

1

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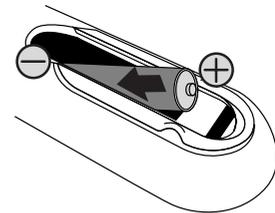
Unsnap the battery cover from the back of the remote control.



2

.....

Install two AA batteries making sure the polarity (+ / -) direction is correct.



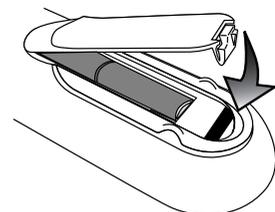
Note:

When replacing batteries, make sure to replace them in pairs.

3

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Snap the battery cover back.



Note:

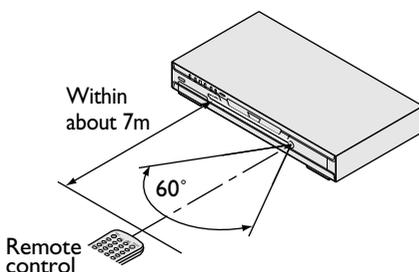
Incorrect use of batteries can result in hazards such as leakage and bursting. Please observe the following:

- Do not mix new and old batteries together.
- Do not use different kinds of battery together, although they may look similar, different batteries may have different voltages.
- Make sure that the plus and minus ends of each battery match the indications in the battery compartment.
- Remove batteries from equipment that is not going to be used for a month or more.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
- Do not recharge, short-circuit, heat, burn or disassemble batteries.

Using a remote control

Keep in mind the following when using the remote control:

- Make sure that there are no obstacles between the remote control and the remote sensor on the DVD recorder.
- Use within the operating range and angle as shown.
- Remote operation may become unreliable if strong sunlight or fluorescent light is shining on the remote sensor of the DVD recorder.
- Remote controllers for different devices can interfere with each other. Avoid using remotes for other equipment located close to the DVD recorder.
- Replace the batteries when you notice a fall off in the operating range of the remote control.
- When the batteries run down or you change the batteries, the remote control mode and TV preset code are automatically reset. See page XX to reset them.



Information on this owner's manual

This owner's manual is designed mainly for the operation of the remote control: Please read this owner's manual carefully to learn how to use the features explained through the manual.

Symbol in this owner's manual

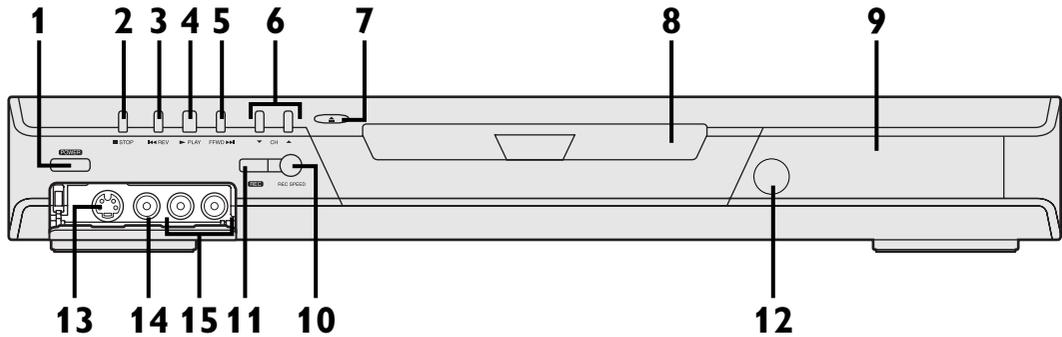
Many functions of this DVD recorder are depending on the disc type or the recording mode. To specify for what disc type or recording mode each function is, we put the following symbols at the beginning of each item to operate.

Symbol	Description
DVD-V	Available to DVD Video discs
DVD-RW Video	Available to DVD-RW with Video mode
DVD-RW VR	Available to DVD-RW with VR mode
DVD-R	Available to DVD-R discs
CD	Available to CD discs

Before you start

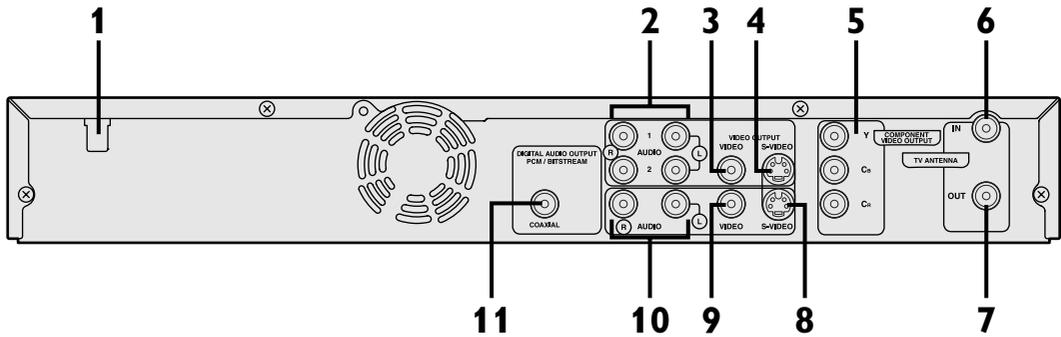
Location of controls

Front Panel



- 1. POWER button**
Press to turn the DVD recorder on and off.
- 2. STOP ■ button**
Press to stop play or recording.
- 3. REW ◀◀ button**
Press to skip to the previous chapter or track.
Press and hold for 1.5 seconds to fast reverse.
- 4. PLAY ▶ button**
Press to start or resume play.
- 5. FF ▶▶ button**
Press to skip to the next chapter or track.
Press and hold for 1.5 seconds to fast forward.
- 6. CH ▼ / ▲ button**
Press to change the channel up and down.
- 7. ▲ (OPEN/CLOSE) button**
Press to open or close the disc tray.
- 8. Disc tray**
Place a disc when open.
- 9. Display**
- 10. REC SPEED button**
Press to switch the recording speed.
- 11. REC button**
Press to start recording.
- 12. Remote control sensor**
Receive signals from your remote control so that you can control the DVD recorder from a distance.
- 13. S-VIDEO INPUT(LINE2)**
Use to connect the S-Video output of external equipment with an S-Video cable.
- 14. VIDEO INPUT(LINE2)**
Use to connect external equipment with a standard video cable.
- 15. AUDIO INPUT(LINE2)**
Use to connect external equipment with standard audio cables.

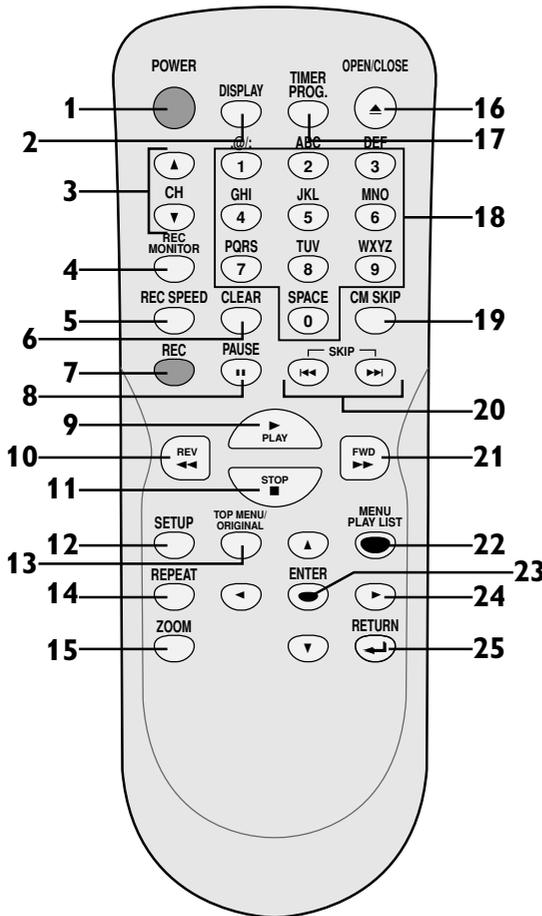
Rear Panel



- | | |
|--|--|
| <p>1. AC IN – Power inlet</p> <p>2. AUDIO OUTPUT 1, 2
Use to connect a TV monitor, AV receiver or other equipment with standard audio cables.</p> <p>3. VIDEO OUTPUT
Use to connect a TV monitor, AV receiver or other equipment with a standard video cable.</p> <p>4. S-VIDEO OUTPUT
Use to connect the S-Video input of a TV monitor, AV receiver or other equipment with an S-Video cable.</p> | <p>5. COMPONENT VIDEO OUTPUT
Use to connect a TV monitor with component video inputs with component video cables.</p> <p>6. TV ANTENNA IN
Use to connect an antenna.</p> <p>7. TV ANTENNA OUT
Use to connect an antenna cable to pass the signal from the TV ANTENNA IN to your TV monitor.</p> <p>8. S-VIDEO INPUT (LINE1)
Use to connect the S-Video output of external equipment with an S-Video cable.</p> |
| | <p>9. VIDEO INPUT (LINE1)
Use to connect external equipment with a standard video cable.</p> <p>10. AUDIO INPUT (LINE1)
Use to connect external equipment with standard audio cables.</p> <p>11. COAXIAL DIGITAL AUDIO OUTPUT
Use to connect an AV receiver, Dolby Digital decoder or other equipment with a coaxial digital input with a digital coaxial cable.</p> |

Before you start

Remote Control

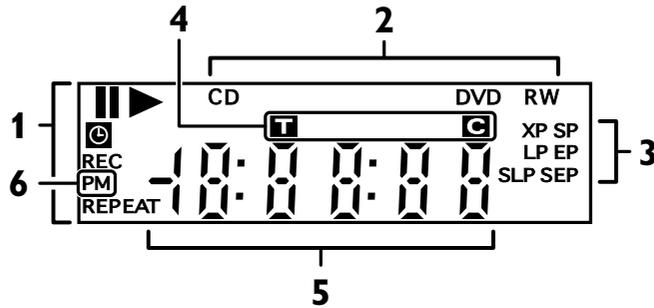


1. **POWER button**
Press to turn the DVD recorder on and off.
2. **DISPLAY button**
Press to display or change the on-screen display.
3. **CH ▲ / ▼ button**
Press to change the channel up and down.
4. **REC MONITOR button**
Press to check the video to be recorded before attempting.
5. **REC SPEED button**
Press to switch the recording speed.
6. **CLEAR button**
Press to clear the password once entered or to cancel the programming for CD or to clear chapter search function.

7. **REC button**
Press to start recording.
8. **PAUSE II button**
Press to pause play or recording.
9. **PLAY ► button**
Press to start or resume play.
10. **REV ◀◀ button**
During play, press to play fast reverse.
Or during play is paused, press to play slow reverse.
11. **STOP ■ button**
Press to stop play or recording.
12. **SETUP button**
Press to display the setup menu.

13. **TOPMENU button**
Press to display the top menu.
14. **REPEAT button**
Press to repeat play.
15. **ZOOM button**
Press to enlarge the picture on the screen.
16. **OPEN/CLOSE ▲ button**
Press to open or close the disc tray.
17. **TIMER PROG. button**
Press to display the timer program setting menu.
18. **Number buttons**
Press to select a title/chapter/track on display or a TV channel.
Or press to enter values for the settings in the SETUP menu.
19. **CM SKIP button**
Press to skip the 30 sec.
20. **SKIP ◀◀ button**
During play, press to skip to the previous chapter or track.
Or during play is paused, press to play reverse step by step.
SKIP ▶▶ button
During play, press to skip to the next chapter or track.
Or during play is paused, press to play forward step by step.
21. **FWD ▶▶ button**
During playback, press to play fast forward.
Or during play is paused, press to play slow forward.
22. **MENU ORG/PL button**
Press to display the Play List.
23. **ENTER button**
Press to confirm or select menu items.
24. **▲ / ▼ / ▶ / ◀ buttons**
Press to move the cursor around the screen.
25. **RETURN ↵ button**
Press to return to the previously displayed menu screen.

Front display



1. Current status of the DVD recorder

- : Appears when a disc play is paused.
- : Appears during playing a disc.
- : Appears when the timer programming has been made and is proceeding.
- REC : Appears during recording is in proceed.
- REPEAT : Appears during repeat play.

2. Disc type

- CD : Appears when CD is inserted in the disc tray.
- DVD : Appears when DVD is inserted in the disc tray.
- DVD R : Appears when DVD-R is inserted in the disc tray.
- DVD RW : Appears when DVD-RW is inserted in the disc tray.

3. Recording speed

Indicates the recording speed of the disc.

4. Title/Track and Chapter mark

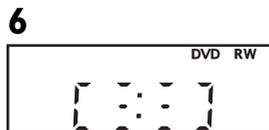
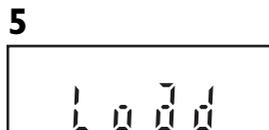
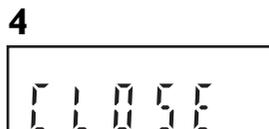
- : Appears when indicating a title/track number.
- : Appears when indicating a chapter number.

5. Displays the following

- Playing time / remaining time
- Current title / chapter / track number
- Recording time
- Clock
- Channel number

- 6. PM : Appears in the afternoon with the clock displaying.

Display message



- 1. Appears when the DVD recorder is powered on.
- 2. Appears when the DVD recorder is powered off.
- 3. Appears when the disc tray is opening or open.
- 4. Appears when the disc tray is closing or close.
- 5. Appears when a disc is loading or loaded in the disc tray.
- 6. Appears when recording data is writing on to the disc.

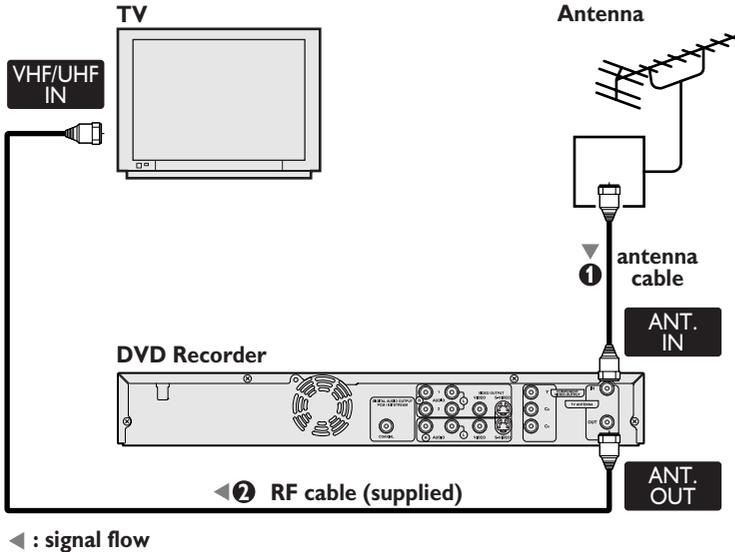
Connections

Use a standard antenna cable to connect the wall jack to the TV ANTENNA IN jack on the DVD recorder.

Connection to antenna

Note:

Antenna and antenna cable are not included.



1

Use a standard antenna cable to connect the wall jack to the TV ANTENNA IN jack on the DVD recorder.

2

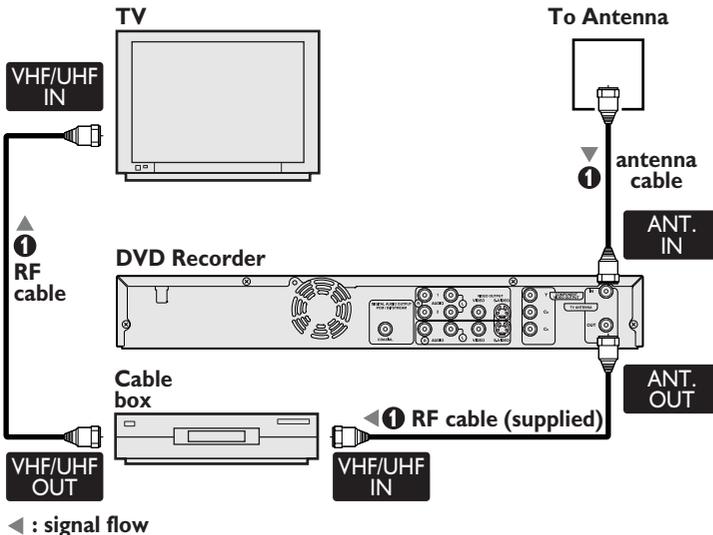
Use a standard antenna cable to connect the TV ANTENNA OUT jack on the DVD recorder to the antenna input jack on the TV.

When connecting to a cable box with only a few scrambled channels

If you are using a cable box or satellite receiver with only a few scrambled channels, follow the setup on this page. If many or all the channels are scrambled, we recommend using the setup on the following page.

Note:

Antenna and antenna cable are not included.
A piece of RF cable is included.



With this setup:

- You can record any non-scrambled channel by selecting the channel on the DVD recorder.
- You cannot record scrambled channels that require a cable box.

1

Use a standard antenna cable as shown.

Note to 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.

When connecting to a cable box with many scrambled channels

If many or all the channels you receive by cable or satellite are scrambled, we recommend using this setup.

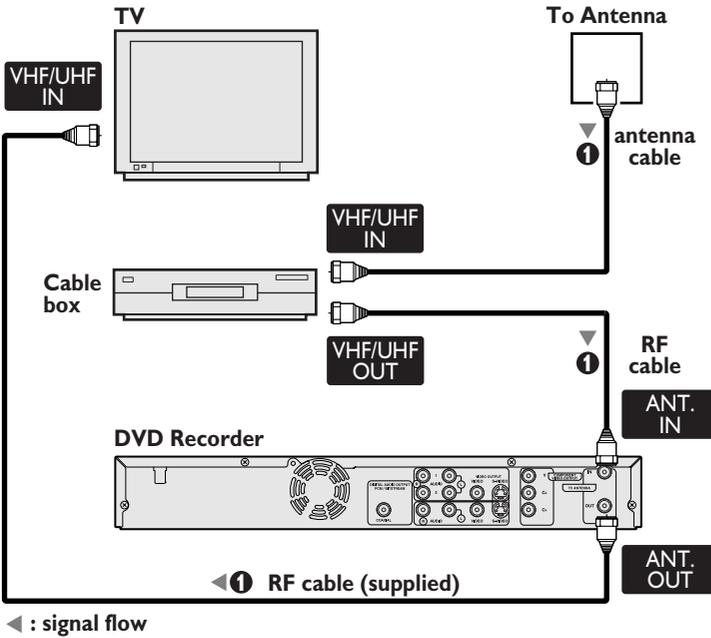
Note:

Antenna and antenna cable are not included.
A piece of RF cable is included.

With this setup:

- You can record any unscrambled channel by selecting the channel on the cable box. Be sure that the cable box is turned on.
- You cannot record one channel while watching another channel.

1
Use a standard antenna cable as shown.



Connections

Connection to other devices

There will be various ways of connecting the DVD recorder to other devices. Make your connection according to your choice of devices, screen format, and sound format. You will find some sample connections in the following pages.

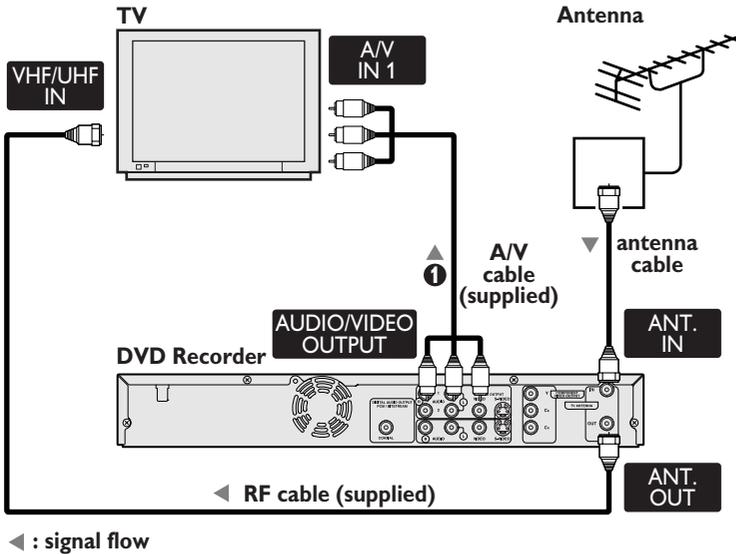
Note:

- All jack on the DVD recorder will not need to be connected.
- When you change the connections, all devices should be turned off.
- Refer to each owner's manual for further information on other devices.

Connection to TV with a standard A/V cable

Note:

Antenna and antenna cable are not included.



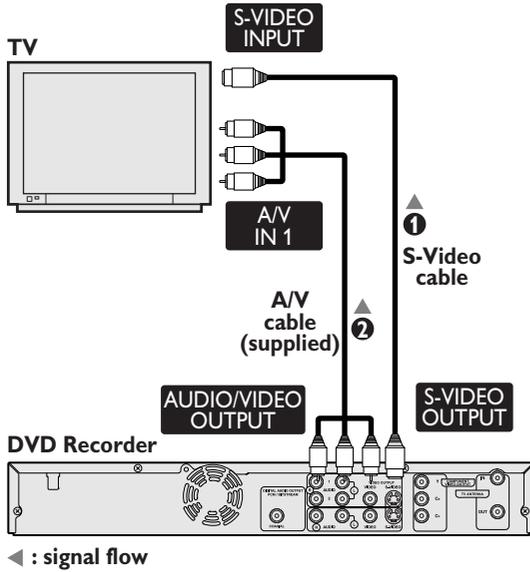
1

Use a standard A/V cable to connect the **AUDIO OUTPUT (L/R)** and **VIDEO OUTPUT** jacks on the DVD recorder to the audio and video input jacks on the TV.

Connection to TV with a S-Video cable

Note:

S-video cable is not included.



1

Use a S-Video cable to connect the **S-VIDEO OUTPUT** jack on the DVD recorder to the S-Video input jack on the TV.

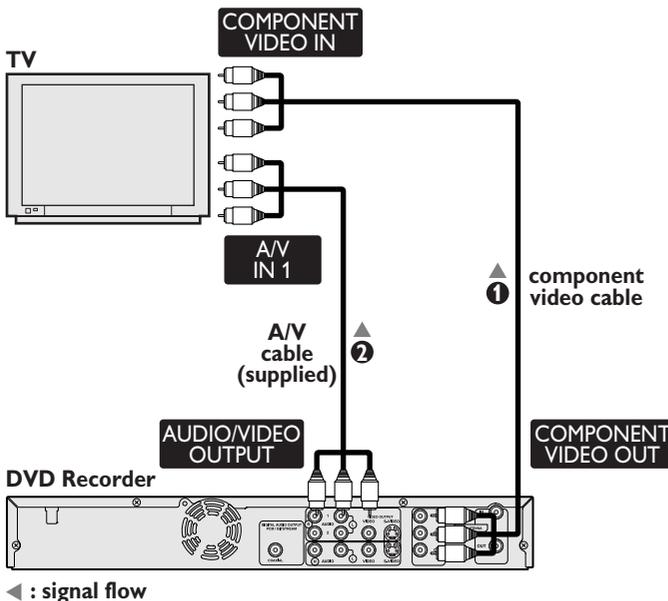
2

Use a standard audio cable to connect the **AUDIO OUTPUT(L/R)** on the DVD recorder to the audio input jacks on the TV.

Connection to TV with a component video cable

Note:

Component video cable is not included.



1

Use a component video cable to connect the **COMPONENT VIDEO OUTPUT** jacks on the DVD recorder to the component input jacks on the TV.

2

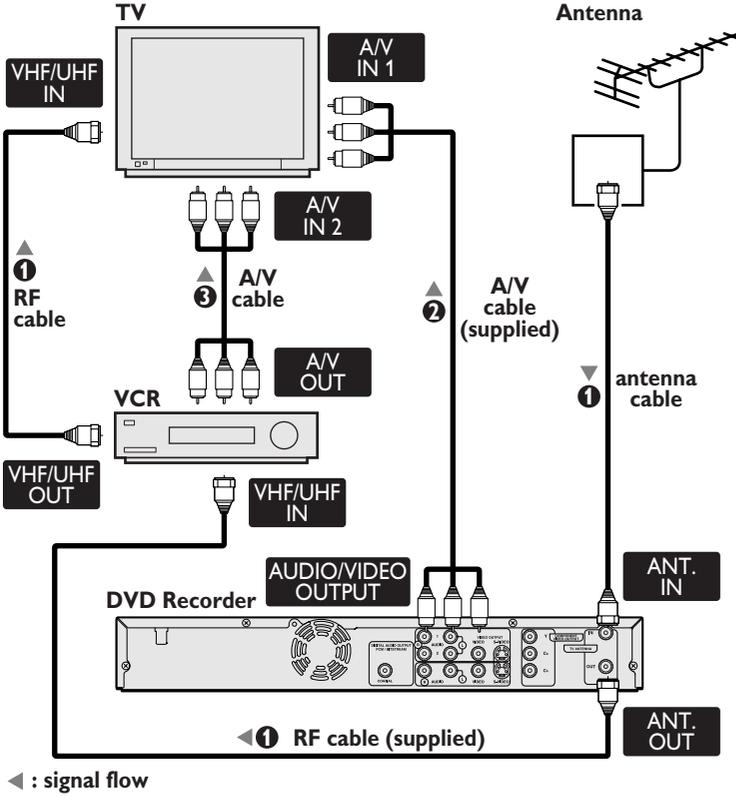
Use a standard audio cable to connect the **AUDIO OUTPUT(L/R)** on the DVD recorder to the audio input jacks on the TV.

Connections

Connection to TV and VCR

Note:

Antenna and antenna cable are not included.
A piece of Audio/Video cable and RF cable are included.



1

Use standard antenna cables to connect the DVD recorder and the VCR from the wall jack socket as shown.

2

Use a standard A/V cable to connect the AUDIO OUTPUT and VIDEO OUTPUT jacks on the DVD recorder to the audio and video input jacks on the TV.

3

Use a standard A/V cable to connect the audio and video output jacks on the VCR to the audio and video input jacks on the TV.

Connection to AV amplifier with a coaxial digital audio cable

To enjoy multichannel surround sound you need to connect this recorder to an AV amplifier/receiver using the coaxial output. In addition to a digital connection, we recommend also connecting using the stereo analog connection.

You'll probably also want to connect a video output to your AV amplifier/receiver. Use the standard (composite) video output (as shown here), or the S-Video or component video connections. Refer to your AV amplifier/receiver owner's manual for further information.

Note:

Antenna, antenna cable, and coaxial digital audio cable are not included. A piece of Audio/Video cable is included.

1

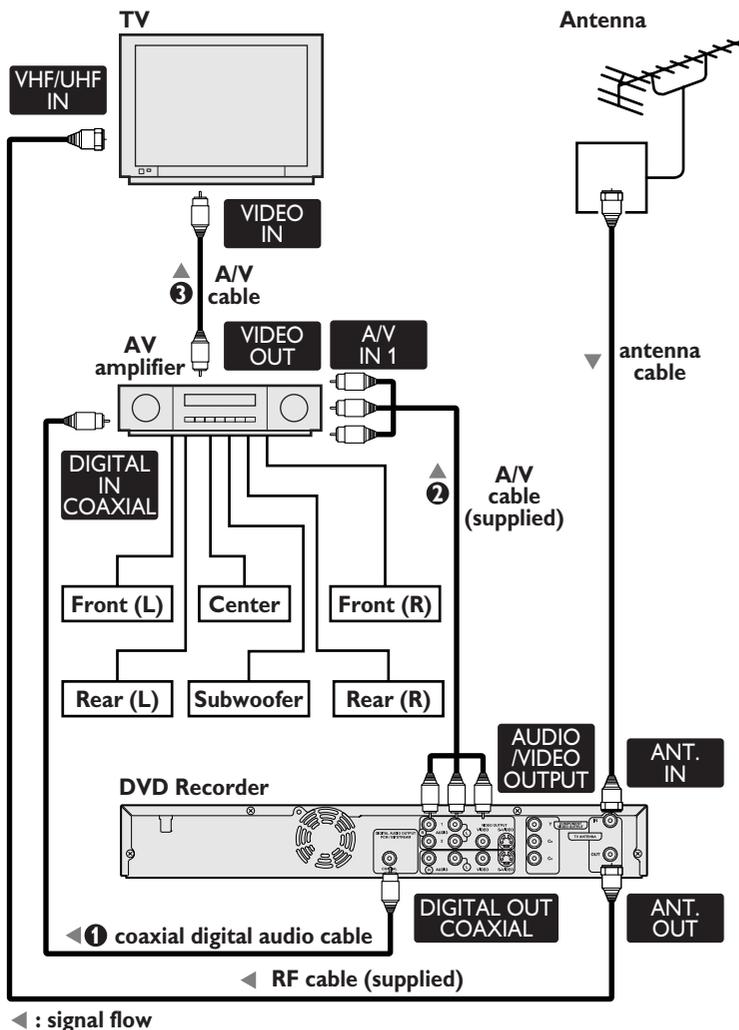
Use a coaxial digital audio cable to connect the **COAXIAL DIGITAL AUDIO OUTPUT** jack on the DVD recorder to the coaxial digital audio input jack on the AV amplifier.

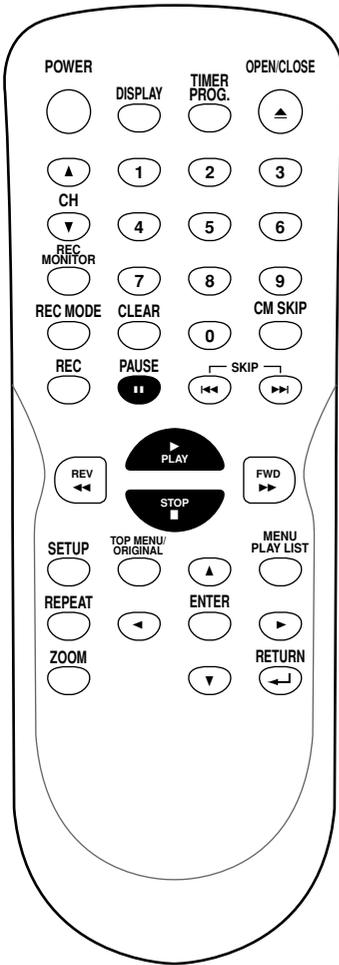
2

Use a standard AV cable to connect the **AUDIO OUTPUT** and **VIDEO OUTPUT** jacks on the DVD recorder to the audio and video input jacks on the AV amplifier.

3

Connect the AV receiver's video output to a video input on your TV.

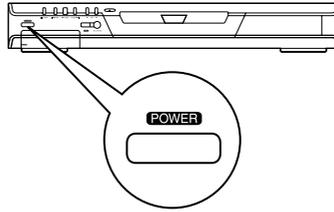




Switching on

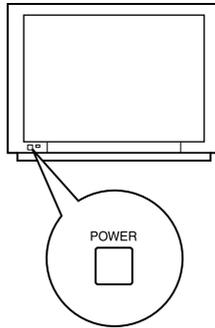
1

Press **POWER** button on the remote control or the front panel of the DVD recorder.



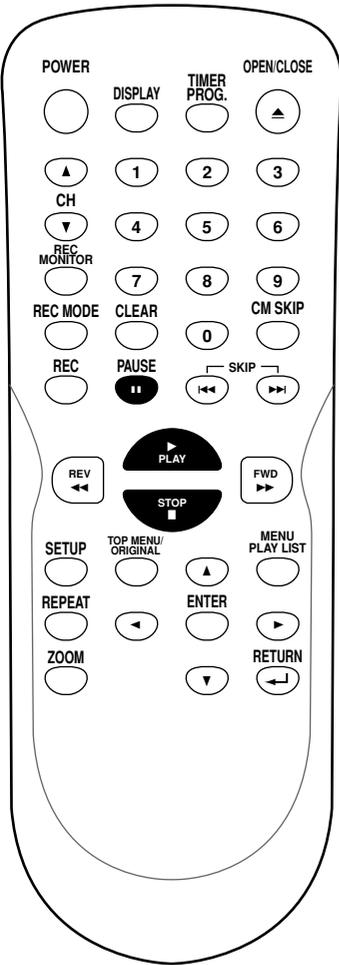
2

Turn the **TV** on and be sure to select the input to which the **DVD recorder** is connected.



Initial setting: Channel setting

All channel is stored in the DVD recorder when purchased. We recommend that you get available channels in your area stored using “Auto Preset” in Setup menu. If there are any channels you will not need, you will be able to remove the channels using “Manual Preset” in the menu.

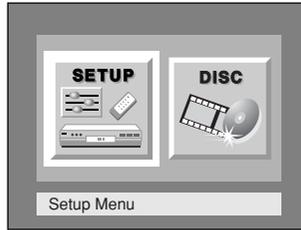


Getting channels automatically

1

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

Screen:



2

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

SETUP menu will appear.



3

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

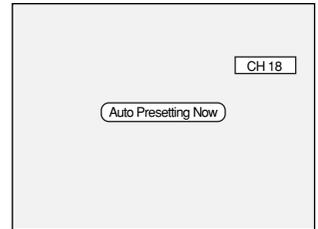
Channel Preset menu will appear.



4

Select **“Auto Preset”** using **▲** / **▼** buttons, then press **ENTER** button.

The DVD recorder will start getting channels available in your area.



To cancel the auto presetting during scanning:

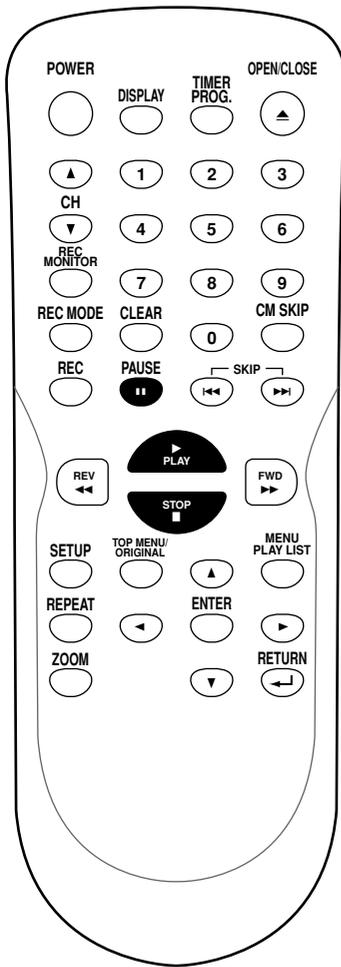
Press **RETURN** button or **SETUP** button to cancel.

Note:

- If the auto presetting is cancelled during presetting, some channels not yet preset may not be received.
- The selection will depend on how you receive the TV channels.

5

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

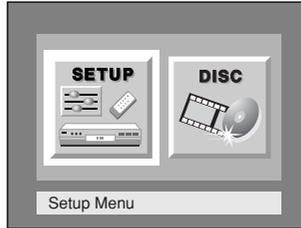


Adding/deleting channels

1

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

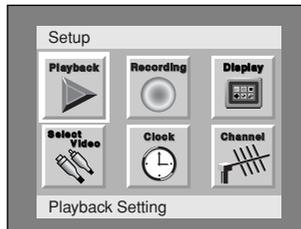
Screen:



2

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

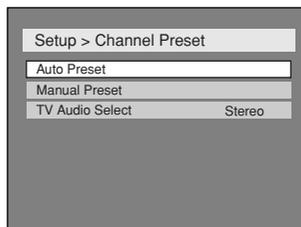
SETUP menu will appear.



3

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

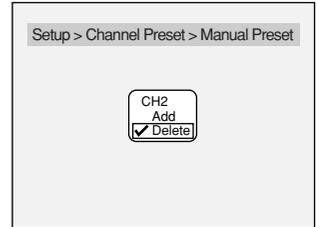
Channel Preset menu will appear.



4

Select **“Manual Preset”** using **▲ / ▼** buttons, then press **ENTER** button.

Manual Preset menu will appear.

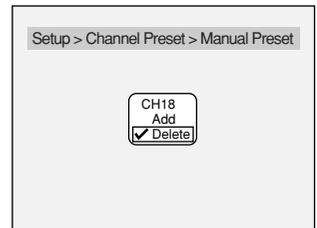


5

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.



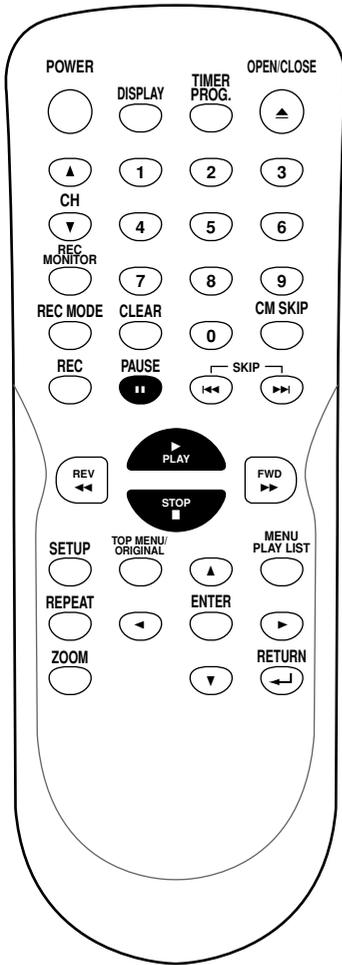
6

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

The channel number will be added or deleted from a channel memory. Then a next channel number will appear so that you can continue adding or deleting channels.

7

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



Initial setting: Clock

You will need to set the clock before you try the timer recording features. Set the clock using this menu, and we recommend to set the auto clock setting to AUTO to use the clock function effectively.

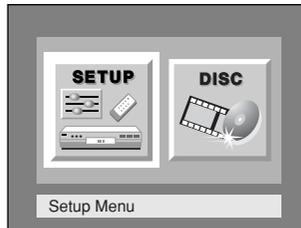
You can set the daylight savings time depending on whether or not currently observing the daylight savings time.

Setting the clock

1

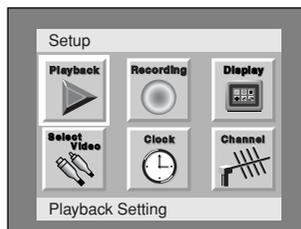
Press **SETUP** button to display **SETUP/DISC** menu. **SETUP/DISC** menu will appear.

Screen:



2

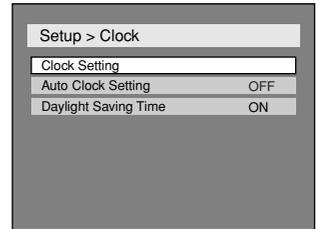
Select **SETUP** using **◀ / ▶** buttons, then press **ENTER** button. **SETUP** menu will appear.



3

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

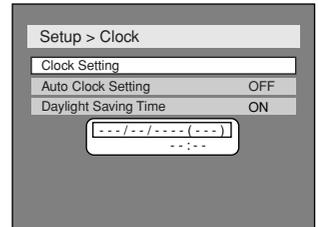
Clock menu will appear.



4

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

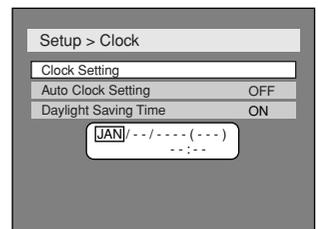
A clock setting window will appear.



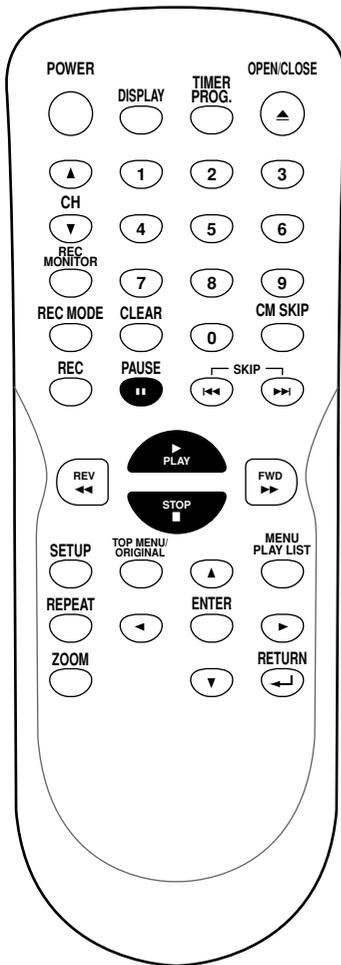
5

Select the date (month / day / year) using **▲ / ▼** buttons, then press **ENTER** button.

A cursor will move on the month.



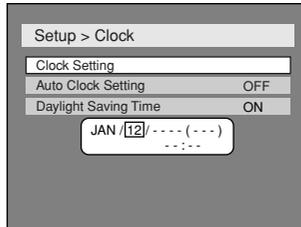
Getting started



6

Enter the date (month / day / year) using ▲ / ▼ buttons, then press **ENTER** button.

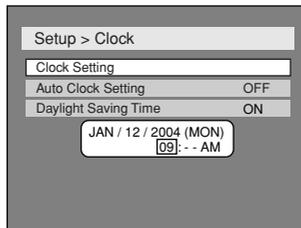
Every time you enter a number, press ◀ / ▶ button to move the cursor.



7

Select the time using ▲ / ▼ buttons, then press **ENTER** button.

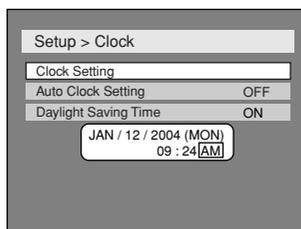
A cursor will move on hour.



8

Enter the time (hour / minute) using ▲ / ▼ buttons, then press ◀ / ▶ button.

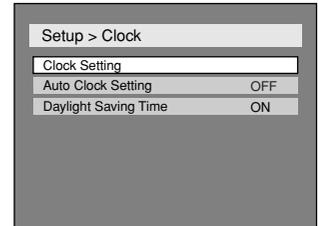
A cursor will move on AM or PM.



9

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

Clock menu will appear, then the settings will be activated.



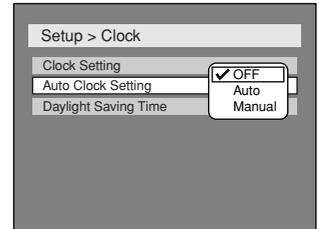
10

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

4

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

Option window will appear.



5

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

"OFF" has been selected as the default.

We recommend to set the auto clock setting to "Auto" to use the clock function effectively.

6

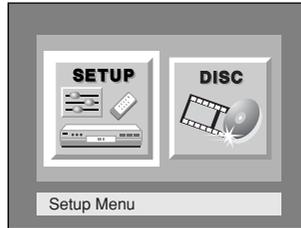
Press SETUP button to exit SETUP menu.

Adjusting the clock automatically

1

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

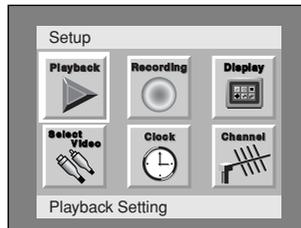
Screen:



2

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

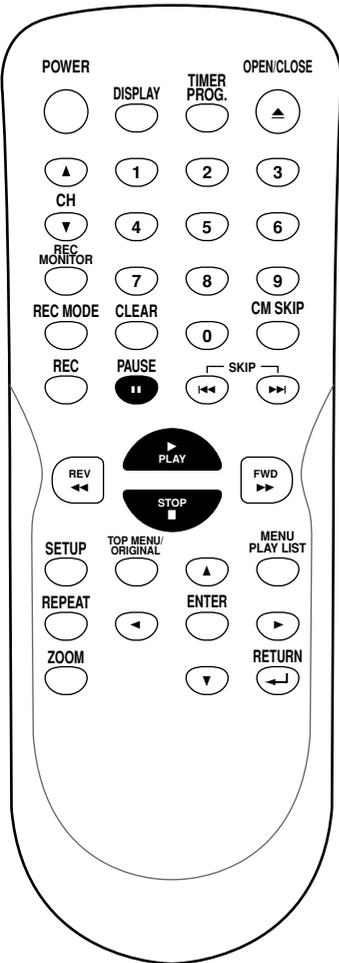
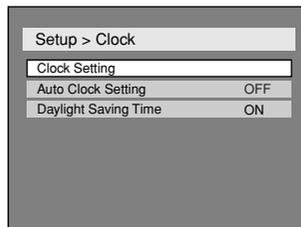
SETUP menu will appear.



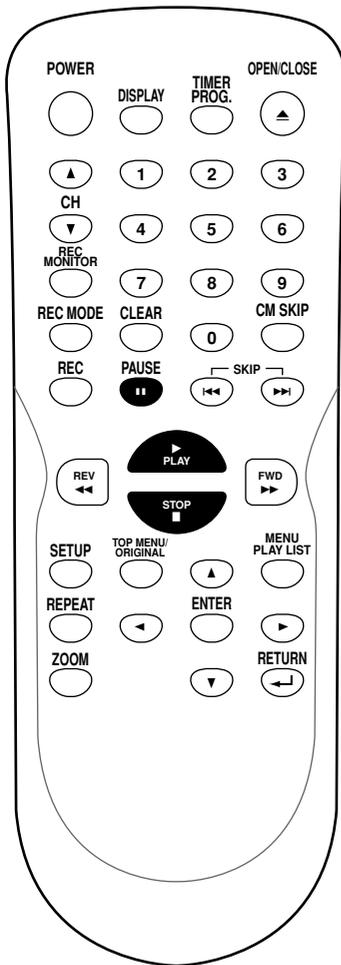
3

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

Clock menu will appear.



Getting started

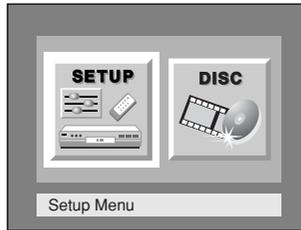


Setting the daylight savings time

1

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

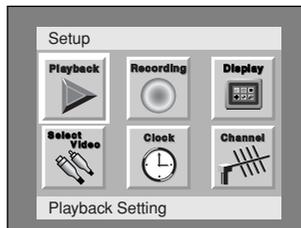
Screen:



2

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

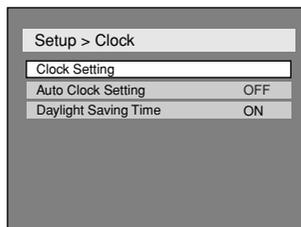
SETUP menu will appear.



3

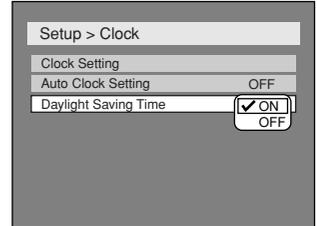
Select **“Clock”** using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

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 savings time.

6

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

Play Back menu will appear.

Setup > Play Back	
TV Aspect	4:3 Letter Box
Parental Lock	All
Disc Menu Language	English
Audio Language	Original
Subtitle Language	OFF
Digital Out	
Dynamic Range Control	ON
Fast Forward with Audio	OFF

4

Select "TV Aspect" using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.

Setup > Play Back	
TV Aspect	4:3 Letter Box
Parental Lock	4:3 Pan & Scan
Disc Menu Language	16:9 Wide
Audio Language	Original
Subtitle Language	OFF
Digital Out	
Dynamic Range Control	ON
Fast Forward with Audio	OFF

5

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

16:9 Wide:

Choose when you have a widescreen TV.

4:3 Letter Box, 4:3 Pan & Scan:

Choose one depending on which you will prefer to watch when you have a standard TV.

Note:

Refer to page xx for more information.

6

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

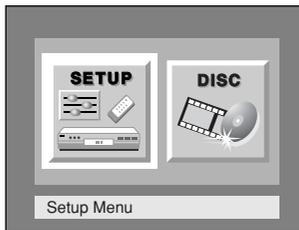
Initial setting: Selecting the TV aspect ratio

You can select the TV aspect ratio to match the formats of what you are playing with the DVD recorder and your TV screen (4:3 standard or 16:9 widescreen TV). "4:3 Letter Box" has been selected as the default.

1

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

Screen:



2

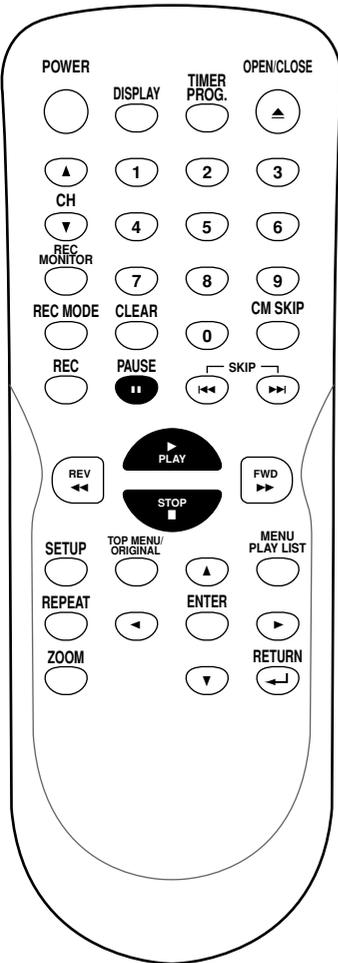
Select **SETUP** using **◀ / ▶** buttons, then press **ENTER** button.

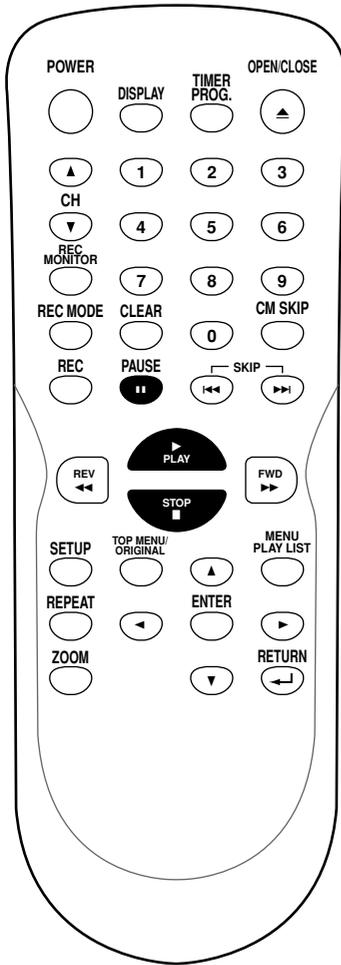
SETUP menu will appear.



3

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





Initial setting: RF converter output (Watching the TV programs received by the tuner of the DVD recorder)

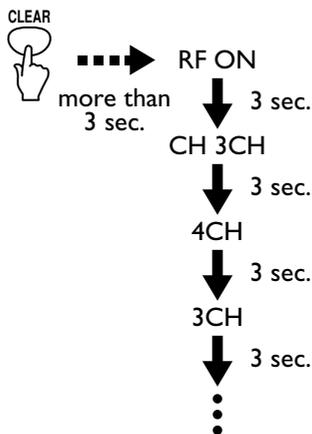
You can watch the TV programs from the tuner of the DVD recorder. To do this, be sure to make connections from the DVD recorder (TV ANTENNA OUT jack) to your TV (an antenna input jack) with an antenna cable. Refer to page 16.

With the correct connection, the RF converter is ON after the DVD recorder is turned on.

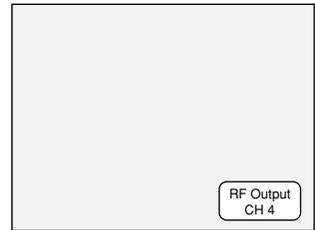
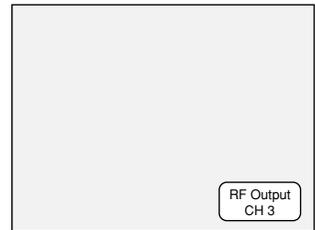
To change the channel for RF converter:
Press **CLEAR** button more than 3 seconds.

A channel for RF converter will change between 3CH and 4CH at 3 seconds.

Remote:



Screen:



Front display:



To cancel the RF converter:
Make one push of **CLEAR** button (Within 3 seconds).

Recording

Information on DVD recording

DVD-RW **DVD-R**

This DVD recorder 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,” then a recording format will be “Video mode,” so that you can play these discs, which are once finalized, in a regular DVD player.

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

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

Note:

- This recorder cannot record CD-R or CD-RW discs.
- DVD-R/RW and CD-R/RW discs recorded using a personal computer or a DVD or CD recorder may not play if the disc is damaged or dirty, or if there is dirt or condensation on the player’s lens.
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)

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

Recording speed

You can select a recording speed among 6 options, and the recording time will depend on the recording speed you select as follows.

Recording speed	Recording time
XP	60 min
SP	120 min
LP	240 min
EP	360 min
SLP	480 min
SEP	600 min

Restrictions on recording

You cannot record copy-protected video using this DVD recorder. Copy-protected video includes DVD-Video discs and some satellite broadcasts. If copy-protected material is encountered during a recording, recording will pause or stop automatically and an error message will be displayed on-screen. Video that is “copy-once only” can only be recorded using a DVD-RW disc in VR mode with CPRM (see below).

When recording a TV broadcast or through an external input, you can display copy control information on screen. (see page xx).

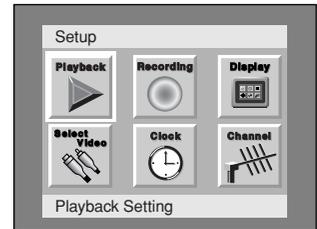
What is “CPRM”?

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 DVD recorder is CPRM compatible, which means that you can record copy-once broadcast programs, but you cannot then 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.

2

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

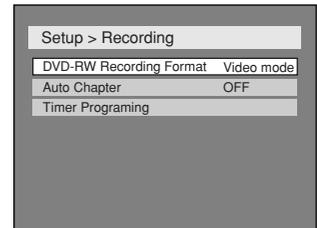
SETUP menu will appear.



3

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

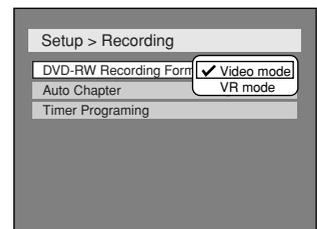
Recording menu will appear.



4

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

Option window will appear.



Video mode has been selected as the default.

Settings for recording to a blank disc

DVD-RW

When inserting a blank disc, the DVD recorder starts to initialize the blank disc.

After that, you can record to the disc with the recording format selected in SETUP menu.

You are allowed to set a specified time for chapter marks.

When setting a blank DVD+R or DVD+RW disc, this message will appear.

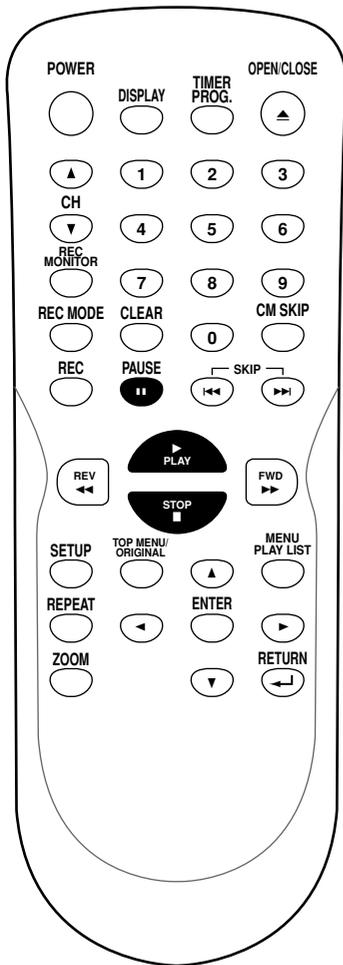
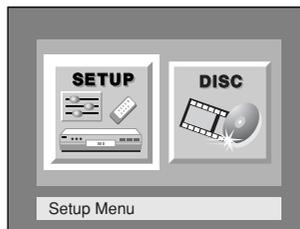


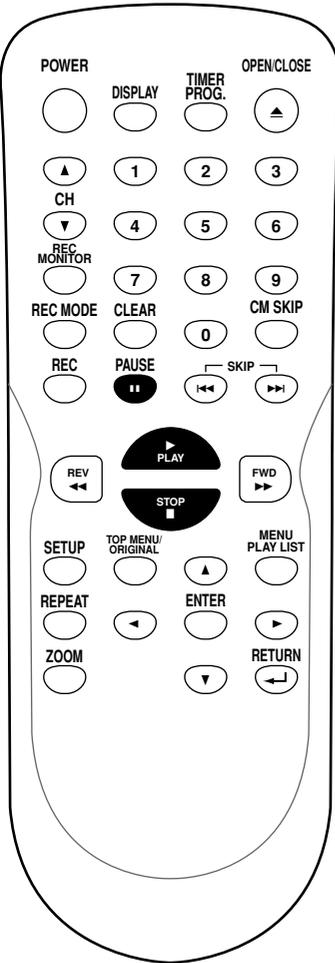
1

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

SETUP/DISC menu will appear.

Screen:





5

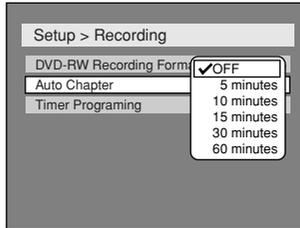
Select **“Video”** or **“VR”** using **▲ / ▼** buttons, then press **ENTER** button.

The recording mode will be set.

6

Select **“Auto Chapter”** using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



“OFF” has been selected as the default.

7

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

Chapter marks will put as you specified.

8

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

Formatting a disc

DVD-RW

If you are recording on a DVD-R disc, the recording mode will always be Video mode.

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.

Note1:

When reformatting, the contents of the disc will be erased.

Note2:

Be sure to select a recording format in **SETUP** menu for a DVD-RW disc before you attempt to format.

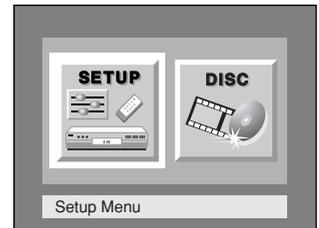
Refer to page xx “Settings for recording to a blank disc.”

1

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

SETUP/DISC menu will appear.

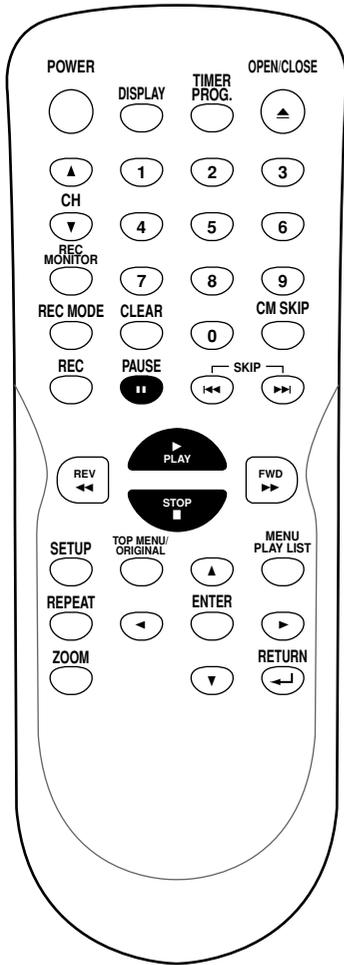
Screen:



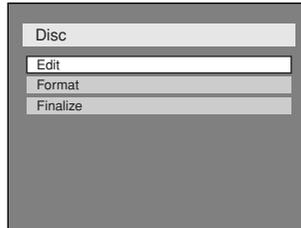
2

Select **“DISC”** using **◀ / ▶** buttons, then press **ENTER** button.

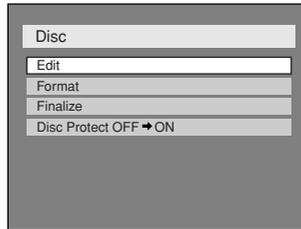
DISC menu will appear.



<Video mode>



<VR mode>

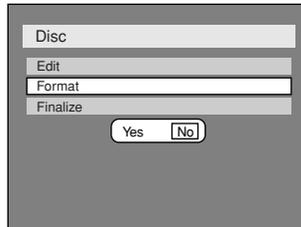


3

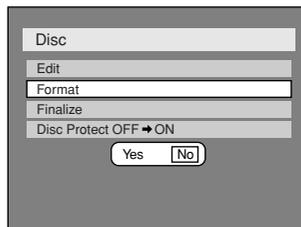
Select "Format" using ▲ / ▼ buttons, then press ENTER button.

Option window will appear.

<Video mode>



<VR mode>

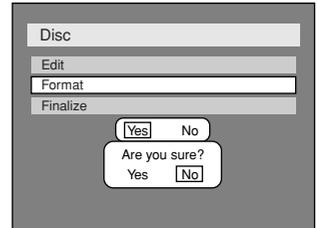


4

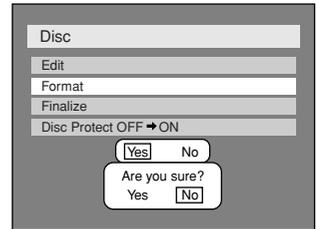
Select "Yes" using ◀ / ▶ buttons, then press ENTER button.

Option window will appear.

<Video mode>



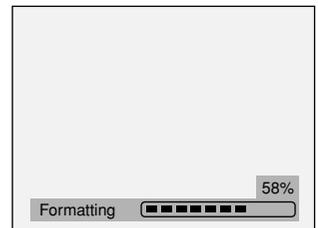
<VR mode>



5

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

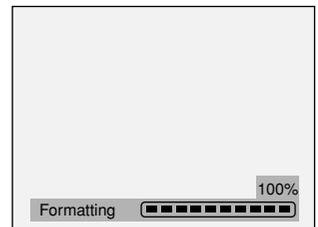
Formatting will start.



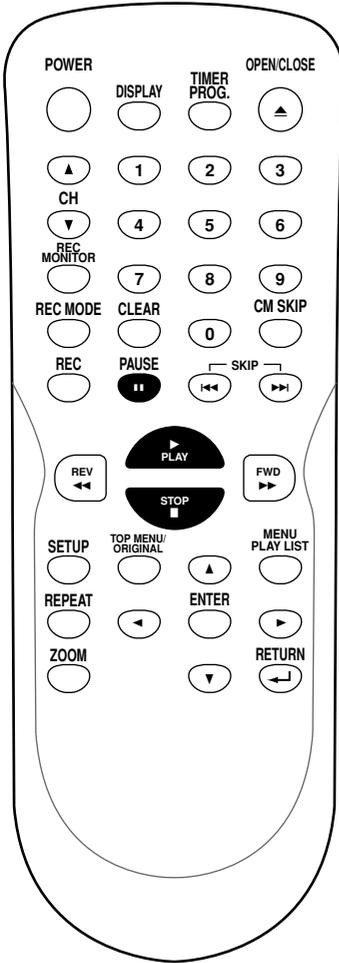
6

Formatting is complete.

100% will be indicated.



Press SETUP button to exit DISC menu.



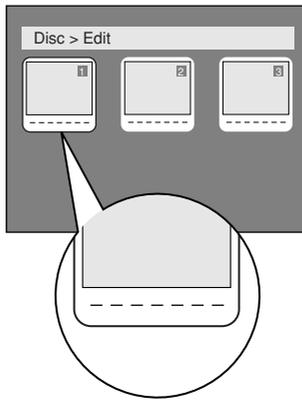
Recording from the TV

DVD-RW **DVD-R**

Follow the steps below to record TV programs. Recording starts immediately and continues until the disc is full or you stop recording.

Note:

When the clock setting has not been made, title names in the original or playlist will be blank.



1

Turn on the DVD recorder and load a recordable disc. Make sure that the TV input is set to the DVD recorder. The DVD recorder will require for a while to initialize the disc.

2

Select a recording speed using REC SPEED button. Refer to page XX "Recording speed."

3

Format a disc. Refer to page xx "Formatting a disc."

When a DVD-RW disc is loaded:

You can choose Video mode or VR mode from SETUP menu. "Video mode" has been selected as the default. Refer to page XX "Settings for recording to a blank disc."

Note:

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 you change it in SETUP menu.

When a DVD-R disc is loaded:

DVD-R discs will always be in Video mode.

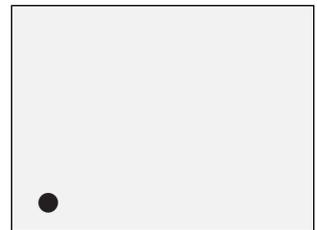
4

Select a desired channel to record using CH ▲ / ▼ buttons or number buttons.

5

Press REC button to start recording.

REC mark will be displayed for 5 seconds.



To pause the recording, press PAUSE ■■ button. Press REC button to restart the recording. To stop the recording, press STOP ■■ button.

Checking the recording picture quality

You can confirm the recording picture quality with the recording speed you have selected before attempting to record to a DVD disc. If the picture quality selected is not preferred, you can change the recording speed by pressing REC SPEED button.

This is available while the DVD recorder is in STOP, REC, or REC pause with a DVD disc to record inserted.

Note:

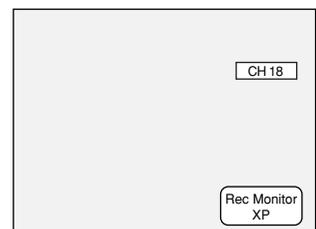
You cannot check the recording sound with the Rec monitor function.

The picture in the Rec monitor will be delayed than the sound. And the sound you will hear in the Rec monitor mode is not the same as recorded to be.

1

While the DVD recorder is in STOP, REC, or REC pause with a DVD disc to record inserted, press REC MONITOR button.

The TV program will be on the screen in the recording picture quality with the recording speed you have selected.



One-touch timer recording

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 recording finishes the recorder automatically goes into standby.

1

Select a desired channel to record using CH ▲ / ▼ buttons or number buttons.

2

Press REC button on the remote control or the front panel, then press REC button repeatedly until a desired recording time (30 minutes to 4 hours) appears on the TV screen.

Recording will start.



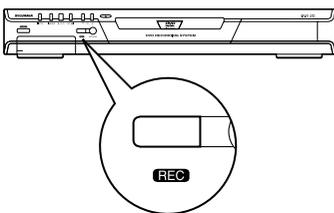
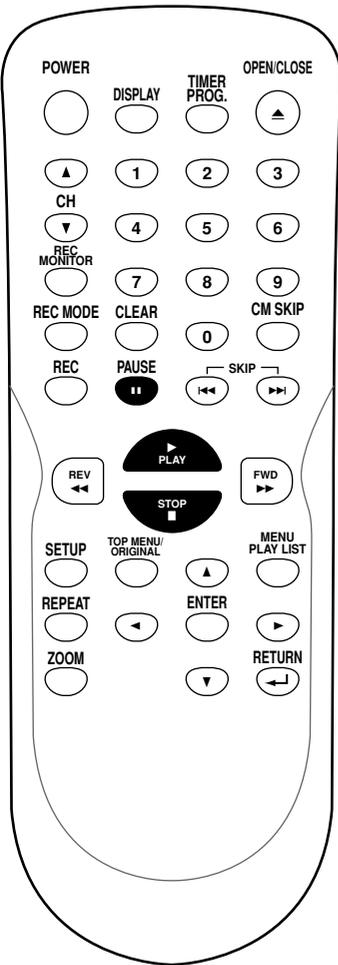
When reaches the specified time, the DVD recorder will be turned off automatically.

To cancel the one-touch timer recording within the specified time, press STOP ■ button.

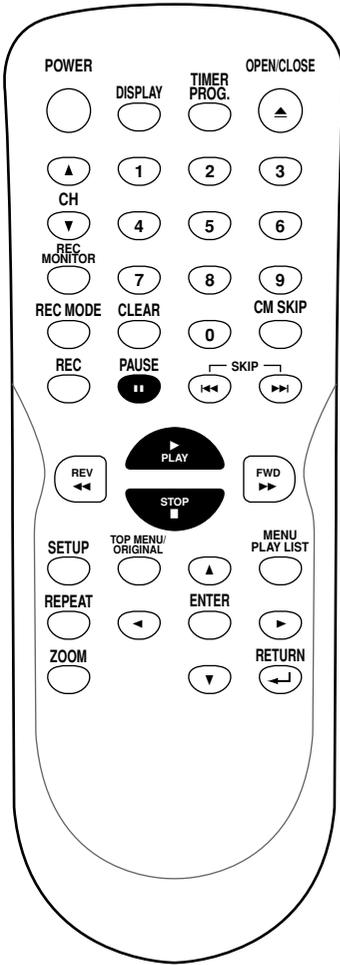
Note:

The DVD recorder will be turned off automatically under the conditions following.

- No space remained on the disc.
- When a power failure occurs.

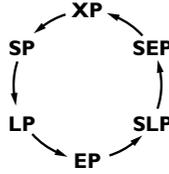


Recording



If you want to change the recording speed, press **REC SPEED** button repeatedly.

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



2

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

Finalizing the discs

DVD-RW **DVD-R**

You will need to finalize the discs recorded in Video mode to play in other DVD players. Finalizing discs in Video mode automatically creates title menus.

Note:

Once you have finalized a disc recorded in Video mode, you cannot edit or record anything else on that disc.

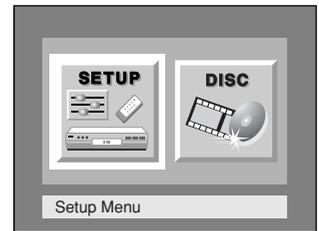
A VR mode disc can still be recorded and edited on this recorder even after finalizing.

Video mode:

1

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

Screen:

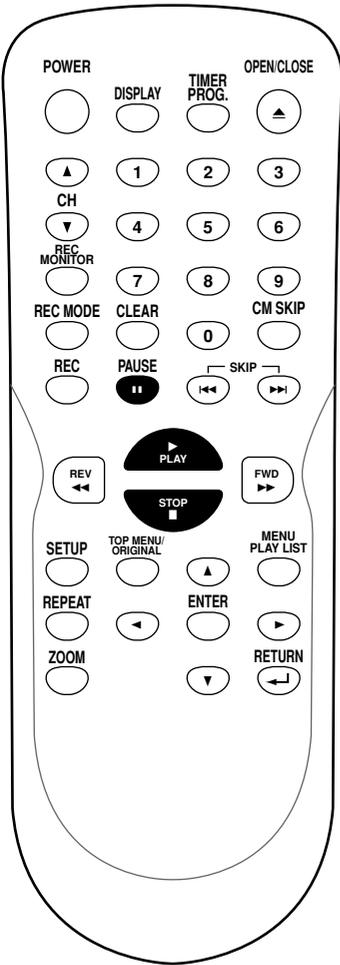


2

Select **“DISC”** using **◀/▶** buttons, then press **ENTER** button.

DISC menu will appear.

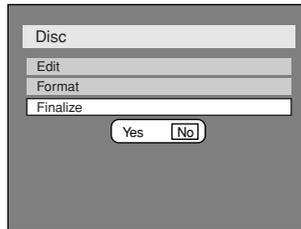




3

Select “Finalize” using ▲ / ▼ buttons, then press ENTER button.

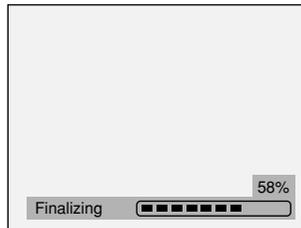
Option window will appear.



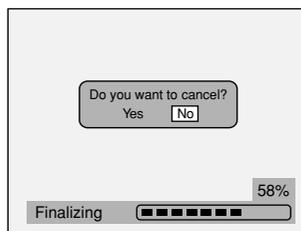
4

Select “Yes” using ◀ / ▶ buttons, then press ENTER button.

Finalizing will start.



To cancel finalizing, press STOP ■ button.



Select “Yes,” then press ENTER button.

Finalizing is cancelled, then the DVD recorder will be in stop mode.

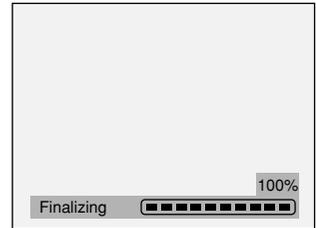
Note:

If Ⓞ appear when pressing STOP button, you can not cancel finalizing because the finalizing has been in certain progress.

When selecting “No” and press ENTER or RETURN button, finalizing will be continued.

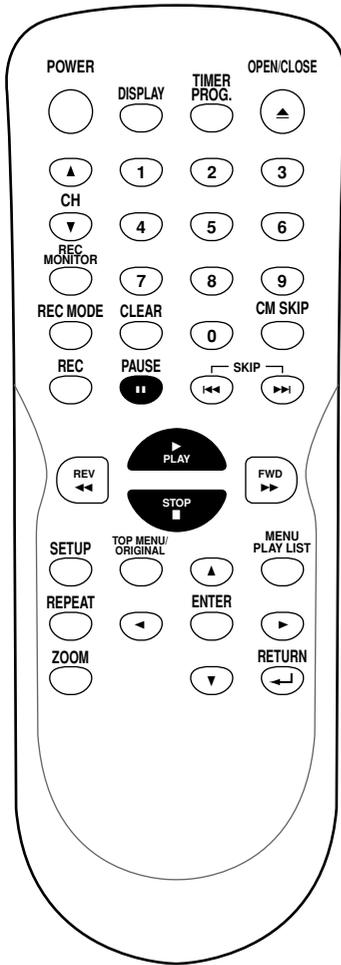
5

Finalizing is complete.



Press SETUP button to exit DISC menu.

Recording

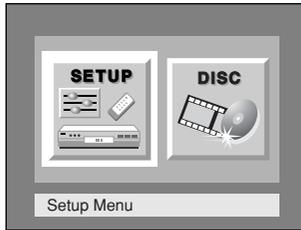


VR mode:

1

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

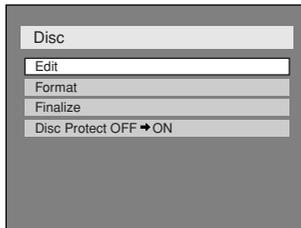
Screen:



2

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

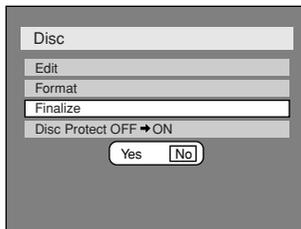
DISC menu will appear.



3

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

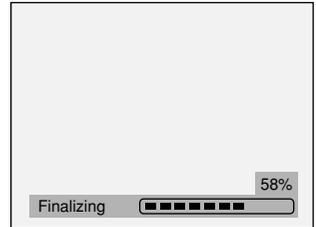
Option window will appear.



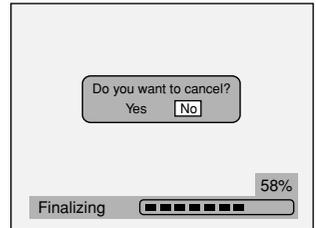
4

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

Finalizing will start.



To cancel finalizing, press **STOP** button.



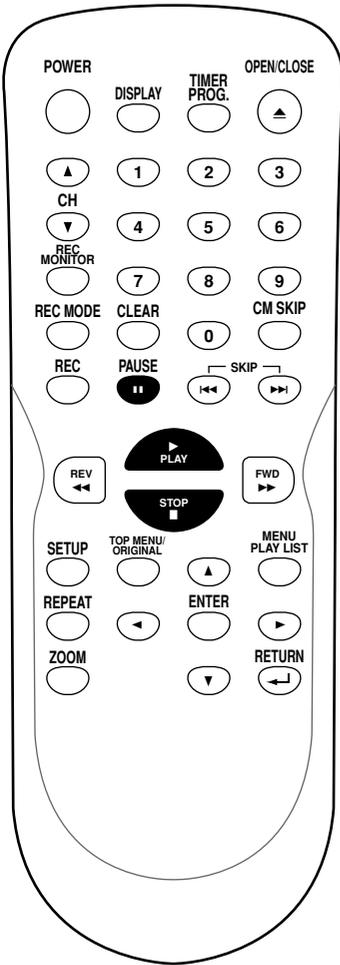
Select **"Yes,"** then press **ENTER** button.

Finalizing is cancelled, then the DVD recorder will be in stop mode.

Note:

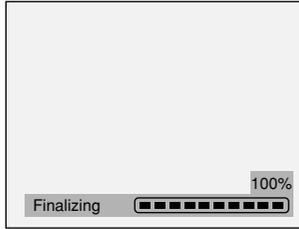
If  appear when pressing **STOP** button, you can not cancel finalizing because the finalizing has been in certain progress.

When selecting **"No"** and press **ENTER** or **RETURN** button, finalizing will be continued.



5

Finalizing is complete.



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

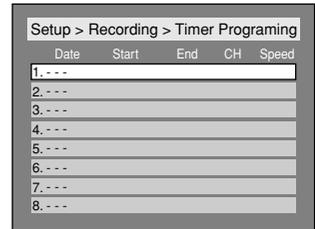
Timer recording

DVD-RW **DVD-R**

You can program the unit to record up to 8 programs, up to a year in advance. Daily or weekly program recordings are also available.

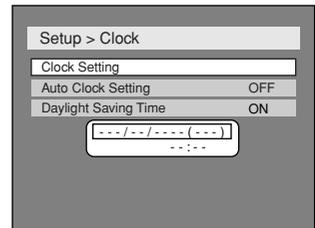
1

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



If you have not made the clock setting yet:

A clock setting window will appear after pressing **TIMER PROG.** button.

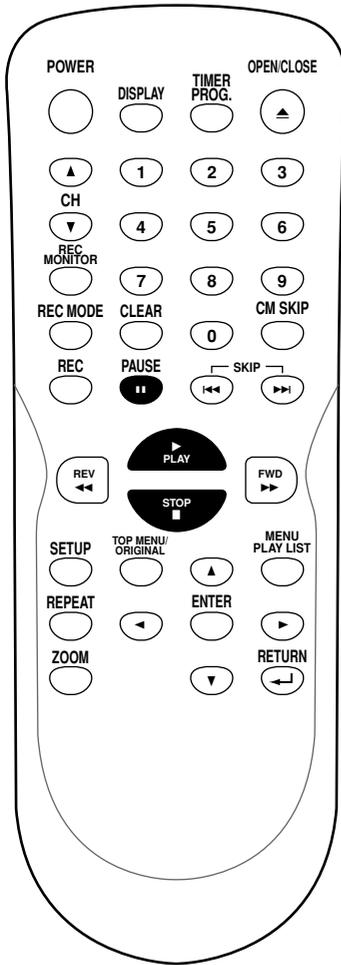


Be sure to set the clock following step 4 through step 10 in "Initial setting: Clock" on page 25 and 26 before making a timer program.

2

Enter the necessary information for timer programming using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

Recording



▲ / ▼ buttons:

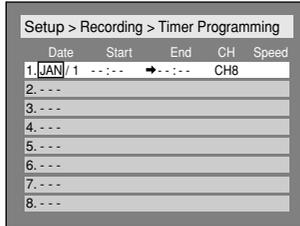
change the setting at the current cursor position.

◀ / ▶ buttons:

move the cursor to the left and the right.

Date:

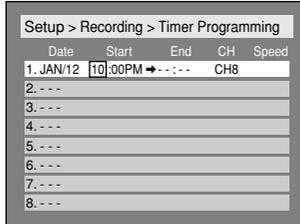
Enter the date.



When entering “Date”, you can select a daily or weekly programming.

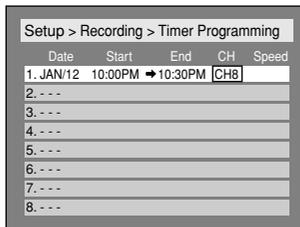
Start / End:

Enter the time to start and to end.



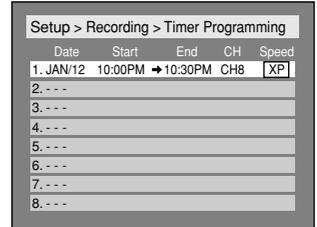
CH:

Select the channel to record. You can select a channel among those stored in the DVD recorder with the channel presetting, L1, and L2 (Video IN).



Speed:

Select a recording speed among XP, SP, LP, EP, SLP, and SEP. Refer to page XX “Recording speed.”



3

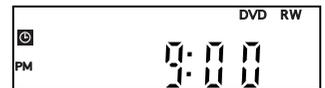
Press ENTER button when all information required is entered.

Your program setting will be stored.

4

Press POWER button to turn the DVD recorder off.

Ⓜ (Timer icon) will appear on the front display.

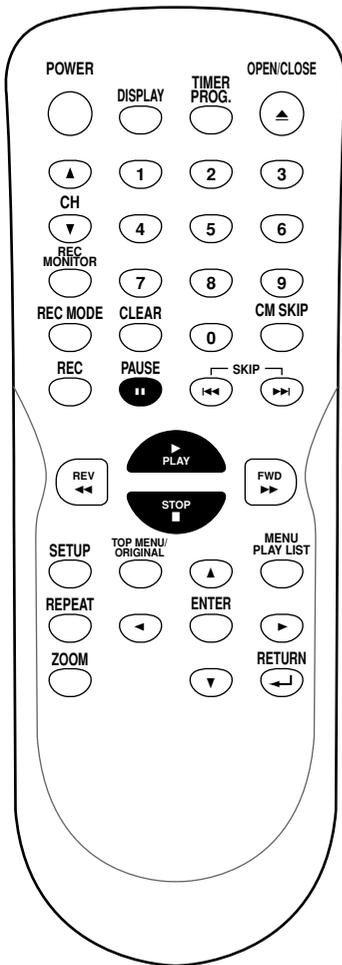


The DVD recorder will be turned on automatically 2 minutes in advance of the recording time to start and waits to start. Then the recording will start at the recording time you set.

Note:

To stop the timer recording in proceed, press STOP ■ button on the front panel. STOP ■ button on the remote control is not effective.

Neither POWER button nor OPEN/CLOSE button is effective.



Checking the information on the timer programming during the timer recording

DVD-RW **DVD-R**

You are allowed to know the information on the timer programming during the timer recording.

1

During the timer recording, press **TIMER PROG.** button. Timer Programming list will appear.

Setup > Recording > Timer Programming				
Date	Start	End	CH	Speed
1. JAN/12	10:00PM	→10:30PM	CH8	XP
2. ---				
3. ---				
4. ---				
5. ---				
6. ---				
7. ---				
8. ---				

2

Check the end time on the list.

3

To exit the timer programming list, press **TIMER PROG.** button again after you check the information.

The priority of overlapped settings

DVD-RW DVD-R

The recorder records the programs according to priority if the timer settings overlap. The timer setting set previously has priority.

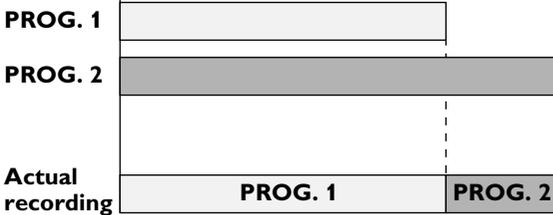
If the timer settings overlap, the program that has priority will be recorded. A timer recording of lower priority will be canceled, start from the middle, or stop on the way.

Check the overlapped timer settings and change the priority if necessary.

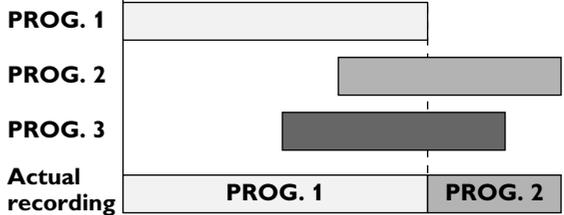
When the starting time is same:

A smaller program number PROG. 1 has priority.

ex.1

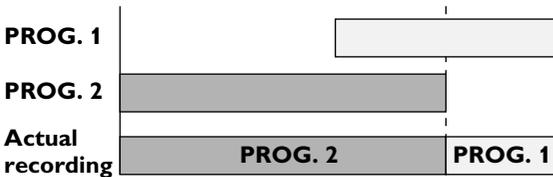


ex.2



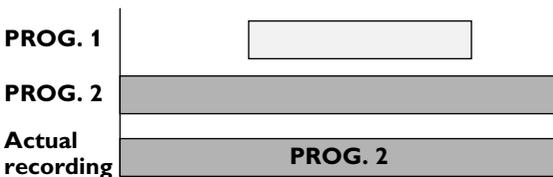
When the recording time is partially overlapped:

PROG. 1 will start after PROG. 2 is complete to be recorded.



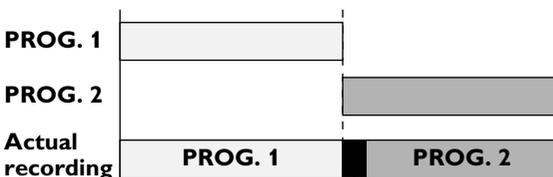
When the recording time is entirely overlapped:

PROG. 1 will not be recorded.

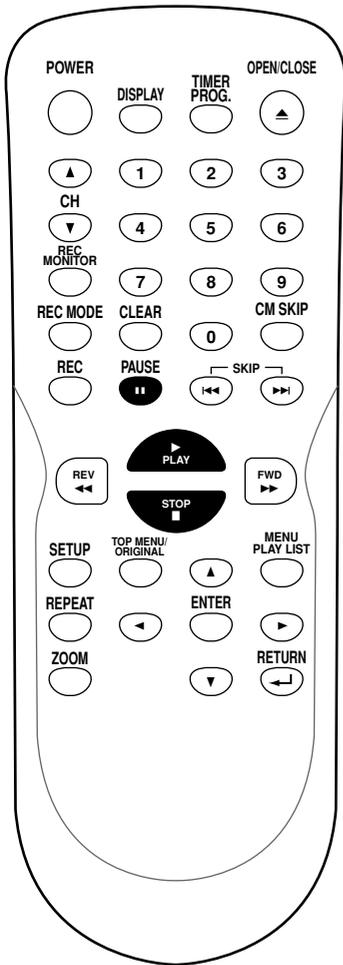


When the end time of one and the starting time of another are same:

The first 30 minutes of the following one will be cut off.



The first 30 minutes will be cut off.



Setting a disc to protect

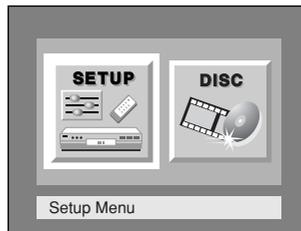
DVD-RW VR

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

1

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

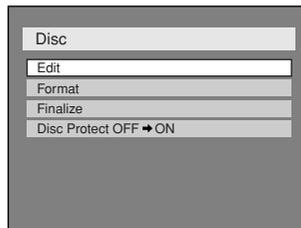
Screen:



2

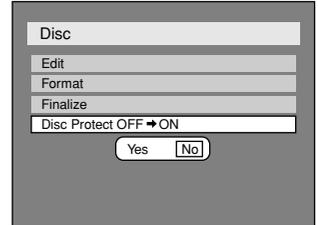
Select **"DISC"** using **◀/▶** buttons, then press **ENTER** button.

DISC menu will appear.



3

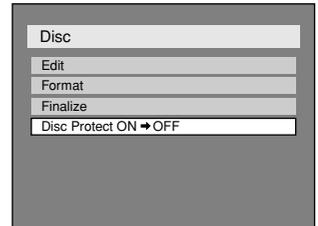
Select **"Disc Protect OFF → ON"** using **▲ / ▼** buttons, then press **ENTER** button. Option window will appear.



4

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

A disc will be protected.



5

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

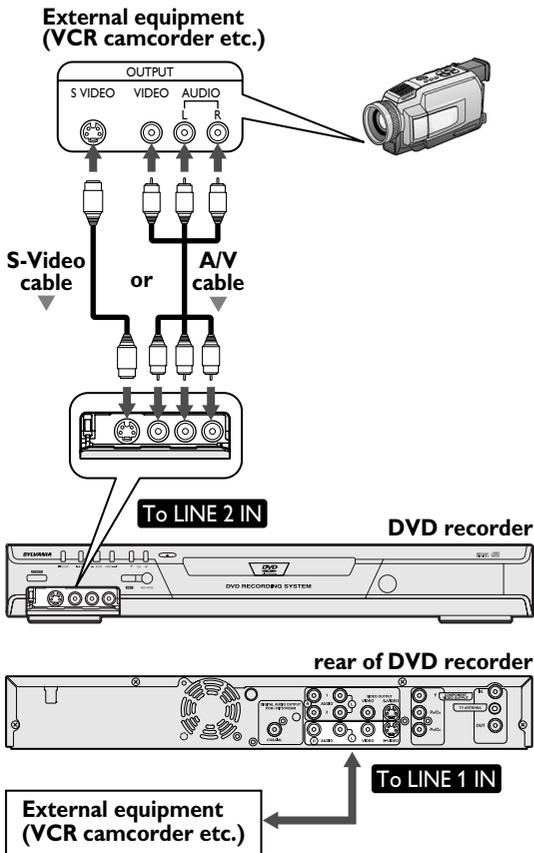
Recording from an external component

DVD-RW DVD-R

You can record from an external component, such as a camcorder or VCR, connected to either LINE1 or LINE2 for external inputs.

Before attempting to record from an external component:

1. Connect the component from which you want to record properly to the DVD recorder.

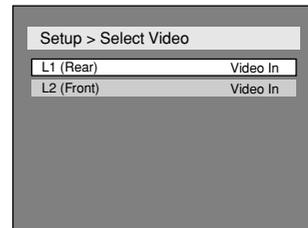


◀ : signal flow

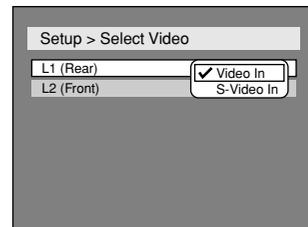
2. Press **SETUP** button to display **SETUP/DISC** menu.

3. Select **SETUP**, then press **ENTER** button.

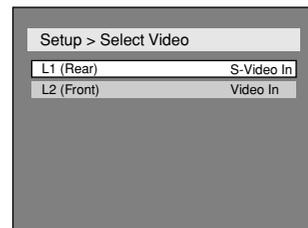
4. Select "Select Video," then press **ENTER** button.



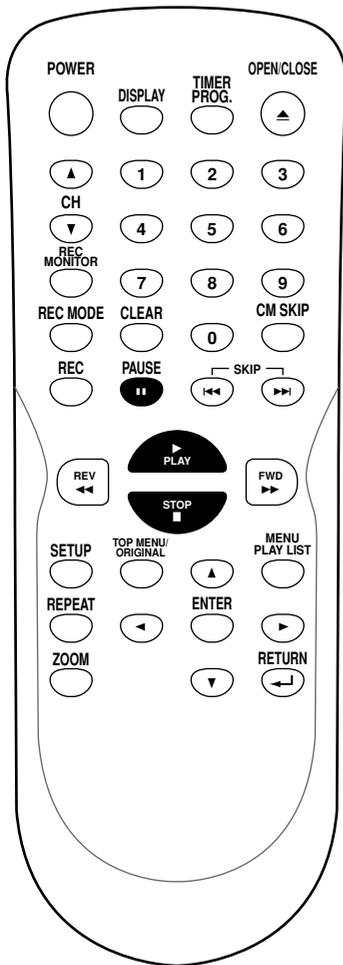
5. Select an input line among **L1** and **L2**.



6. Select the input jack type to connect, then press **ENTER** button.



Now you are ready to start recording from external component.



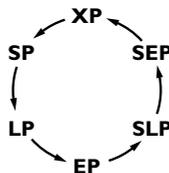
1
 Connect the component from which you want to record properly to the DVD recorder.

2
 Turn the TV and the DVD recorder on, and be sure to select the input of the TV to which the DVD recorder is connected.

3
 Press **OPEN/CLOSE ▲** button to open the disc tray, then place the disc to record properly.

4
 Select the input of the DVD recorder which the component to record from is connected.

5
 Select a recording mode using **REC SPEED** button. Refer to page XX "Recording speed."



6
 Press **PAUSE II** button to pause recording.

7
 Load the cassette tape to the component to record from, then set it in pause.

8
 Press **PAUSE II** button and **REC** button to set the DVD recorder in REC pause at the same time. Recording will start.

9
 Press **STOP ■** button on the DVD recorder to stop recording.

Playing discs

Information on DVD play

Before you attempt to play DVD discs, read the following information.

Playable discs

This DVD recorder is compatible to play the following discs.

To play a DVD, make it meets the requirements for Region Codes and Color Systems as described below. Discs that have the following logos will play on the DVD recorder. Other Disc types are not guaranteed to play.

Disc	Logo
DVD VIDEO	
DVD-RW (VIDEO/R FORMAT)	
DVD-R (VIDEO FORMAT)	
CD-DA (AUDIO CD)	
CD-R (CD-DA FORMAT)	
CD-RW (CD-DA FORMAT)	

Region codes

This System has a Region One (1) the DVD recorder. DVDs must be labeled for ALL regions or for Region 1 in order to play on the the DVD recorder. You cannot play DVDs that are labeled for other regions. Look for the symbols below on your DVDs. If these region symbols do not appear on your DVD, you cannot play the DVD in this the DVD recorder.



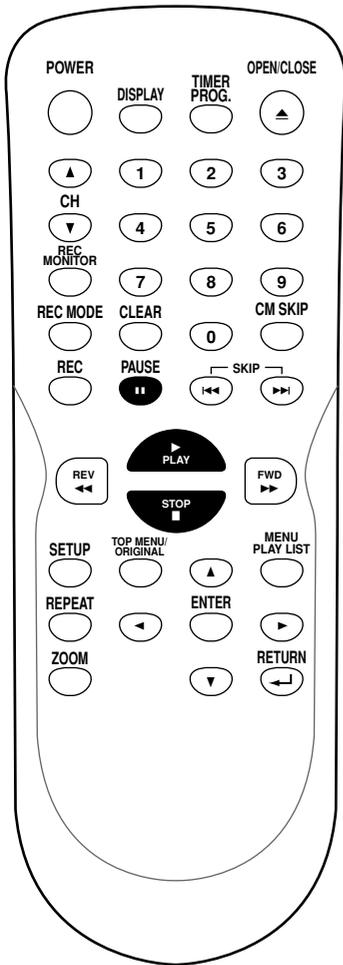
The number inside the globe refers to region of the world. Region 1 represents the United States, Canada, upper regions of North America, Bermuda, the U.S.Virgin Islands, and small regions near Australia.

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

Color systems

DVDs are recorded in different color systems throughout the world. The most common color systems are NTSC (which is used primarily in the United States and North America), PAL, and SECAM.

This DVD Player uses NTSC, so DVDs you play must be recorded in the NTSC system. You cannot play DVDs recorded in other formats. The color system of the DVD may on the DVD or on the Disc case.



Basic Play

DVD-RW DVD-R

1

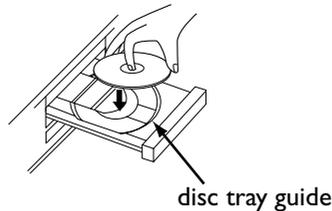
Press **POWER** button on the remote control or the front panel of the DVD recorder. When you are playing a DVD, turn the TV on and be sure to select the input to which the DVD recorder is connected.

2

Press **OPEN/CLOSE** button 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.

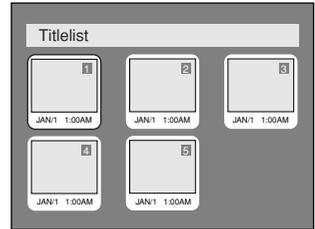


4

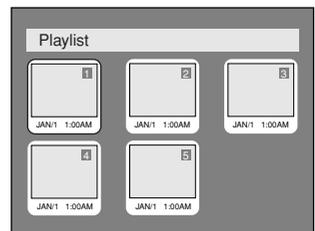
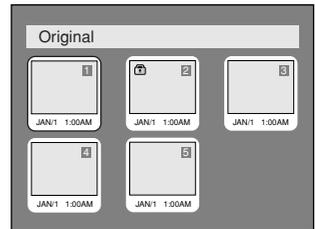
Press **TOP MENU/ORIGINAL** button to display the title menu.

You can change “Original” or “Playlist” of VR mode using **MENU PLAY LIST**.

Video mode:

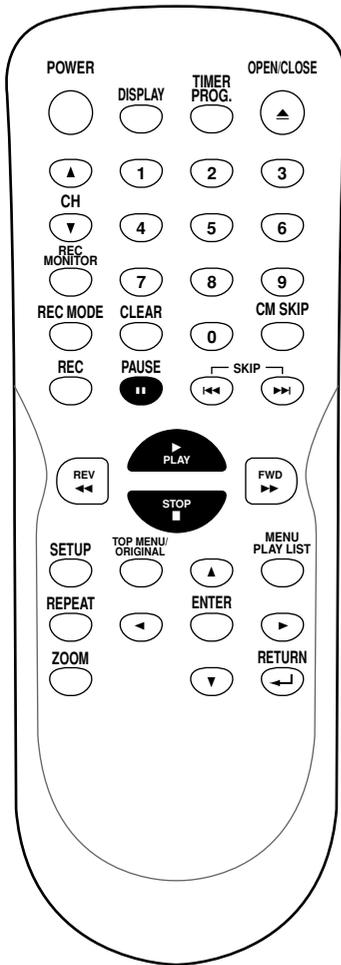


VR mode:



5

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button. Playing will start.



6

Press **STOP ■** button to stop play.

Note:

You can resume play from where you stopped playing the disc. (Resume play)

Refer to page XX for details about resume play.

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

DVD-V **CD**

1

Press **POWER** button on the remote control or the front panel of the DVD recorder. When you are playing a DVD, turn the TV on and be sure to select the input to which the DVD recorder is connected.

2

Press **OPEN/CLOSE ▲** button 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.

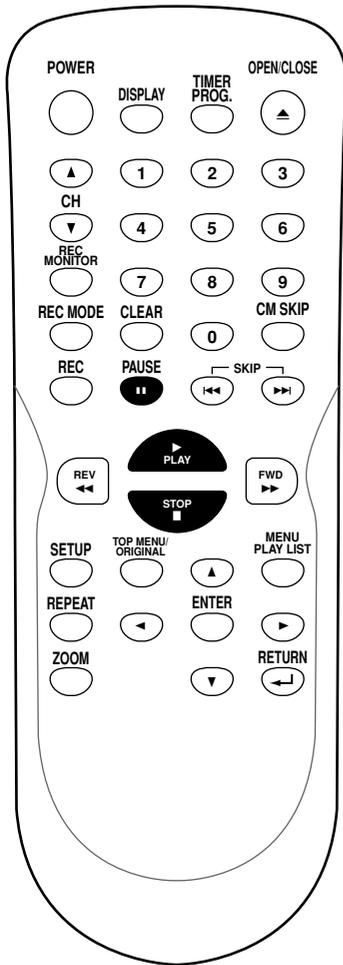
4

Press **PLAY ►** button to start playing. Playing will start.

If you are playing a DVD-Video disc, a menu may appear. Refer to page XX for details about a disc menu.

5

Press **STOP ■** button to stop playing.



Playing discs using the 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.

Sometimes these are displayed automatically when you start playback, otherwise only appear when you press MENU PLAY LIST button.

1

Press MENU PLAY LIST button.

The DVD main menu will appear.
Screen:



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.

MENU PLAY LIST button: Displays a DVD disc menu – this varies with the disc and may be the same as the ‘Top menu.’

RETURN button: Returns to the previously displayed menu screen.

▲ / ▼ / ◀ / ▶ buttons: Moves the cursor around screen.

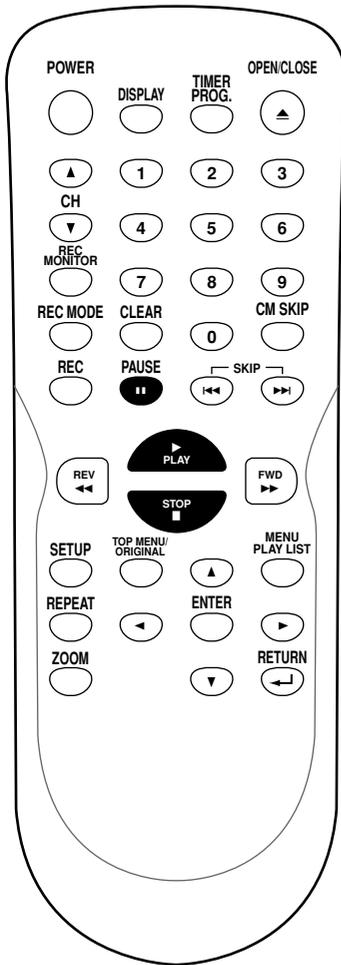
Enter button: Selects the currently highlighted menu option.

Number buttons: Selects a numbered menu option (some discs only). (Press ENTER after).

3

Press MENU PLAY LIST button to exit the menu.

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



Playing discs using the title menu

DVD-V

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

1

Press **TOP MENU** button.

The title menu will appear.

Screen:



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.

Play will begin at the title you selected.

TOP MENU button:

Displays the 'Top menu' of a DVD disc – this varies with the disc.

RETURN button:

Returns to the previously displayed menu screen.

▲ / ▼ / ◀ / ▶ buttons:

Moves the cursor around screen.

Enter button:

Selects the currently highlighted menu option.

Number buttons:

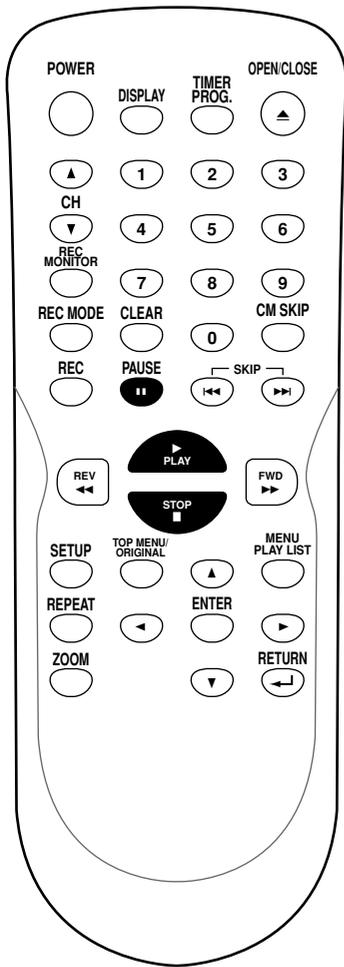
Selects a numbered menu option (some discs only). (Press **ENTER** after).

3

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

Note:

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



Resume play

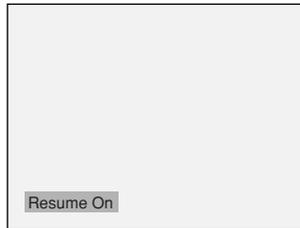
You can resume play from where you stopped playing the disc last.

1

During play, press STOP ■ button.

The resume message will appear.

Screen:



2

Press PLAY ► button.

In a few seconds, play will resume from the point at which it stopped last. You can resume play at the same point even if you turn off the DVD recorder.

To cancel the resume play and start playing the disc from the beginning, press STOP ■ button the second time while the play is stopped.

Step by step play-back

1

During play, press PAUSE || button.

Play will pause and sound will be muted.



2

Press SKIP ►► button repeatedly.

The play will advance one frame (or step) at a time you press the button with the sound muted.

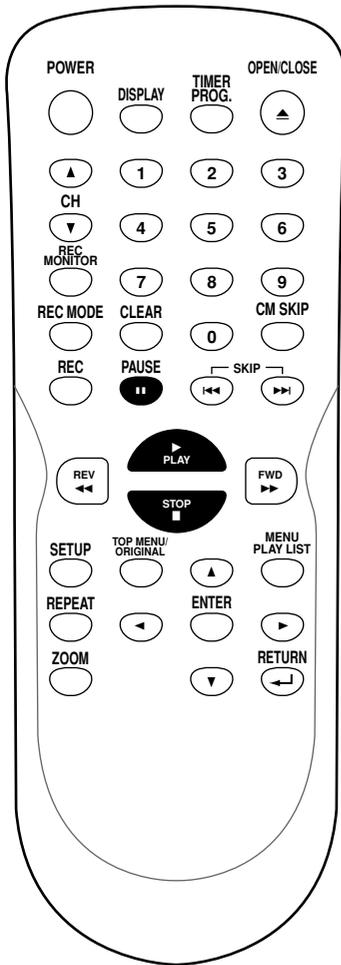
To play step by step backward:

Press SKIP ◀◀ button repeatedly.

Every time you press the button, the play will go backward.

3

Press PLAY ► button to resume play.

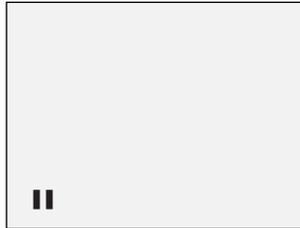


Pause

1

During play, press **PAUSE** **||** button.

Play will pause and sound will be muted.



2

Press **PLAY** **▶** button to resume play.

Repeat play

1

During play, press **REPEAT** button.

Repeat menu will appear.

Screen for DVD:



Screen for CD:



2

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

The selected repeat play will start.

Title:

The current title will be played repeatedly. (DVD only)

Chapter:

The current chapter will be played repeatedly. (DVD only)

All:

The current disc will be played repeatedly. (except DVD Video)

Zoom

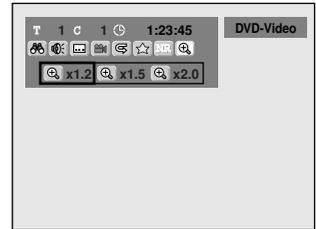
DVD

1

During play, press **ZOOM** button.

Zoom menu will appear.

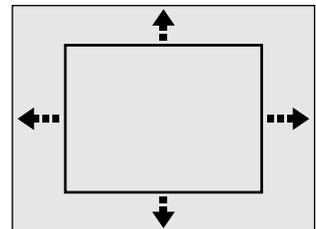
Screen:



2

Select a desired zoom factor to zoom using **◀ / ▶** buttons, then press **ENTER** button.

The zoom area will be displayed.



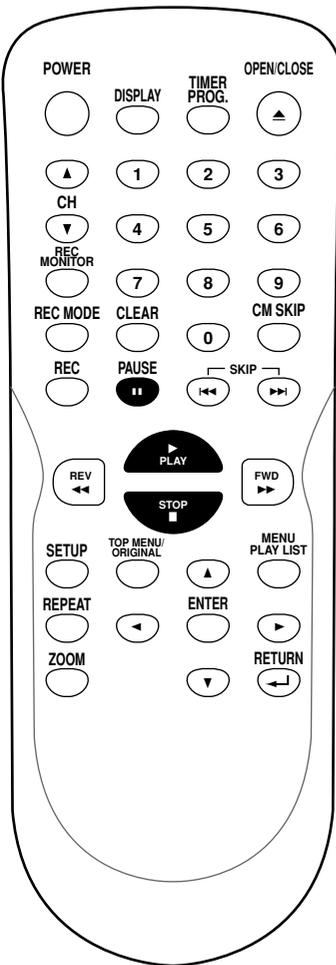
Note:

When selecting a smaller factor than the current, the zoom area will not be displayed.

3

Select a desired zoom position using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

The zoom play will start.



A-B:

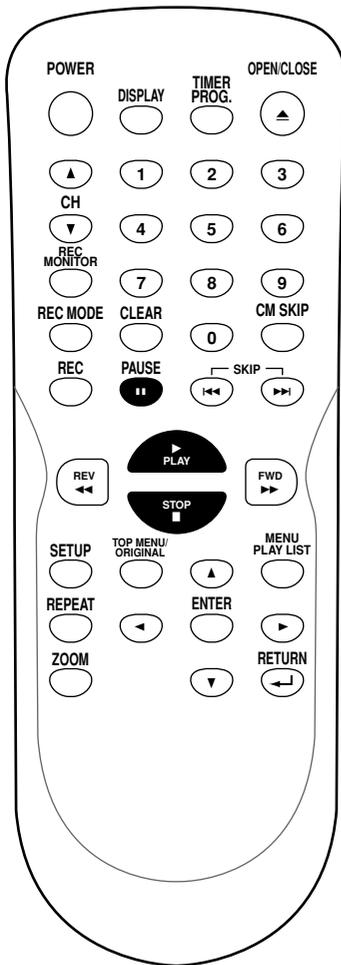
When pressing **ENTER** button while A-B is highlighted, the starting point (A) will be decided.

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

The A-B point will be played repeatedly.

Track:

The current track will be played repeatedly. (CD only)



Title/Chapter search



Using SKIP ◀◀ / ▶▶ buttons

1

During play, press **SKIP ▶▶** button to skip the current title or chapter and move to the next.

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

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

Using DISPLAY button

1

During play, press **DISPLAY** button.

The display menu will appear.

Screen:



2

Select icon using ◀ / ▶ button, 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.

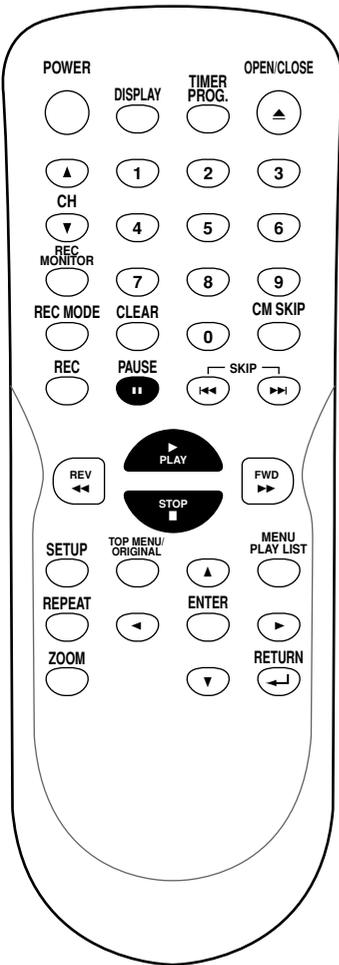
Title search will start.

Chapter:

To move to 'C' for chapter, press ▶ button.

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

Chapter search will start.



Track search

CD

Using SKIP ◀◀ / ▶▶ buttons

1

During play, press **SKIP ▶▶** button to skip the current track and move to the next. The track will move forward by one at a time.

To go back to the previous track, press **SKIP ◀◀** button. The track will move backward by one at a time.

Using DISPLAY button

1

During play, press **DISPLAY** button. The display menu will appear.

Screen:



2

Select **⌂** icon using ◀ / ▶ button, 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 play, press **DISPLAY** button. The display menu will appear.

Screen:

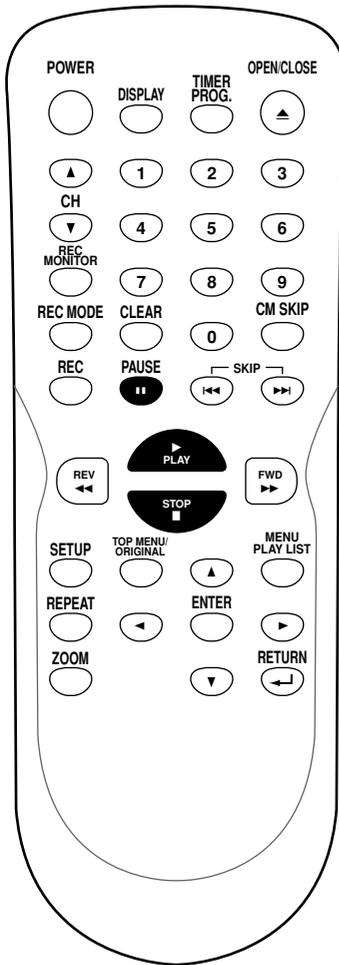


2

Select **⌂** icon using ◀ / ▶ button, then press **ENTER** button. 'T' for 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.



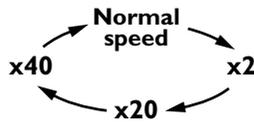
Fast forward / Fast reverse search

1

During play, press **FWD ►►** button to search in fast forward.

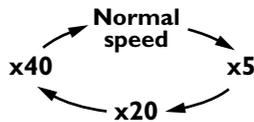
To change the speed, press FWD ►► button repeatedly.

Every time you press FWD ►► button, search speed will be changed as follows.



To search in fast reverse, press **REV ◄◄** button.

Every time you press REV ◄◄ button, search speed will be changed as follows.



To return to the normal play, press **PLAY ►** button.

Slow forward / Slow reverse play

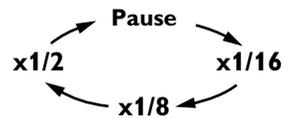
1

During play, press **PAUSE ■■** button, then press **FWD ►►** button.

Play in slow forward will start.

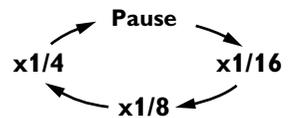
To change the speed, press FWD ►► button repeatedly.

Every time you press FWD ►► button, search speed will be changed as follows.

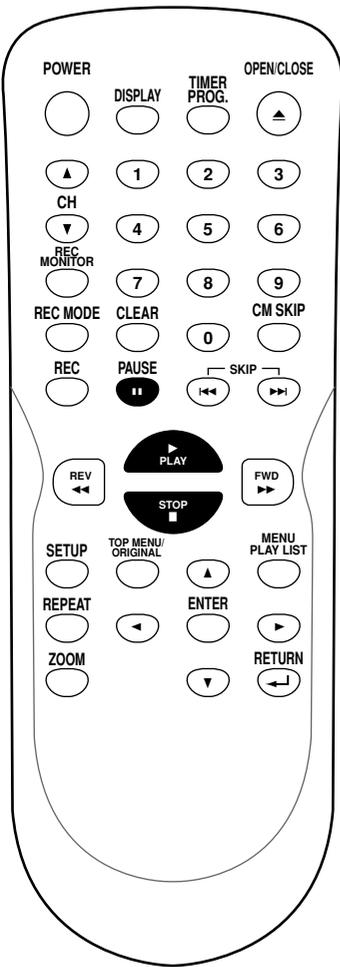


To play in slow reverse, press **REV ◄◄**.

Every time you press REV ◄◄ button, search speed will be changed as follows.



To return to the normal play, press **PLAY ►** button.



Skipping TV commercials during play

You can skip TV commercials by pressing CM SKIP button, so that you can enjoy the recorded programs without interrupting.

1

During play, press CM SKIP button.

Normal play will start at 30 seconds ahead from the point you press CM SKIP button.

Every time you press CM SKIP button, searching point will be extended by 30 second.

You can press up to 6 times (180 seconds).

Selecting the format of audio and video

You can select a audio and video format as you prefer depending on the contents of the disc you are playing.

Switching audio soundtrack

DVD-V **DVD-RW Video**

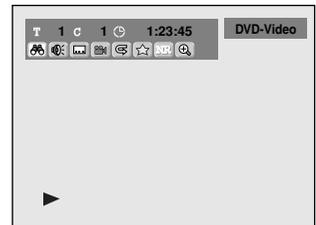
When playing a DVD-Video disc recorded with two or more soundtracks (these are often in different languages), you can switch between them anytime during playback.

1

During play, press DISPLAY button.

The display menu will appear.

Screen:



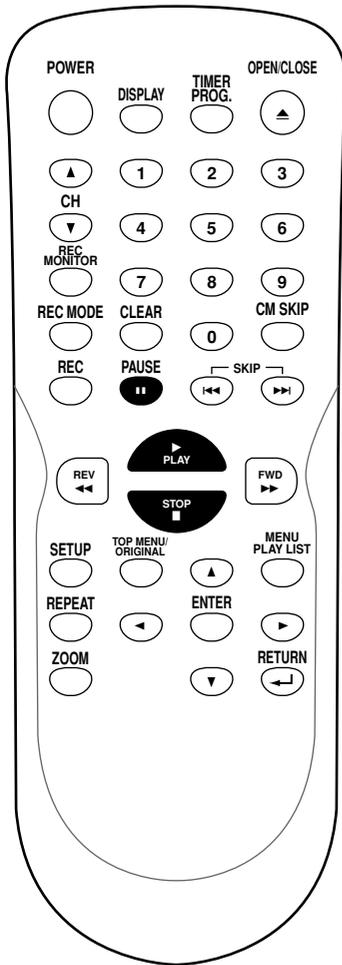
2

Select  icon using  /  button, then press ENTER button.

Audio menu will appear.



Playing discs



3

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

Audio soundtrack will switch.

Note:

Some discs will only allow you to change the soundtrack from the disc's menu. Press **TOP MENU/ ORIGINAL** button or **MENU PLAYLIST** button to display this.

Caution:

Some discs feature both Dolby Digital and DTS soundtracks. There is no audio output when DTS is selected.

DVD-RW VR

On DVD-RW discs recorded in VR mode that have both a main and a SAP (Secondary Audio Program) audio channel, you can switch between main(R), SAP(L), or a mix of both(L/R).

1

During play, press **DISPLAY** button.

The display menu will appear.

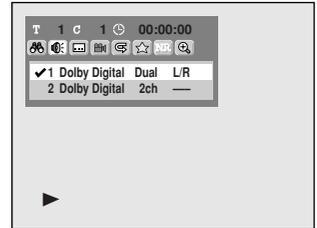
Screen:



2

Select  icon using **◀ / ▶** button, then press **ENTER** button.

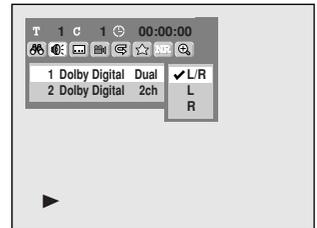
Audio menu will appear.



3

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

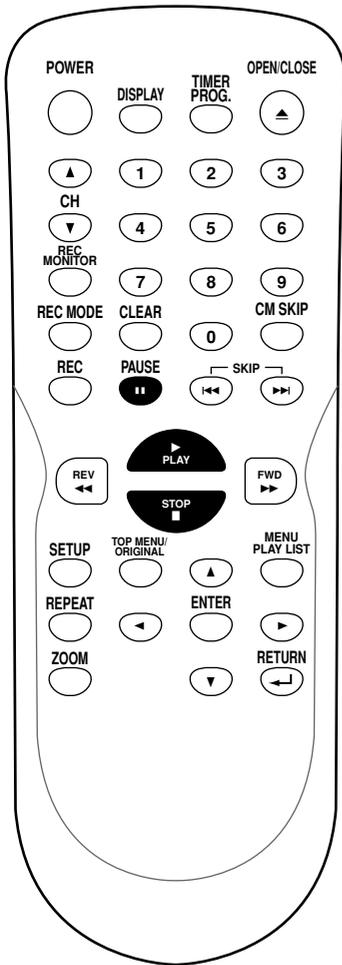
Audio channel menu will appear.



4

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

Audio channel will switch.



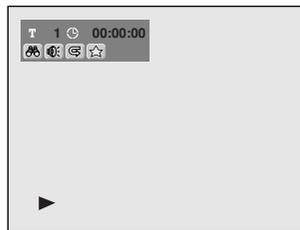
CD

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

1

During play, press DISPLAY button.

The display menu will appear.
Screen:



2

Select icon using **◀ / ▶** button, then press **ENTER** button.

Audio menu will appear.

3

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

Audio channel will switch.

Switching subtitles

DVD-V DVD-RW VR

Many DVD Video discs have subtitles in one or more languages – the disc box will usually tell you which subtitle languages are available. You can switch subtitle languages anytime during playback.

1

During play, press DISPLAY button.

The display menu will appear.
Screen:



2

Select icon using **◀ / ▶** button, then press **ENTER** button.

Subtitle menu will appear.



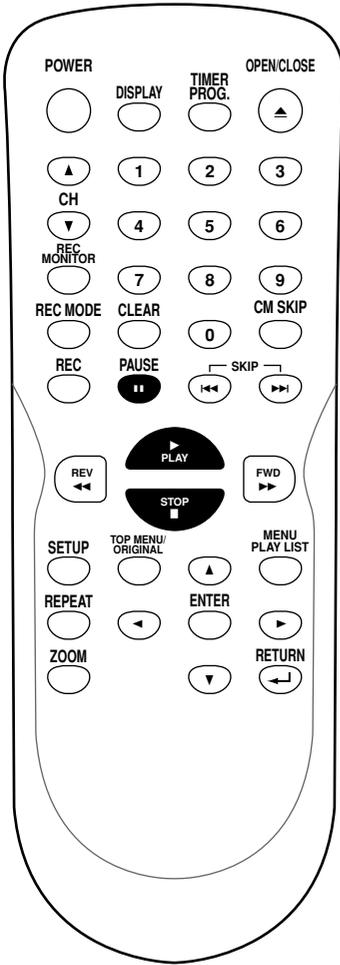
3

Select a desired subtitle language using **▲ / ▼** buttons, then press **ENTER** button.

Subtitle will be displayed in the selected language.

When selecting “OFF,” subtitle will be disappeared.

Playing discs



Note:

Some discs will only allow you to change the subtitle from the disc menu. Press TOP MENU/ ORIGINAL or MENU button PLAYLIST button to display the disc menu.

Switching camera angles

DVD-V

Some DVD Video discs feature scenes shot from two or more angles—check the disc box for details: it should be marked with a angle icon if it contains multi-angle scenes.

1

During play, press **DISPLAY** button.

The display menu will appear.

Screen:



2

Select  icon using **◀ / ▶** button, then press **ENTER** button.

Angle will switch.

Reducing block noise

DVD-V

1

During play, press **DISPLAY** button.

The display menu will appear.

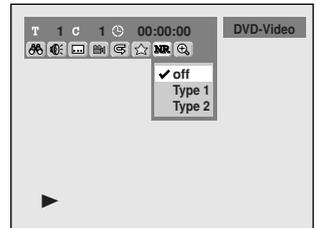
Screen:



2

Select **NR** icon using **◀ / ▶** button, then press **ENTER** button.

NR menu will appear.



3

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

Your setting will be activated.

Information on disc editing

You can make the discs with editing functions following of the DVD recorder as you prefer.

Editing discs with Video mode

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

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

Note:

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

Editing discs with VR mode

For discs with VR mode, you can edit from “Original” menu or “Playlist” menu, which is created from the original.

Editing original titles

Followings are the items you can edit the original.

- Deleting titles (Refer to page XX)
- Deleting parts of titles (Refer to page XX)
- Putting names on titles (Refer to page XX)
- Setting or clearing chapter markers (Refer to page XX)
- Setting pictures for thumbnails (Refer to page XX)
- Setting titles to protect (Refer to page XX)

Note:

Original titles once edited will not be remained as recorded originally. When you want to leave the original as it is, create the playlist to edit as you prefer. (Refer to page XX)

Editing playlists

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

Followings are the items you can edit with a playlist.

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

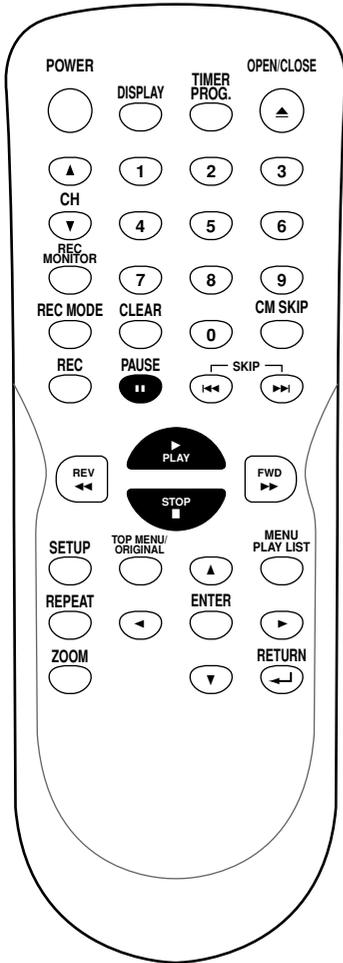
Editing DVD-R discs

Followings are the items you can edit DVD-R discs.

- Deleting titles (Refer to page XX)
- Putting names on titles (Refer to page XX)

Table for characters to enter

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



Editing discs

Be sure that once you edit original titles, they will not be remained as recorded originally. When you want to leave original titles as recorded originally for DVD-RW with VR mode, create a playlist first, then edit it as you prefer.

Followings are the ways to edit discs in each format DVD-R, which is always in Video mode, DVD-RW, which may be either in Video mode or VR mode.

DVD-RW Video

Deleting titles

You can delete titles which you do not need anymore.

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

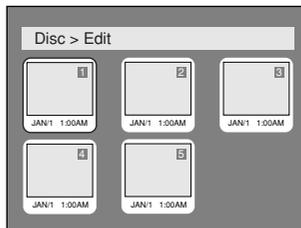
When the last title in the title list in Video mode is deleted, the disc space to record will be increased.

1

Select "Edit" from DISC menu using **▲ / ▼** buttons, then press **ENTER** button.

Titlelist will appear.

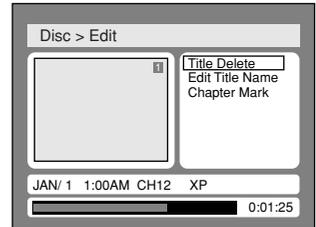
Screen:



2

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

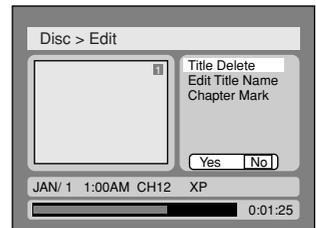
Edit menu will appear.



3

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

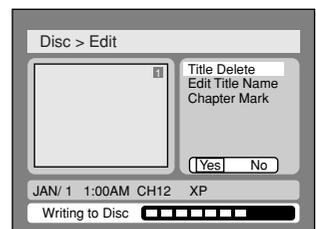
Option window will appear.



4

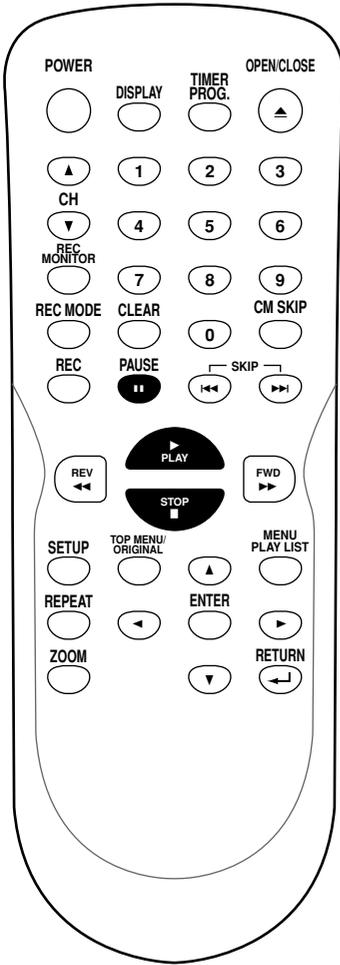
Select "Yes" using **◀ / ▶** buttons, then press **ENTER** button.

Title will be deleted.



5

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



Putting names on titles

You can put title names on the titles and change the names from this menu.

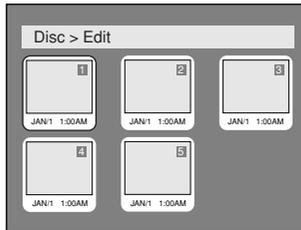
The names you put on the titles will be displayed on a titlelist.

1

Select “Edit” from DISC menu using **▲ / ▼** buttons, then press **ENTER** button.

Titlelist will appear.

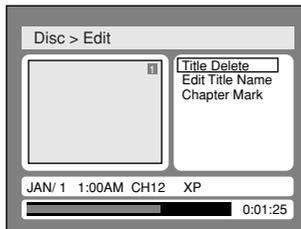
Screen:



2

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

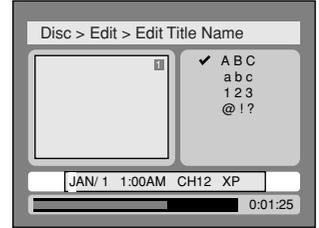
Edit menu will appear.



3

Select “Edit Title Name” using **▲ / ▼** buttons, then press **ENTER** button.

A window for entering a title name will appear.



4

Enter a title name using **▲ / ▼ / ◀ / ▶** buttons and number buttons as specified below.

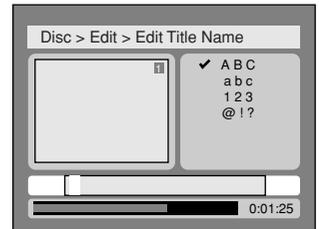
To delete letters, press **CLEAR** button.

Refer to page 62 “Table for characters to enter.”

<Example : when putting the name “News23”>

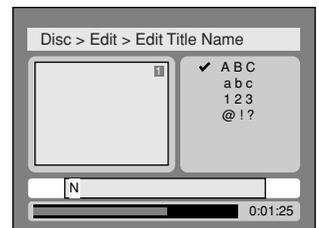
1.

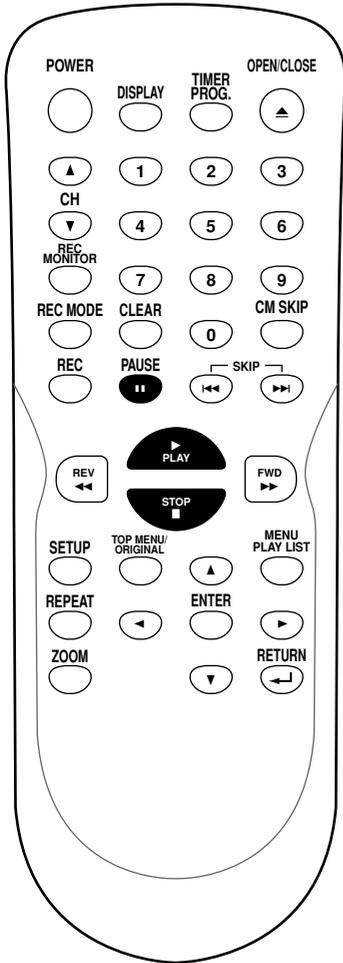
Select “ABC” using **▲ / ▼** buttons, then press **Enter** button.



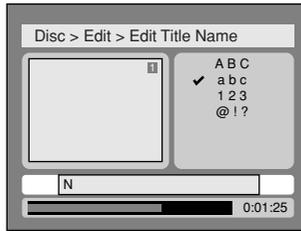
2.

Press **6** twice using number buttons.





3. Select “abc” using ▲ / ▼ buttons, then press Enter button.



4. Press 3 twice, 9 once and 7 four times using number buttons.



5. Select “123” using ▲ / ▼ buttons, then press Enter button.



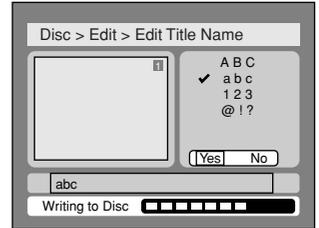
6. Press 2 and 3 using number buttons, then press Enter button.
Option window will appear.



5

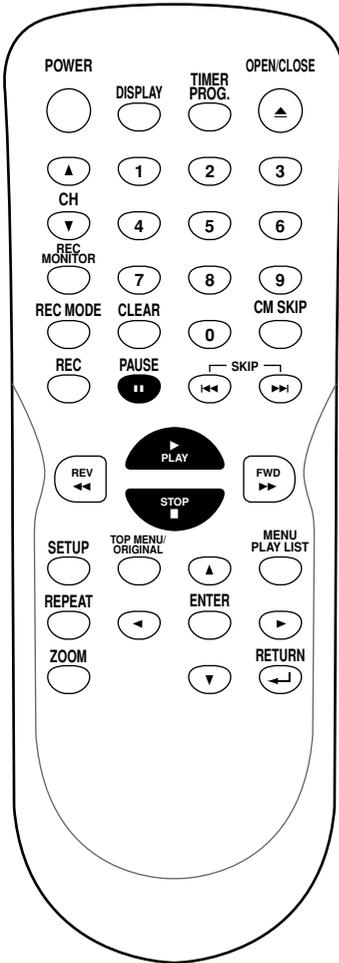
Select “Yes” using ◀ / ▶ buttons, then press ENTER button.

The name you entered will be activated for the title.



6

Press SETUP button to exit DISC menu.



Setting or clearing chapter markers

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

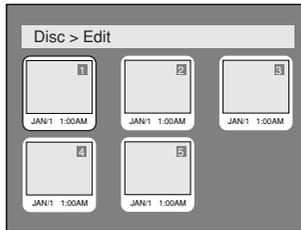
You can set chapter markers every at a specified time you selected among options for a title of more than 5 minutes.

1

Select "Edit" from DISC menu using **▲ / ▼** buttons, then press **ENTER** button.

Titlelist will appear.

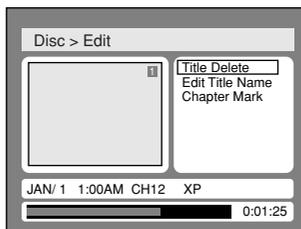
Screen:



2

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

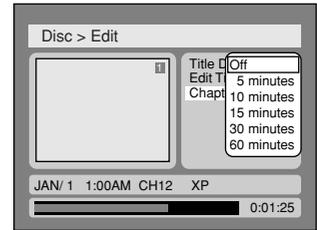
Edit menu will appear.



3

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

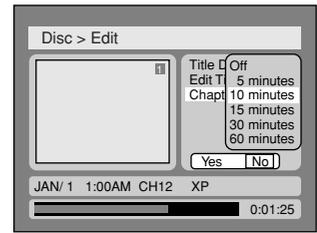
Option window will appear.



4

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

Option window will appear.



Note:

You cannot select a time for putting markers more than a length of a title.

5

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

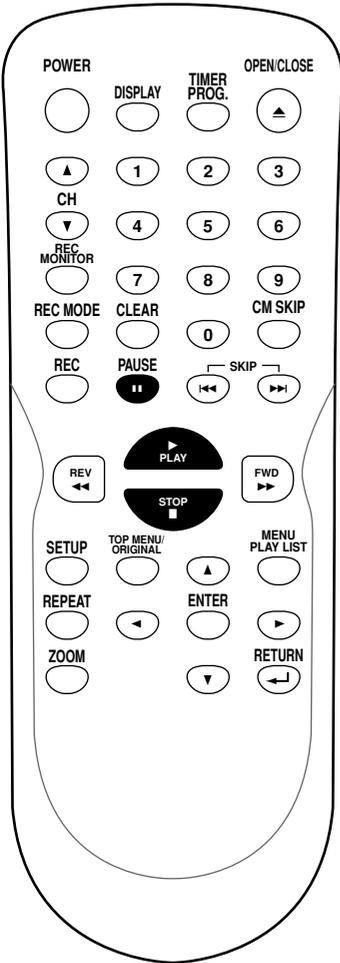
A chapter marker will be added.

Note:

A chapter marker may be delayed according to the recording content.

6

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



DVD-RW VR Original

Deleting titles

When a title is deleted from an original list in VR mode, the disc space to record will be increased. Be sure to know that the titles once deleted cannot be brought back to the disc.

1

Select "Edit" from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

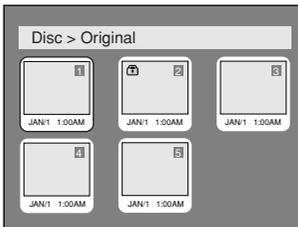
Screen:



2

Select "Original" using **◀ / ▶** buttons, then press **ENTER** button.

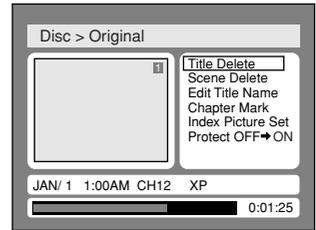
Original list will appear.



3

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

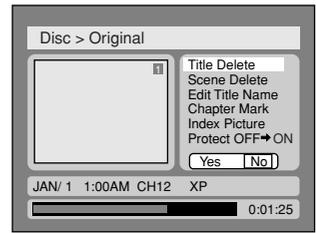
Original menu will appear.



4

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

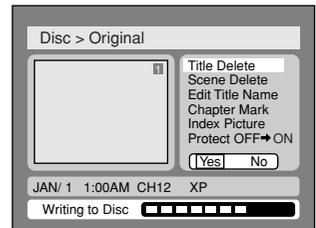
Option window will appear.



5

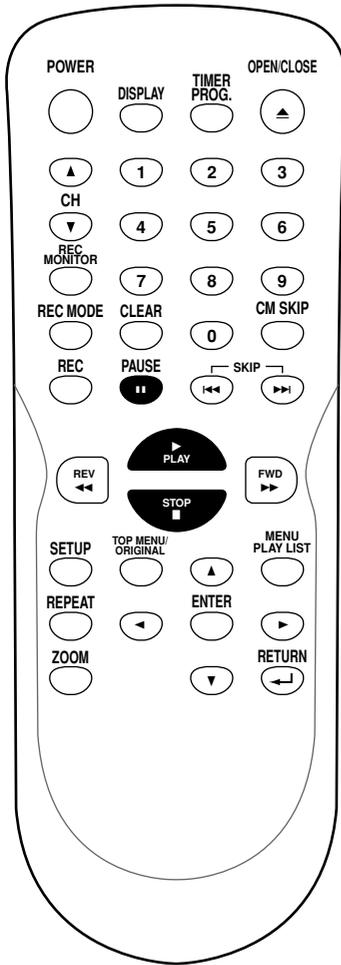
Select "Yes" using **◀ / ▶** buttons, then press **ENTER** button.

Title will be deleted.



6

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



Deleting parts of titles

You can delete a specified part of a title, then the disc space to record will be increased.

Be sure to know that the parts once deleted cannot be brought back to the disc.

1

Select “Edit” from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

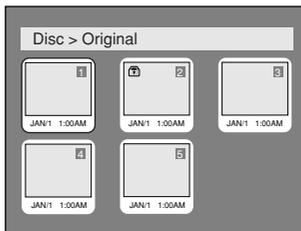
Screen:



2

Select “Original” using **◀ / ▶** buttons, then press **ENTER** button.

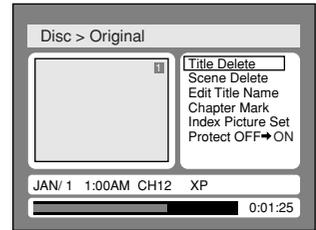
Original list will appear.



3

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

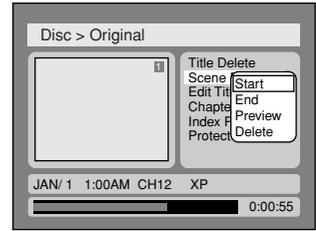
Original menu will appear.



4

Select “Scene Delete” using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



5

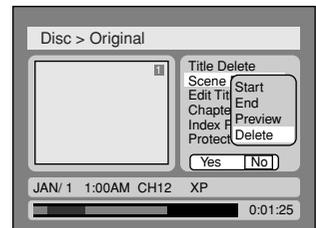
Press **ENTER** button to decide a start point, then press **ENTER** button to decide a end point.

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

6

Select “Delete” using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



Putting names on titles

You can put title names on the titles and change the names from this menu.

The names you put on the titles will be displayed on a titlelist.

1

Select **"Edit"** from **DISC** menu using **▲ / ▼** buttons, then press **ENTER** button.

Disc menu will appear.

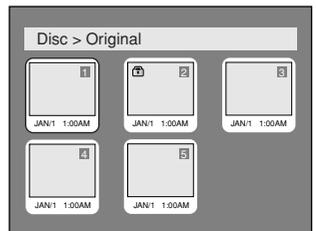
Screen:



2

Select **"Original"** using **◀ / ▶** buttons, then press **ENTER** button.

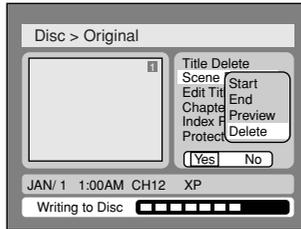
Original list will appear.



7

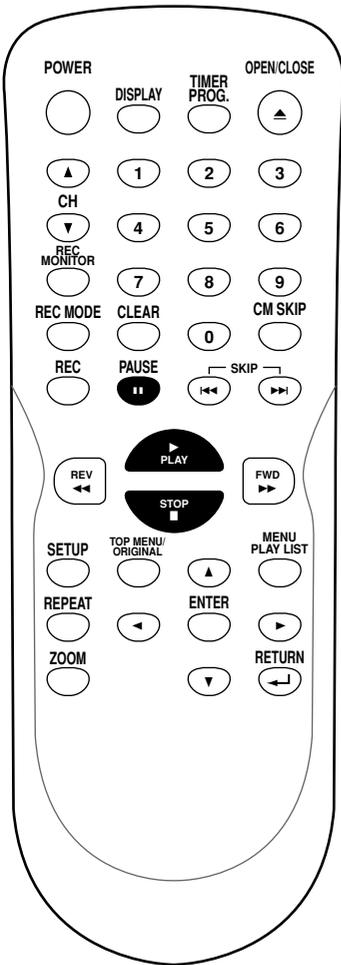
Select **"Yes"** using **◀ / ▶** buttons, then press **ENTER** button.

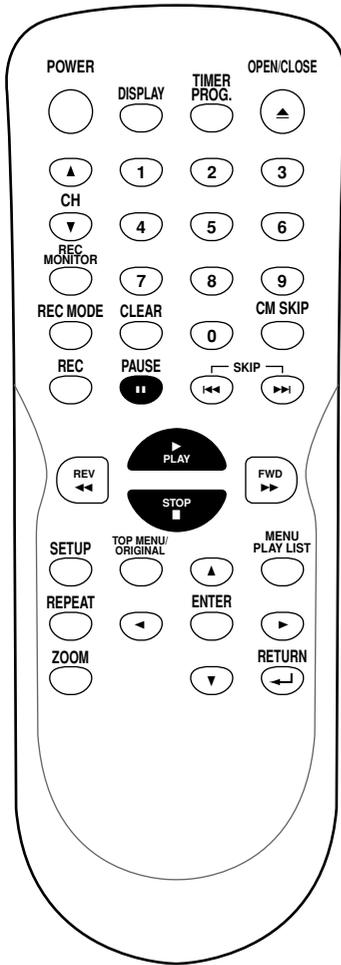
Part of a title will be deleted.



8

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

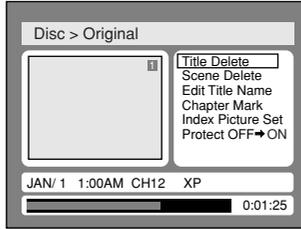




3

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

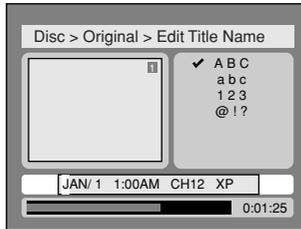
Original menu will appear.



4

Select **“Edit Title Name”** using **▲ / ▼** buttons, then press **ENTER** button.

A window for entering a title name will appear.



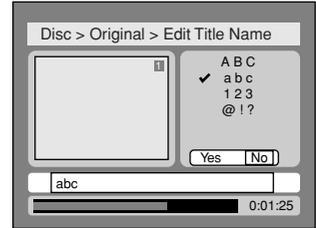
5

Enter a title name using **▲ / ▼ / ◀ / ▶** buttons and number buttons then press **ENTER** button.

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

Refer to page 62 “Table for characters to enter.”

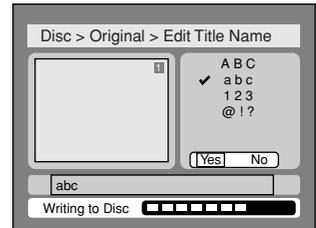
Option window will appear.



6

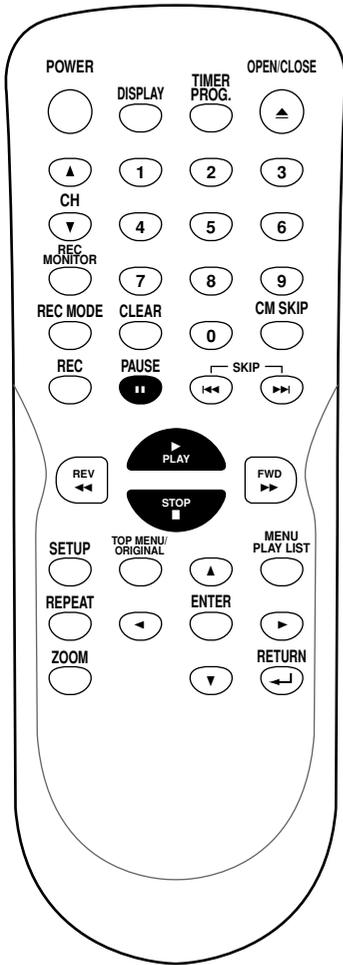
Select **“Yes”** using **◀ / ▶** buttons, then press **ENTER** button.

The name you entered will be activated for the title.



7

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



Setting or clearing chapter markers

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

You can put a chapter marker anywhere you want. When the number of chapter markers in the original list comes to 999 in total, you cannot add chapter markers.

1

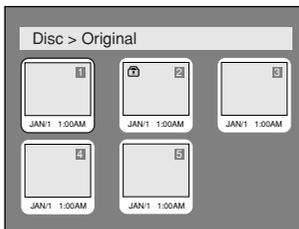
Select "Edit" from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

Screen:



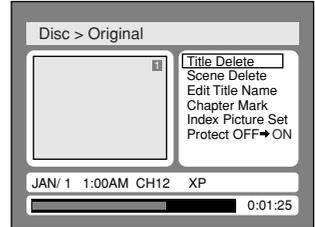
2

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



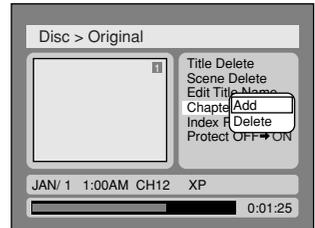
3

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



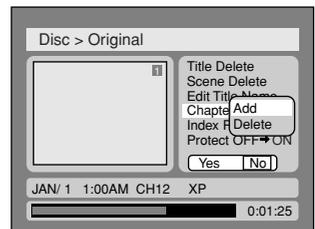
4

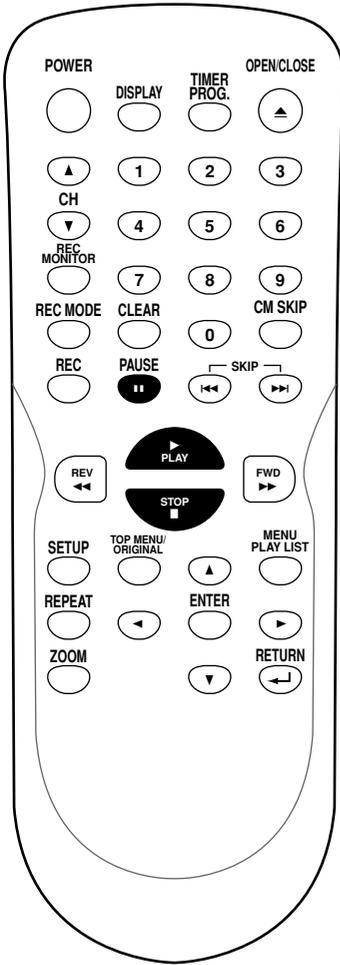
Select "Chapter Mark" using **▲ / ▼** buttons, then press **ENTER** button. Option window will appear.



5

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

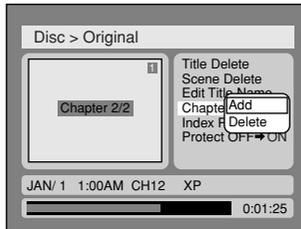
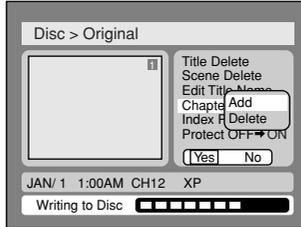




6

Select “Yes” using ◀ / ▶ buttons, then press **ENTER** button.

A chapter marker will be added.



7

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

Setting pictures for thumbnails

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.

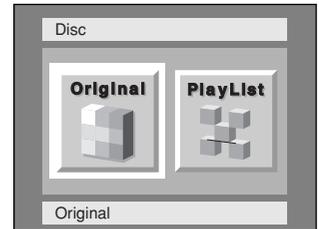
Note:

If a selected picture for a thumbnail is deleted by deleting a part of a title, a default picture will be selected.

1

Select “Edit” from **DISC** menu using ▲ / ▼ buttons, then press **ENTER** button. **DISC** menu will appear.

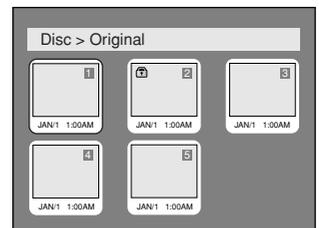
Screen:

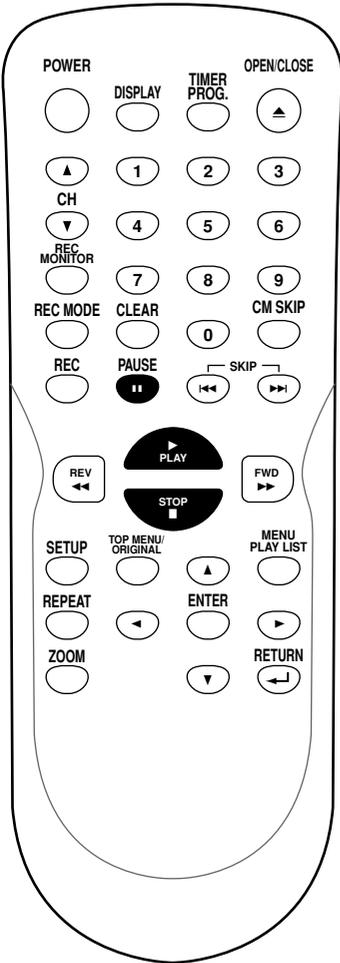


2

Select “Original” using ◀ / ▶ buttons, then press **ENTER** button.

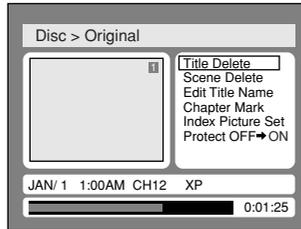
Original list will appear.





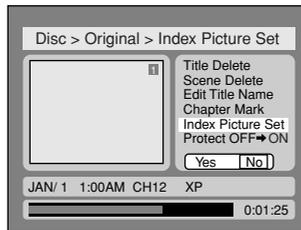
3

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



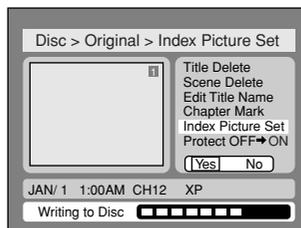
4

Select **“Index Picture Set”** using **▲ / ▼** buttons, then press **ENTER** button. Option window will appear.



5

Select **“Yes”** using **◀ / ▶** buttons, then press **ENTER** button. A picture for thumbnail will be set.



6

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

Setting titles to protect

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

1

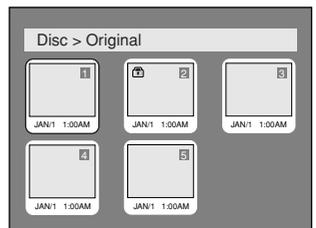
Select **“Edit”** from **DISC** menu using **▲ / ▼** buttons, then press **ENTER** button. **DISC** menu will appear.

Screen:



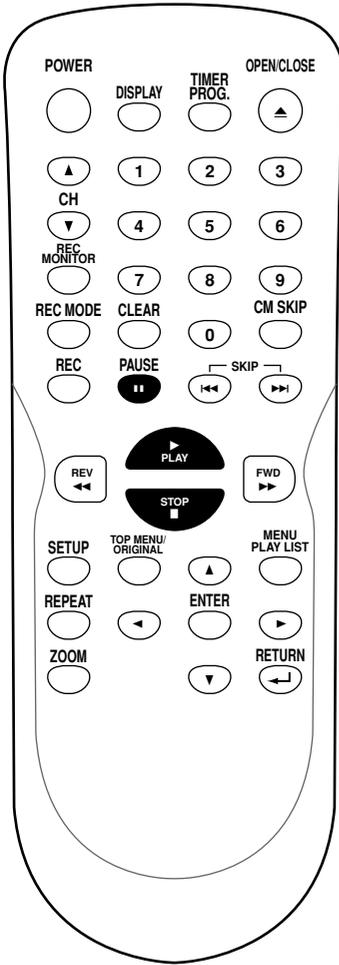
2

Select **“Original”** using **◀ / ▶** buttons, then press **ENTER** button. Original list will appear.

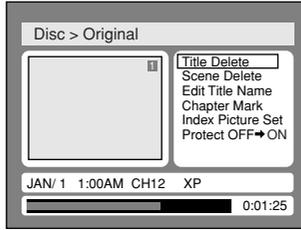


3

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.



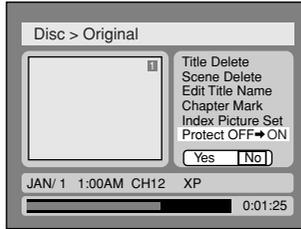
Original menu will appear.



4

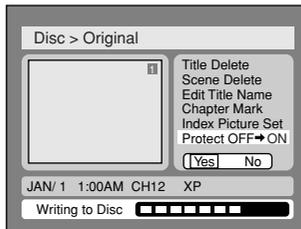
Select “Protect OFF → ON” using ▲ / ▼ buttons, then press ENTER button.

Option window will appear.



5

Select “Yes” using ◀ / ▶ buttons, then press ENTER button.



6

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.”

Releasing titles from protecting

You are allowed to release the titles once protected from protecting.

1

Select “Edit” from DISC menu using ▲ / ▼ buttons, then press ENTER button. DISC menu will appear.

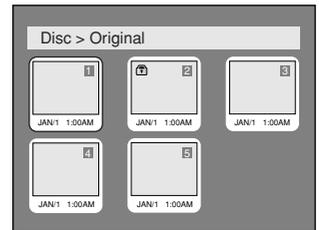
Screen:



2

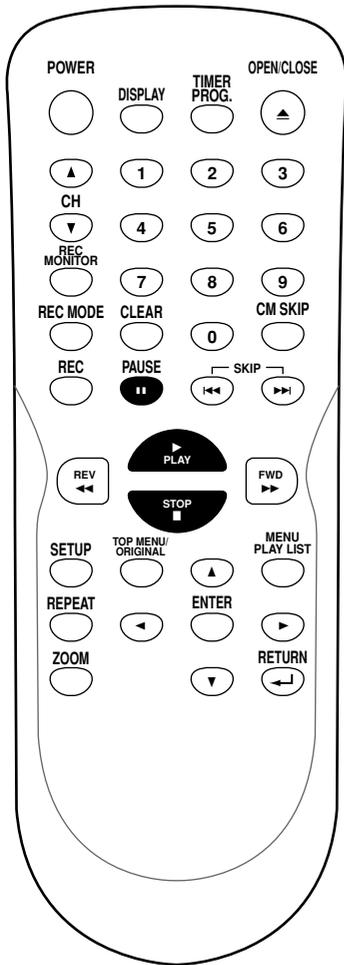
Select “Original” using ◀ / ▶ buttons, then press ENTER button.

Original list will appear.

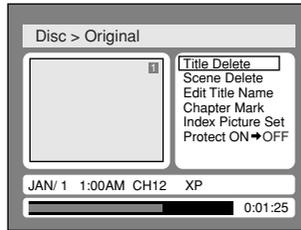


3

Select a desired title using ▲ / ▼ / ◀ / ▶ buttons, then press ENTER button.

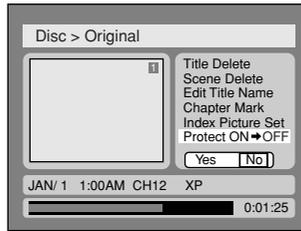


Original menu will appear.



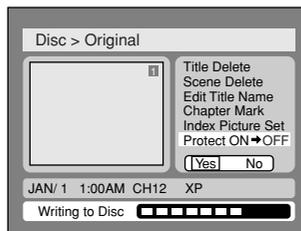
4

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



5

Select “Yes” using **◀ / ▶** buttons, then press **ENTER** button.



6

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

DVD-RW VR Playlist

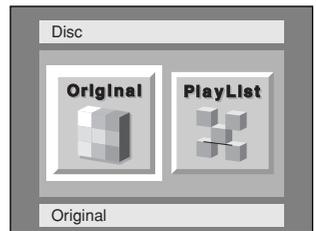
Deleting titles

In VR mode, even when a title is deleted from the playlist, the original title will remain. The disc space to record will not be increased.

1

Select “Edit” from **DISC** menu using **▲ / ▼** buttons, then press **ENTER** button. **DISC** menu will appear.

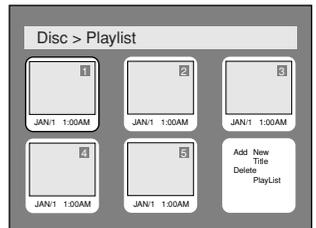
Screen:

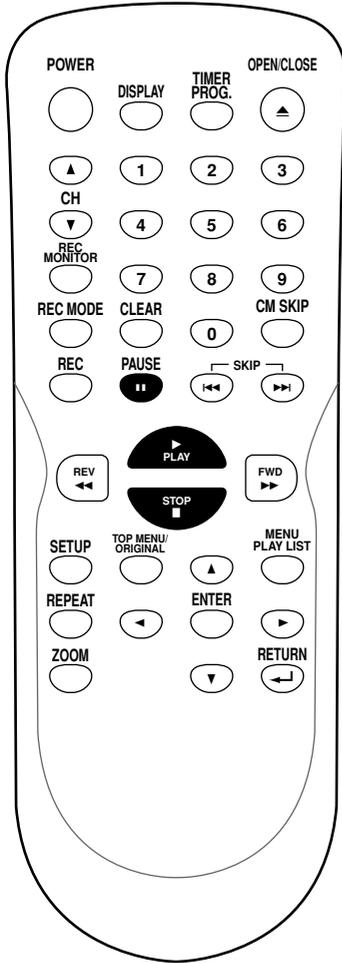


2

Select “PlayList” using **◀ / ▶** buttons, then press **ENTER** button.

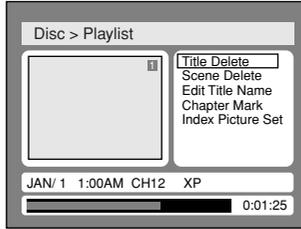
Playlist will appear.





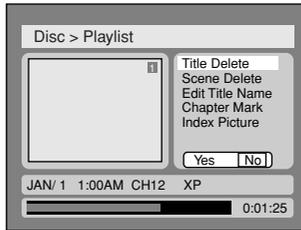
3

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



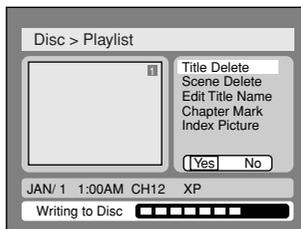
4

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.



6

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

Deleting parts of titles

You can delete a specified 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.

1

Select **“Edit”** from **DISC** menu using **▲ / ▼** buttons, then press **ENTER** button. **DISC** menu will appear.

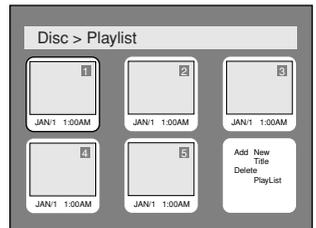
Screen:



2

Select **“PlayList”** using **◀ / ▶** buttons, then press **ENTER** button.

Playlist will appear.



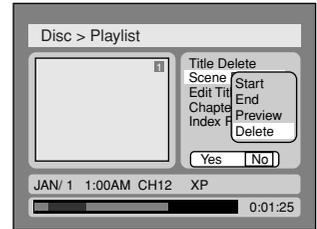
3

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

6

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

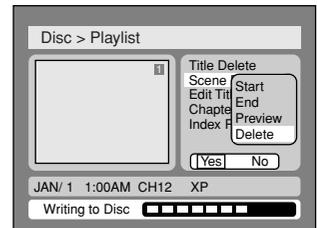
Option window will appear.



7

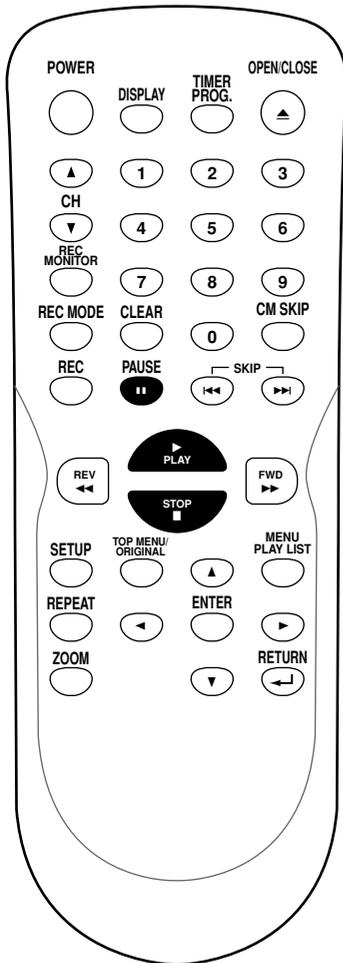
Select "Yes" using **◀ / ▶** buttons, then press **ENTER** button.

Part of a title will be deleted.



8

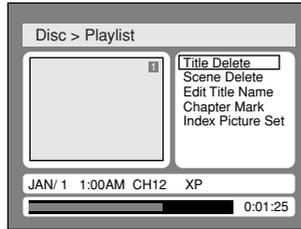
Press **SETUP** button to exit **DISC** menu.



4

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

Option window will appear.

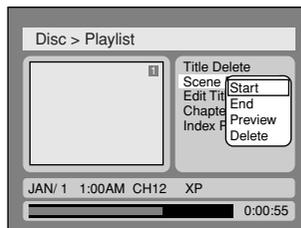


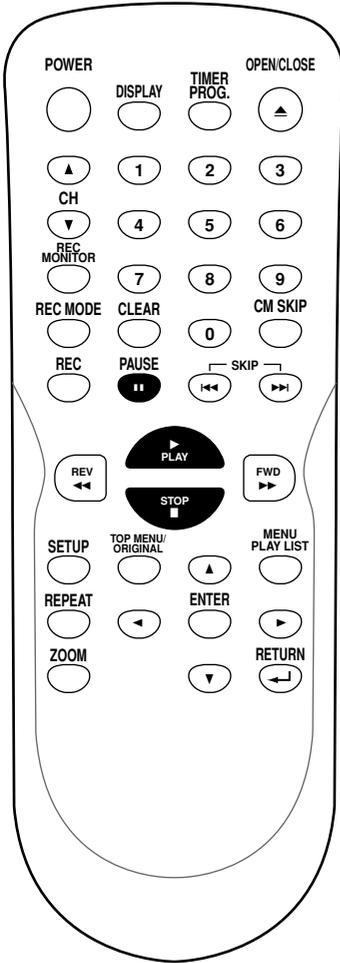
5

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

A cursor will move to "Preview".

You can check a preview.





Putting names on titles

You can put title names on the titles and change the names from this menu.

The names you put on the titles will be displayed on a titlelist.

1

Select “Edit” from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

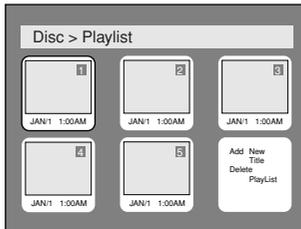
Screen:



2

Select “PlayList” using **◀ / ▶** buttons, then press **ENTER** button.

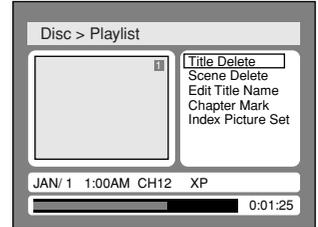
Playlist will appear.



3

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

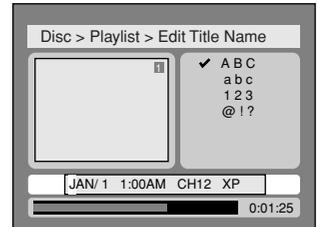
Playlist menu will appear.



4

Select “Edit Title Name” using **▲ / ▼** buttons, then press **ENTER** button.

A window for entering a title name will appear.



5

Enter a title name using **▲ / ▼ / ◀ / ▶** buttons and number buttons, then press **ENTER** button.

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

Refer to page 62 “Table for characters to enter.”

Setting or clearing chapter markers

You can put chapter markers in each title. Once a chapter is marked, you can use it for the chapter search feature. You can put a chapter marker anywhere you want. When the number of chapter markers in the playlist comes to 999 in total, you cannot add chapter markers.

1

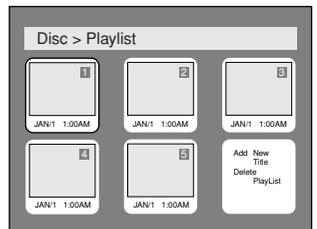
Select "Edit" from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

Screen:

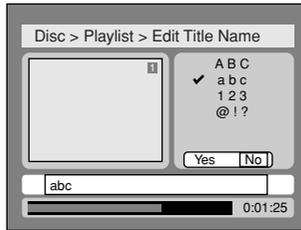


2

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



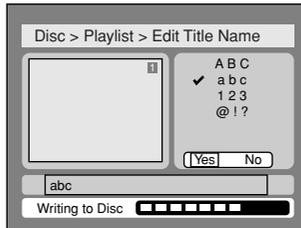
Option window will appear.



6

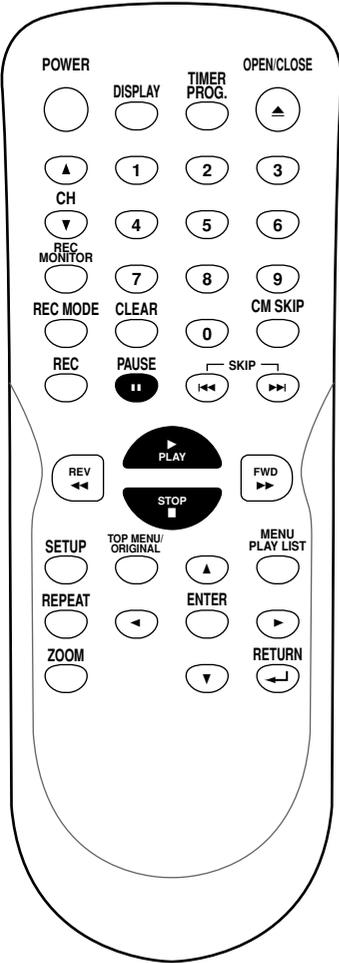
Select "Yes" using **◀ / ▶** buttons, then press **ENTER** button.

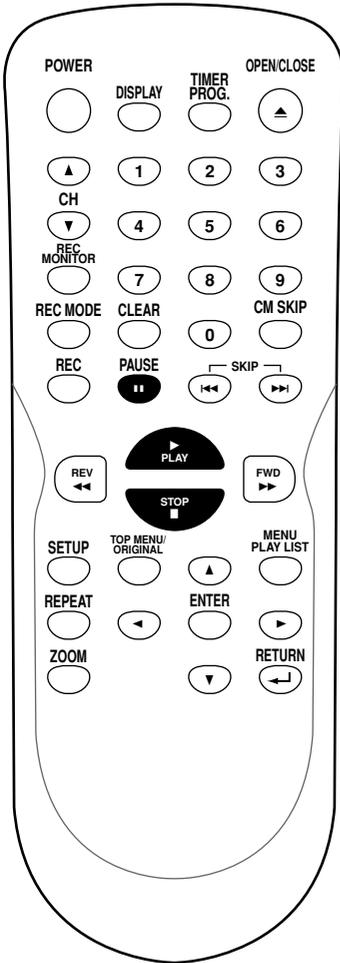
The name you entered will be activated for the title.



7

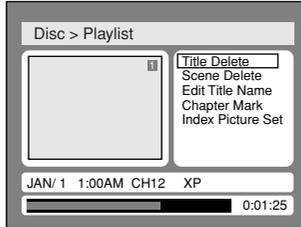
Press **SETUP** to exit DISC menu.





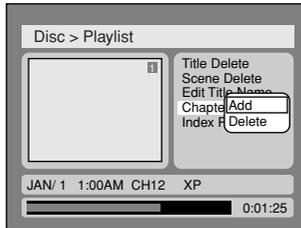
3

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



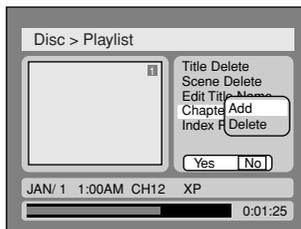
4

Select **“Chapter Mark”** using **▲ / ▼** buttons, then press **ENTER** button. Option window will appear.



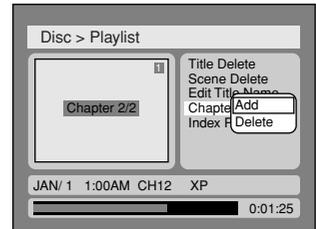
5

Select **“Add”** using **▲ / ▼** buttons, then press **ENTER** button. Option window will appear.



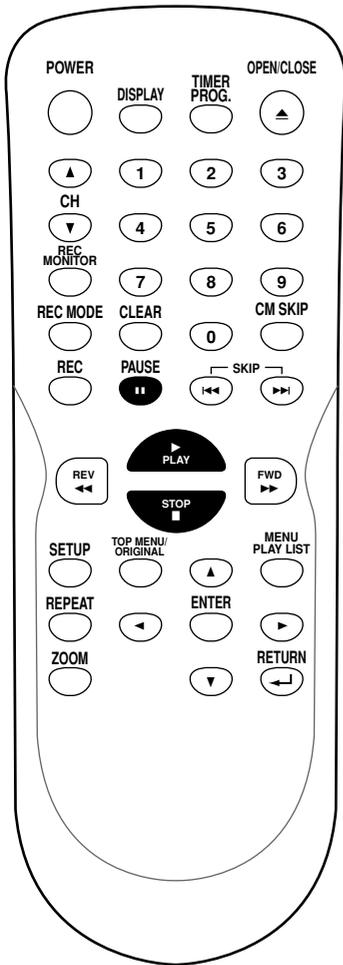
6

Select **“Yes”** using **◀ / ▶** buttons, then press **ENTER** button. A chapter marker will be added.



7

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



Setting pictures for thumbnails

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.

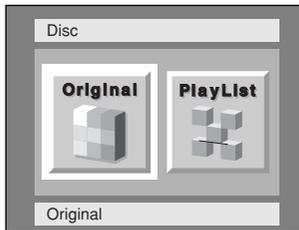
Note:

If a selected picture for a thumbnail is deleted by deleting a part of a title, a default picture will be selected.

1

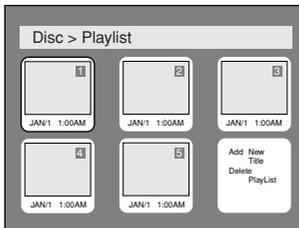
Select "Edit" from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

Screen:



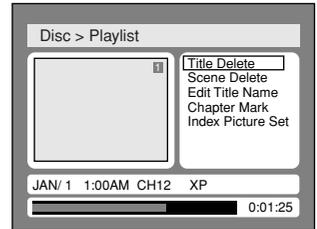
2

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



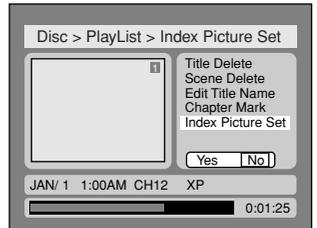
3

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



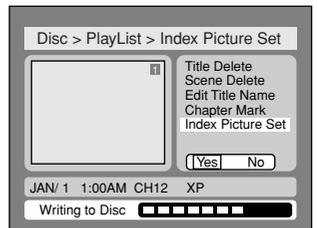
4

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



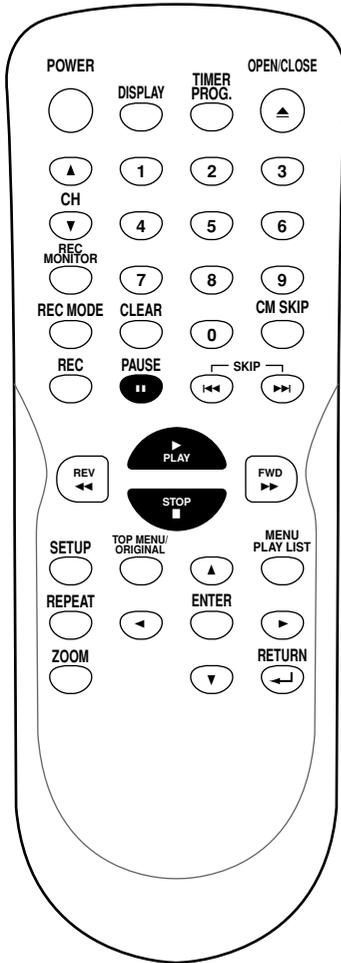
5

Select "Yes" using **◀ / ▶** buttons, then press **ENTER** button. A picture for thumbnail will be set.



6

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



Adding titles to a playlist

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

1

Select “Edit” from DISC menu using ▲ / ▼ buttons, then press ENTER button. DISC menu will appear.

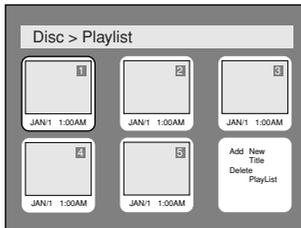
Screen:



2

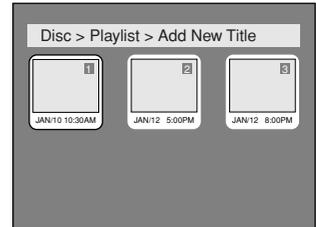
Select “PlayList” using ◀ / ▶ buttons, then press ENTER button.

Playlist will appear.



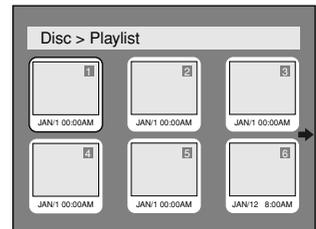
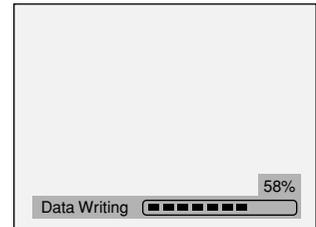
3

Select “Add New Title” using ▲ / ▼ / ◀ / ▶ buttons, then press ENTER button. Original list will appear.



4

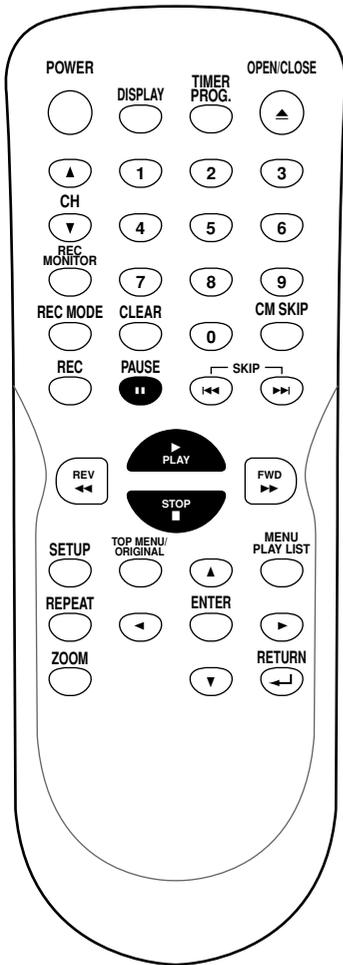
Select a desired title using ▲ / ▼ / ◀ / ▶ buttons, then press ENTER button.



5

Press SETUP button to exit DISC menu.

To delete a title from playlist, refer to page 76 “Deleting titles.” To delete a playlist, refer to page XX “Deleting a playlist.”



Deleting a playlist

A playlist can be deleted when becoming not needed.

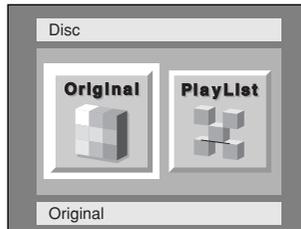
Note:

Deleting a playlist will not increase the available recording time.

1

Select “Edit” from DISC menu using **▲ / ▼** buttons, then press **ENTER** button. DISC menu will appear.

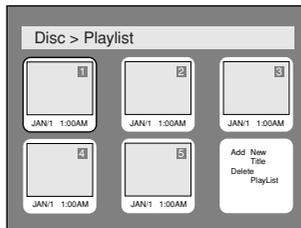
Screen:



2

Select “PlayList” using **◀ / ▶** buttons, then press **ENTER** button.

Playlist will appear.



3

Select “Delete Playlist” using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

Option window will appear.



4

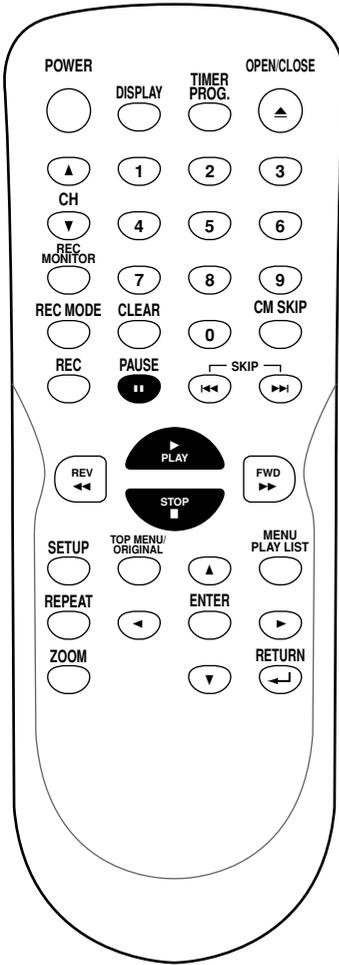
Select “Yes” using **◀ / ▶** buttons, then press **ENTER** button.

A playlist will be erased.



5

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



DVD-R

Deleting titles

You can delete titles which you do not need anymore, however the disc space to record will not increase.

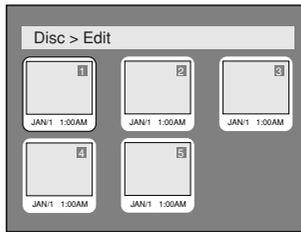
Be sure to know that the titles once deleted cannot be brought back to the disc.

1

Select “Edit” from DISC menu using **▲ / ▼** buttons, then press **ENTER** button.

Titlelist will appear.

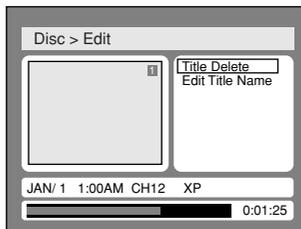
Screen:



2

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

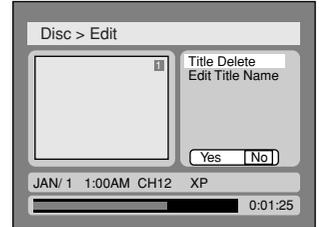
Edit menu will appear.



3

Select “Title Delete” using **▲ / ▼** buttons, then press **ENTER** button.

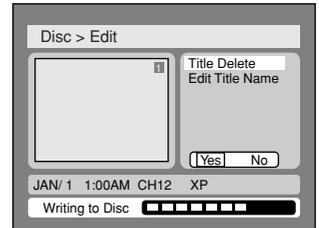
Option window will appear.



4

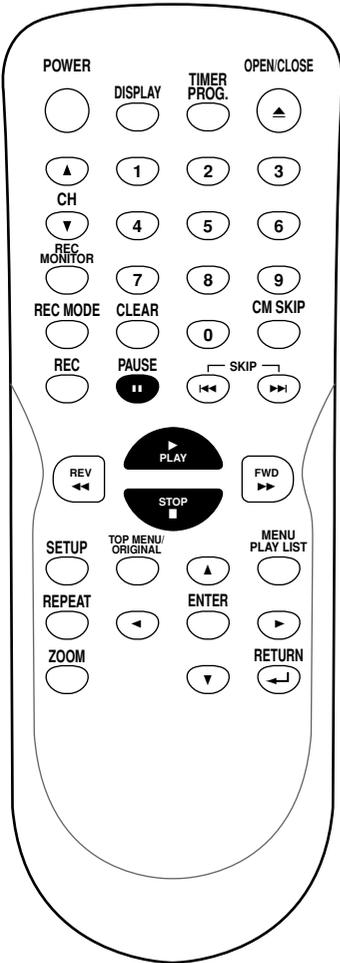
Select “Yes” using **◀ / ▶** buttons, then press **ENTER** button.

Title will be deleted.



5

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



Putting names on titles

You can put title names on the titles and change the names from this menu.

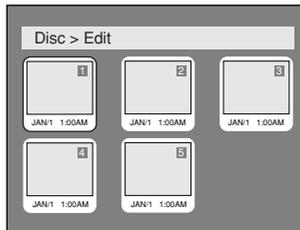
The names you put on the titles will be displayed on a titlelist.

1

Select “Edit” from DISC menu using **▲ / ▼** buttons, then press **ENTER** button.

Titlelist will appear.

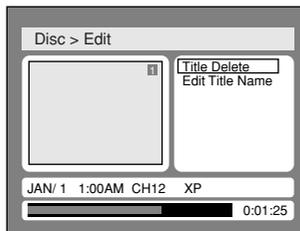
Screen:



2

Select a desired title using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

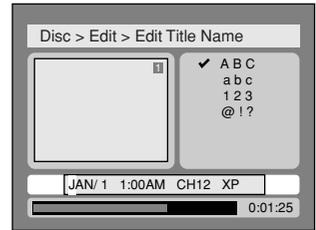
Edit menu will appear.



3

Select “Edit Title Name” using **▲ / ▼** buttons, then press **ENTER** button.

Alphabet window will appear.

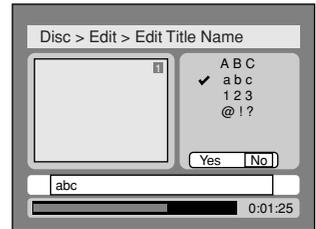


4

Enter a title name using **▲ / ▼ / ◀ / ▶** buttons and number buttons, then press **ENTER** button.

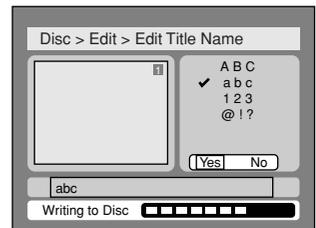
Refer to page xx for details.

Option window will appear.



5

Select “Yes” using **◀ / ▶** buttons, then press **ENTER** button.

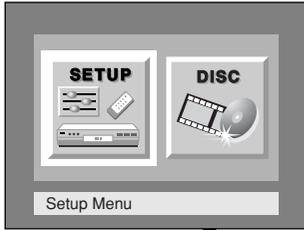


6

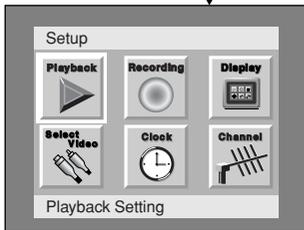
Press **SETUP** button to exit DISC menu.

Using SETUP menu

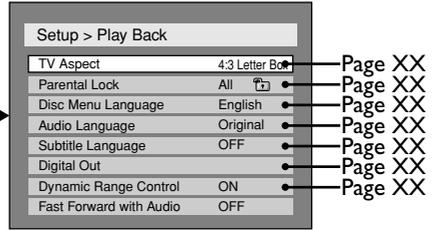
SETUP/DISC Menu



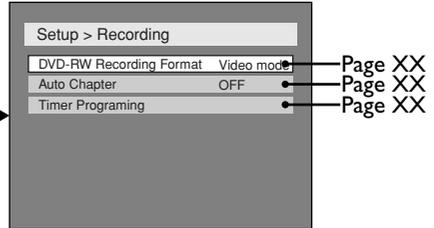
SETUP menu



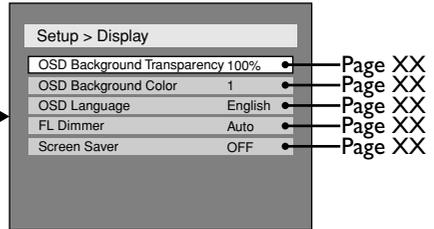
Play Back



Recording



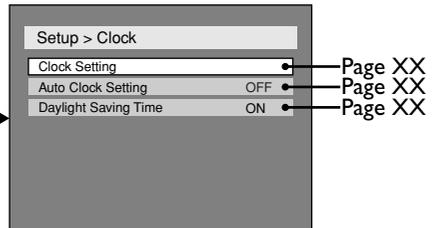
Display



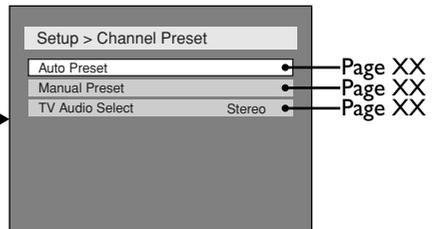
Select Video

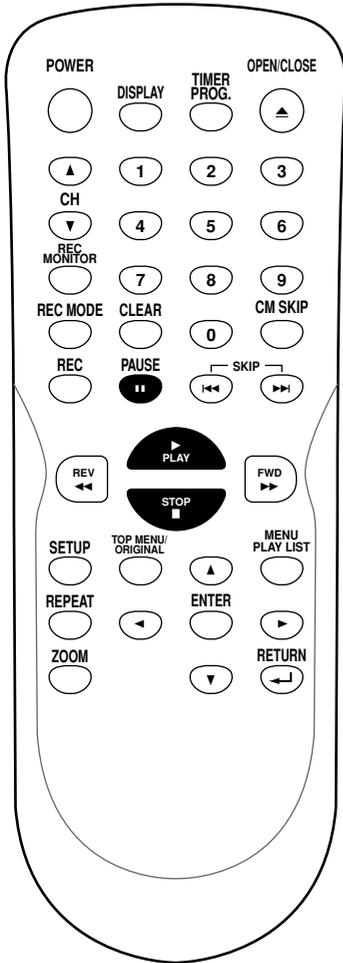


Clock



Channel Preset





Other settings: Parental Lock

Some DVD-Video discs feature a Parental Lock level. If the DVD recorder is set to a lower level than the disc, it will require you to enter a password before the disc will play. This gives you some control about what your children watch on the DVD recorder.

Note:

This feature may not be available to some discs.

Setting a parental lock level

When you first change the parental lock level or after resetting the DVD recorder, there is no password set. When the password setting menu appears, enter a 4-digit number as your own password. "All" has been selected as the default.

Note:

You will find 2 kinds of icon in Parental Lock.

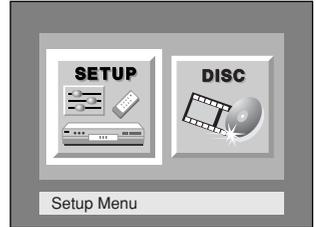
 : A password has been set already.

 : A password has not been set yet.

1

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

Screen:



2

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

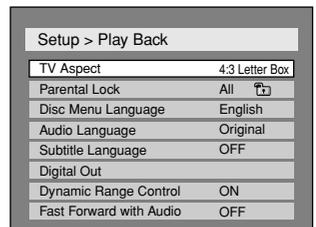
SETUP menu will appear.



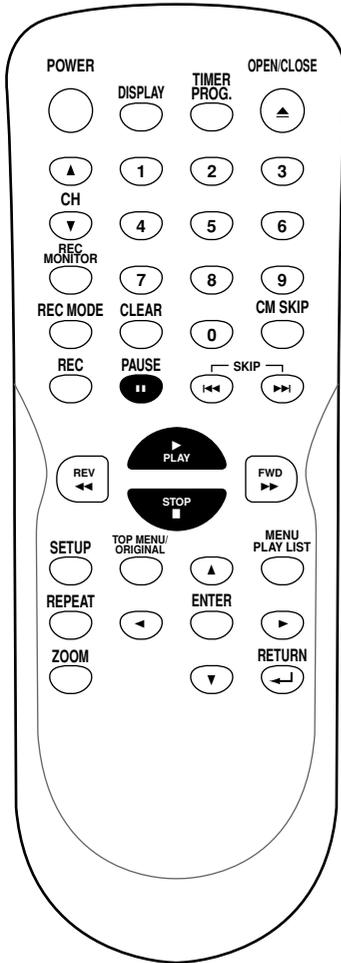
3

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

Play Back menu will appear.



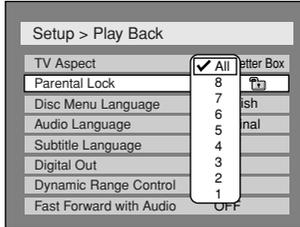
Using SETUP menu



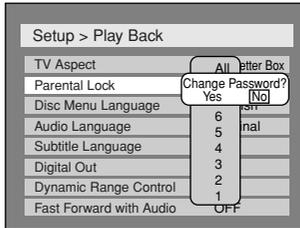
4

Select “Parental Lock” using ▲ / ▼ buttons, then press ENTER button.

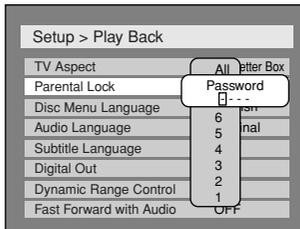
When you first change the parental lock level: Option window will appear.



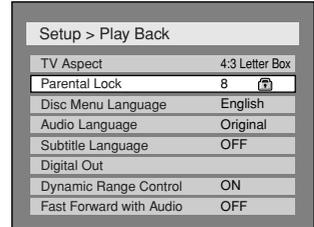
1. Change the parental level using ▲ / ▼ buttons, then press ENTER button. Option window will appear.



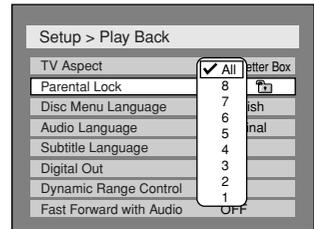
2. Select “Yes,” then enter a new password.



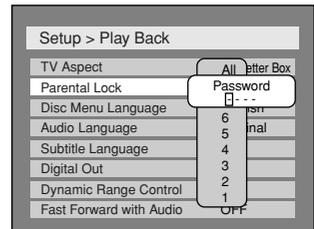
3. Press ENTER button. Your own password has been changed and your setting will be activated.



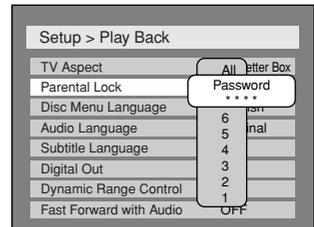
When you already set your own password: Option window will appear.

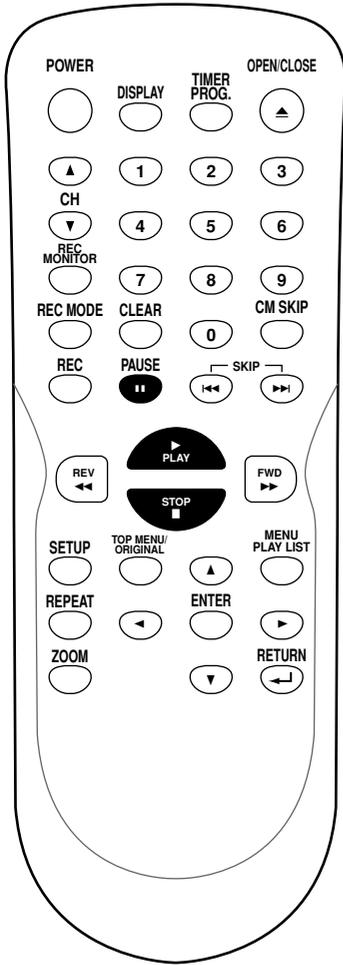


1. Change the parental level using ▲ / ▼ buttons, then press ENTER button. Option window will appear.

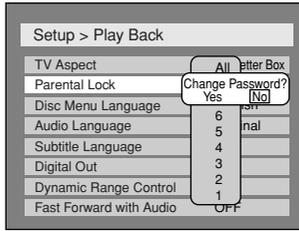


2. Enter your own password.

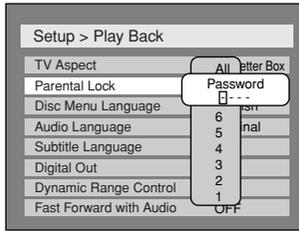




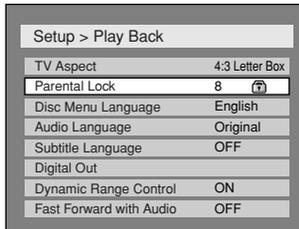
3. Press ENTER button.
Option window will appear.



4. Select "Yes," then enter a new password.
When selecting "No," the current password is still effective.



5. Press ENTER button.
Your own password has been changed and your setting will be activated.

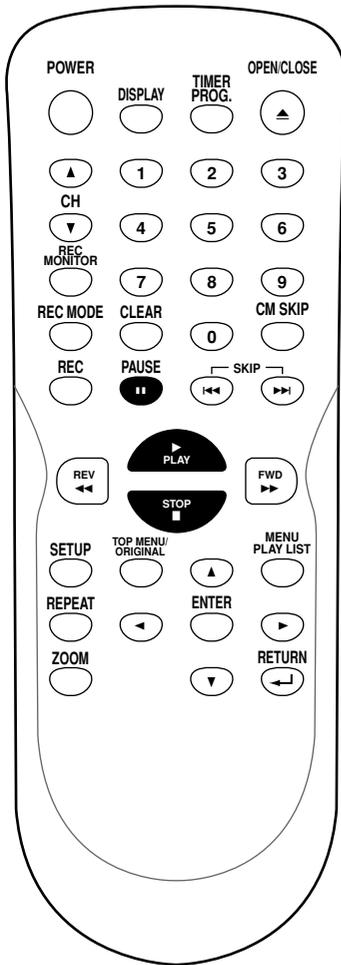


5

Press SETUP button to exit SETUP menu.

Note:
Clearing Parental Lock setting

When you forget the password or you want to clear all setting in Parental Lock, entering 4, 7, 3, and 7 as an alternate will be effective.



Other settings: Language settings

Various languages may be available for the discs you play. You can choose the language you prefer for each. English has been selected as the default.

All language settings are not always available with all discs.

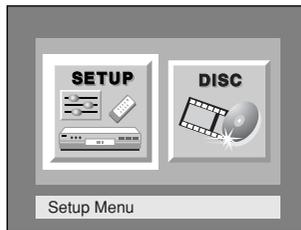
Choosing the menu language

1

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

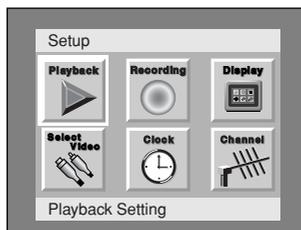
SETUP/DISC menu will appear.

Screen:



2

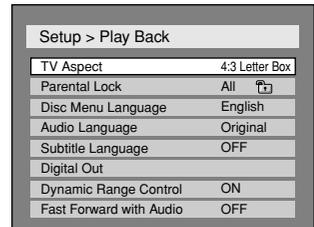
Select **SETUP** using **◀/▶** navigation buttons, then press **ENTER** button. SETUP menu will appear.



3

Select **“Playback”** using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

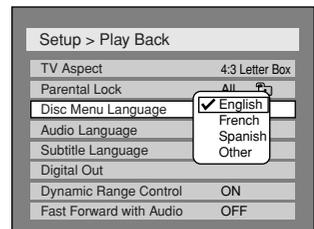
Play Back menu will appear.



4

Select **“Disc Menu Language”** using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



5

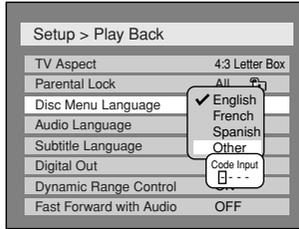
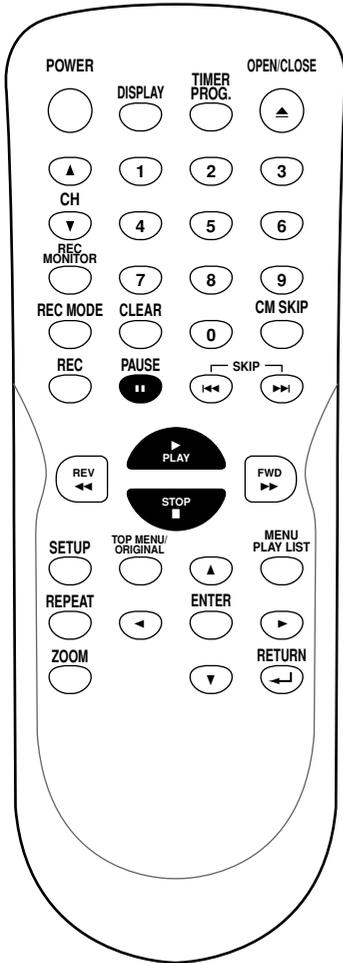
Select a desired language using **▲ / ▼** buttons, then press **ENTER** button.

When you want a language other than English, French, and Spanish:

1. Choose **“Other,”** then press **ENTER** button.

The code input option will appear, so that you can select a language you want by entering the 4-digit code number using number buttons.

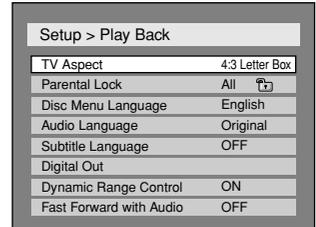
Refer to the language code table on page xx.



3

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

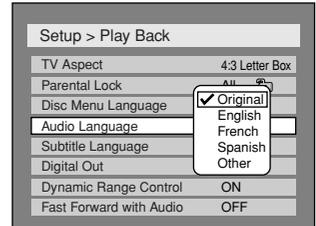
Play Back menu will appear.



4

Select "Audio Language" using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



5

Select a desired language using **▲ / ▼** buttons, then press **ENTER** button.

When the language you have selected is included in the disc you are playing, the DVD recorder will play the disc in the specified language in this menu.

Note:

This feature may not be available to some discs.

6

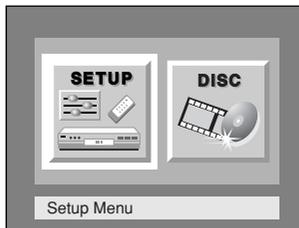
Press **SETUP** button to exit **SETUP** menu.

Choosing the audio language

1

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

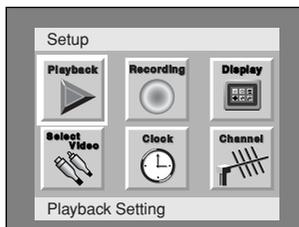
Screen:



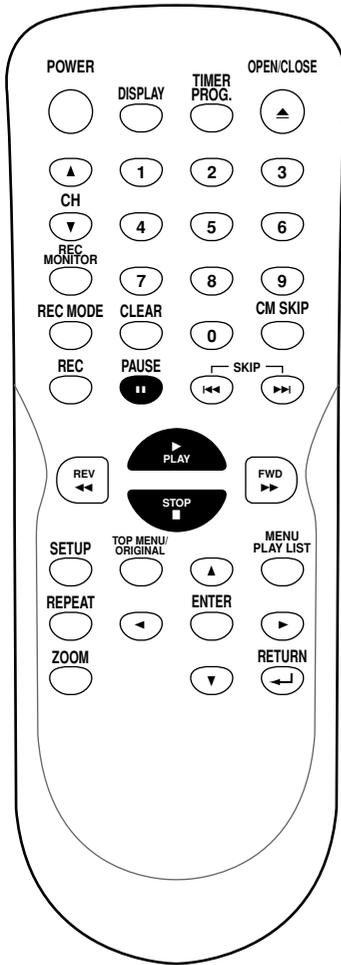
2

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

SETUP menu will appear.



Using SETUP menu



When you want a language other than those in the option:

1. Choose "Other," then press ENTER button.

The code input option will appear, so that you can select a language you want by entering the 4-digit code number using number buttons.

Refer to the language code table on page xx.



6

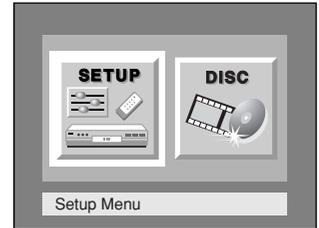
Press **SETUP** button to exit **SETUP** menu.

Choosing the subtitle language

1

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

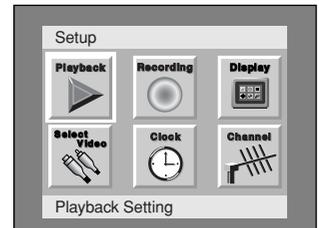
Screen:



2

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

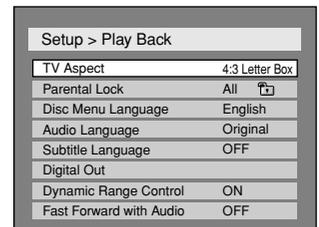
SETUP menu will appear.

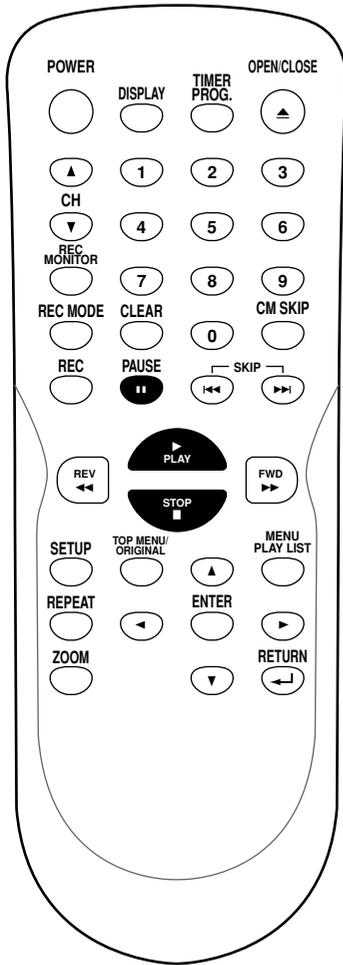


3

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

Play Back menu will appear.

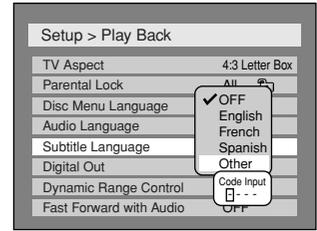




4

Select “Subtitle Language” using ▲ / ▼ buttons, then press ENTER button.

Option window will appear.



Select “OFF” to switch subtitles off the screen.

Note:

You can change or switch off the subtitles on a DVD disc also from the disc menu if it is available.

5

Select a desired language using ▲ / ▼ buttons, then press ENTER button.

When the language you have selected is included in the disc you are playing, the DVD recorder will play the disc in the specified language in this menu.

Note:

This feature may not be available to some discs.

When you want a language other than those in the option:

1.

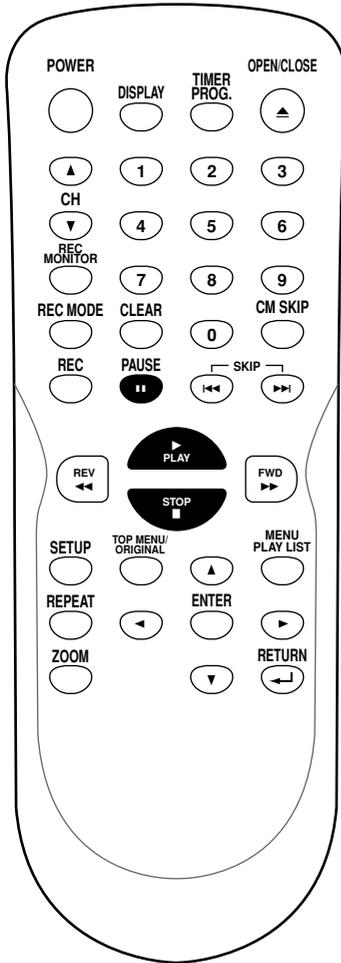
Choose “Other,” then press ENTER button.

The code input option will appear, so that you can select a language you want by entering the 4-digit code number using number buttons.

Refer to the language code table on page xx.

6

Press SETUP button to exit SETUP menu.



Other settings: Audio settings

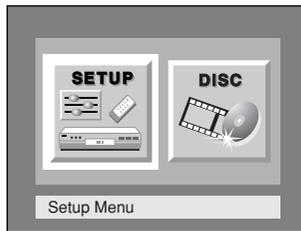
Setting digital audio output

When you are connecting the DVD recorder to an amplifier/decoder, which is compatible with digital audio output, you will need to make the settings to enjoy the full surround sound. Dolby Digital has been selected as the default.

1

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

Screen:



2

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

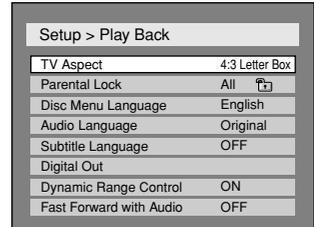
SETUP menu will appear.



3

Select **“Playback”** using **▲/▼** / **◀/▶** buttons, then press **ENTER** button.

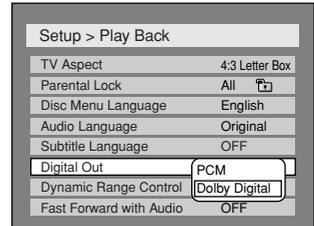
Play Back menu will appear.



4

Select **“Digital Out”** using **▲** / **▼** buttons, then press **ENTER** button.

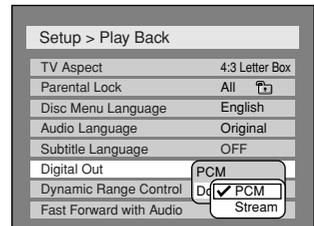
Option window will appear.

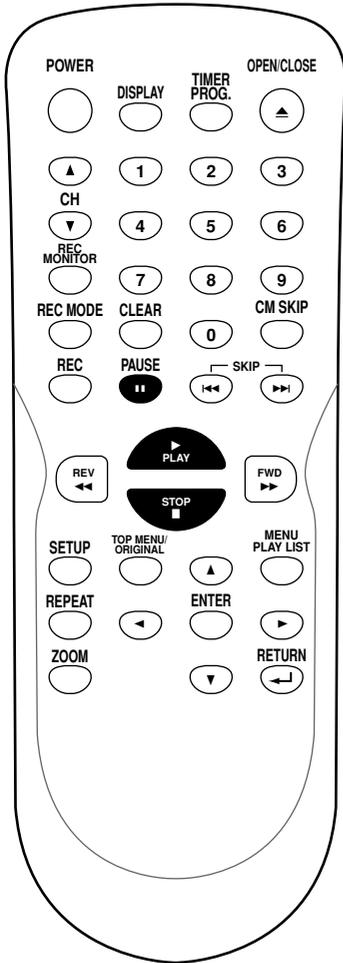


5

Select desired options using **▲/▼** buttons, then press **ENTER** button.

Dolby Digital:





When your amplifier/decoder is compatible with Dolby Digital:

1. Select “Dolby Digital” using ▲ / ▼ buttons, then press ENTER button.

2. Select “Stream” using ▲ / ▼ buttons, then press ENTER button.

Dolby Digital sound will be output.

When your amplifier/decoder is NOT compatible with Dolby Digital:

1. Select “PCM” using ▲ / ▼ buttons, then press ENTER button.

PCM sound will be output.

Note:

PCM sound will be output depending on your PCM setting.

PCM:



When your amplifier/decoder is compatible with 96kHz PCM:

1. Select one among all options using ▲ / ▼ buttons, then press ENTER button.

Auto:

96kHz sound will be output when a DVD copy guard function is off. 96kHz sound will be output in 48kHz when Copyguard function is on.

96kHz:

96kHz sound will be output, however no digital sound will be output when Copyguard function is on.

48kHz:

Every sound will be output in 48kHz.

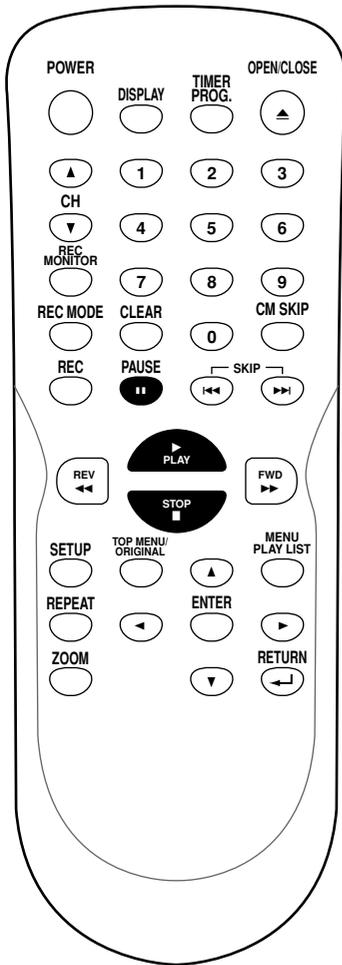
When your amplifier/decoder is NOT compatible with 96kHz PCM:

1. Select “48kHz” using ▲ / ▼ buttons, then press ENTER button.

6

Press SETUP button to exit SETUP menu.

Using SETUP menu

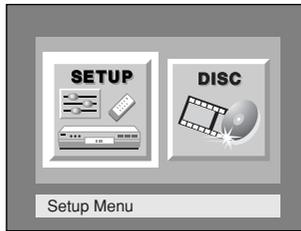


Compressing the range of sound volume

1

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

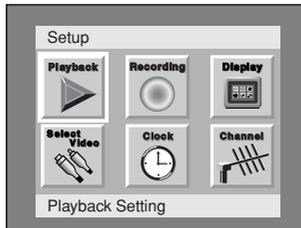
Screen:



2

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

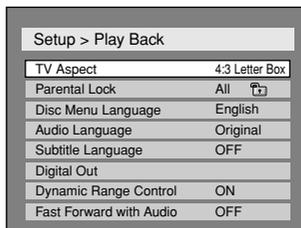
SETUP menu will appear.



3

Select **“Playback”** using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

Play Back menu will appear.



4

Select **“Dynamic Range Control”** using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



5

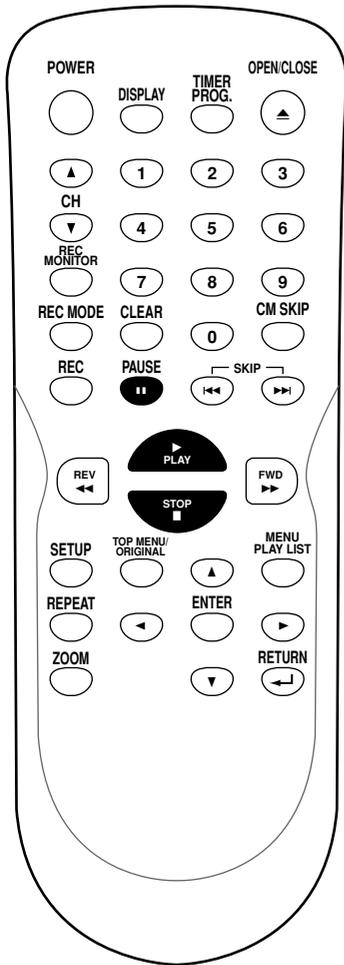
Select **“ON”** or **“OFF”** using **▲ / ▼** buttons, then press **ENTER** button.

On:

The range of sound volume will be compressed.

6

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

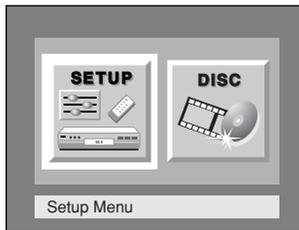


Outputting the sound during play in fast forward

1

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

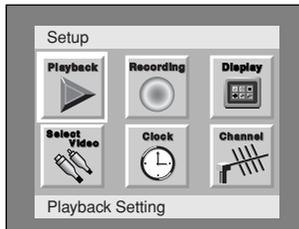
Screen:



2

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

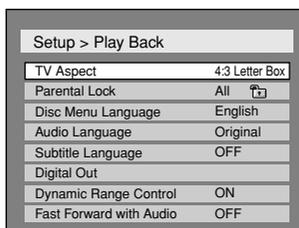
SETUP menu will appear.



3

Select **“Playback”** using **▲ / ▼ / ◀ / ▶** buttons, then press **ENTER** button.

Play Back menu will appear.



4

Select **“Fast Forward with Audio”** using **▲ / ▼** buttons, then press **ENTER** button.

Option window will appear.



5

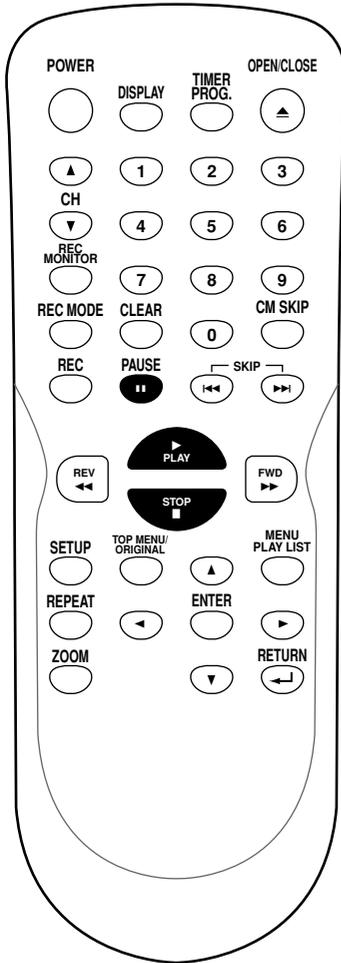
Select **“ON”** or **“OFF”** using **▲ / ▼** buttons, then press **ENTER** button.

On:

Sound will be output during play in fast forward of x2.

6

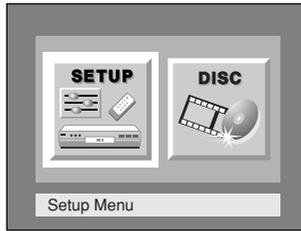
Press **SETUP** button to exit **SETUP** menu.



Other settings: Display

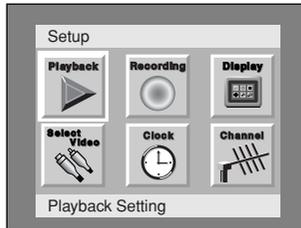
1

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



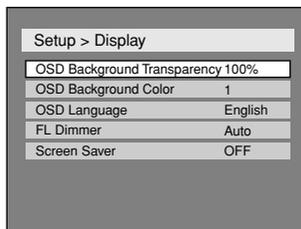
2

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.

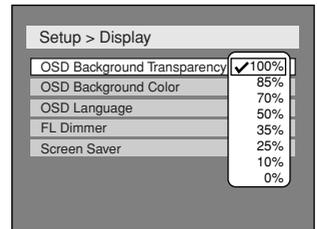


4

Select the below item using **▲ / ▼** buttons, then press **ENTER** button.

OSD Background Transparency:

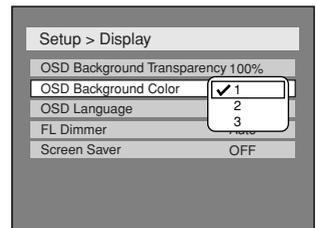
You can setup the background transparency of OSD screen with your preference. Choose one among 0% through 100%.
Default: 100%



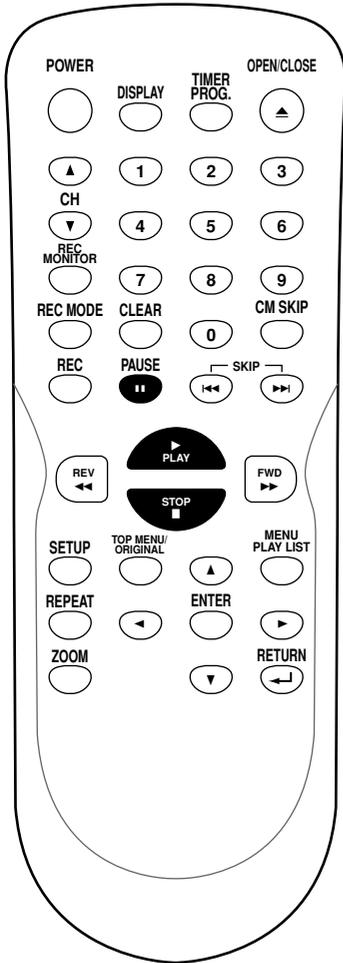
1. Select a desired transparency, then press **ENTER** button. Your setting will be activated.

OSD Background Color:

You can setup the OSD screen with your color preference. Choose one among 1 (Green), 2 (Blue), and 3 (Red).
Default: 1 (Green)



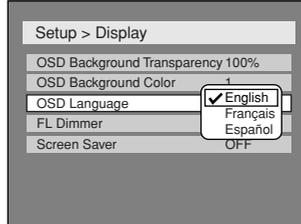
1. Select a desired option(1: Green, 2: Blue, 3: Red), then press **ENTER** button. Your setting will be activated.



OSD Language:

English, French, and Spanish are available for the OSD language. You can choose the language as your convenience.

Default: English

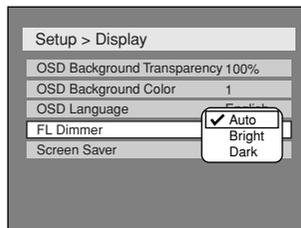


1. **Select a desired language, then press ENTER button.** Your setting will be activated.

FL Dimmer:

The brightness of front display can be changed as you prefer. "Auto," "Bright," and "Dark" are available. With "Auto" selected, the front display is dimmed brightly for approx. 15 seconds when the DVD recorder is operating, otherwise dimmed dark.

Default: Auto

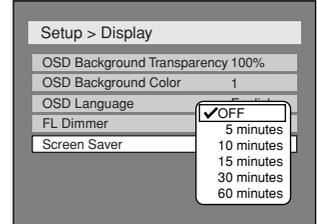


1. **Select a desired option, then press ENTER button.** Your setting will be activated.

Screen Saver:

You can set the screen saver to on or off. Then you can select the time to work the screen saver function on the screen.

Default: OFF



1. **Select a desired option, then press ENTER button.** Your setting will be activated.

5

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

Troubleshooting

Before requesting service for this DVD recorder, check the table below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore 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 RETURN ◀ button to turn off the display. • Check the connection to your TV (page XX). • Switch the input selector on your TV (such as to "LINE1") so that the signal from the DVD recorder appears on the TV screen.
Picture noise appears.	<ul style="list-style-type: none"> • The disc is dirty or flawed. • If the picture output signal from the DVD recorder passes through your VCR to get to your TV, or if you are connected to a combination TV/VIDEO player, the copy-protection signal applied to some DVD programs could affect picture quality. If you still experience this problem even when you connect the DVD recorder directly to your TV, try connecting the DVD recorder to your TV's S-VIDEO input.
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 XX). • Select a channel of any TV program using the CH▲/▼ buttons.
TV program pictures are distorted.	<ul style="list-style-type: none"> • Reorient the TV antenna. • Adjust the picture (see the TV's instruction manual). • Place the DVD recorder and TV farther apart. • Place the TV and any bunched antenna cables farther apart.
TV channels cannot be changed.	<ul style="list-style-type: none"> • Switch the input to TV. • Connect the antenna cable correctly (page XX).
The playback picture or TV program from the equipment connected through the DVD recorder is distorted.	<ul style="list-style-type: none"> • If the playback picture output from a DVD player, VCR, or tuner goes through the DVD recorder before reaching your TV, the copy-protection signal applied to some programs could affect picture quality. Disconnect the playback equipment in question and connect it directly to your TV.
Sound	
There is no sound.	<ul style="list-style-type: none"> • 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 recorder is in pause mode or in Slow-motion Play mode. • The recorder is in fast forward or fast reverse mode. • If the audio signal does not come through the DIGITAL OUT (COAXIAL) jack, check the Audio Setup settings (page XX).
Sound is noisy.	<ul style="list-style-type: none"> • The disc is dirty or flawed. • When playing a CD with DTS sound tracks without DTS decoder, noise will come from the speakers.

Symptom	Remedy
Playback The disc does not play.	<ul style="list-style-type: none"> • No disc is inserted. • A blank disc is inserted. • The disc is upside down. Insert the disc with the labeled side facing up. • The disc is not correctly inserted. • The DVD recorder cannot play certain discs (such as a CD-ROM) (page XX). • The region code on the DVD VIDEO does not match the DVD recorder (page XX). • Moisture has condensed inside the DVD recorder. Remove the disc and leave the DVD recorder turned on for about half an hour until the moisture evaporates (page XX). • If the disc was recorded on another recorder, the DVD recorder cannot play the disc if it was not finalized (page XX).
The disc does not start playback from the beginning.	<ul style="list-style-type: none"> • Resume play was activated (page XX). Press STOP ■ button twice. • You have inserted a disc whose Title menu or DVD menu
The DVD recorder 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 "ANGLE" does not appear on the TV screen (page XX). • 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"> • Set the TV's input to "TV."
Recording does not start immediately after you press REC button.	<ul style="list-style-type: none"> • An unused DVD-R or DVD-RW was inserted. It takes a while for the DVD recorder to automatically format a DVD-RW.
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 DVD recorder's internal clock stopped due to a power failure that lasted for more than 30 sec. Reset the clock (page XX). • Disconnect the AC power cord from the AC outlet, and connect it again. • The program contains copy protection signals that restricts 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 DVD recorder to inout disc data before recording can stop.
Timer recording is not complete 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 XX). • Disc space was not enough.

Others

Symptom	Remedy
Remote control	
The remote does not function.	<ul style="list-style-type: none"> • Batteries are weak. • There are obstacles between the remote and the DVD recorder. • The remote is too far from the DVD recorder. • There are no batteries in the remote. • Turn on the DVD recorder. • The remote is not pointed at the remote sensor on the DVD recorder.
Others	
The DVD recorder does not operate properly.	<ul style="list-style-type: none"> • When static electricity, etc., causes the DVD recorder to operate abnormally, unplug the DVD recorder and then plug it in again.
The disc tray does not open when you press OPEN/CLOSE  button.	<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. • This is because the DVD recorder is adding disc data to the disc.

Quick Guide to DVD disc types

Refer to the following when selecting a disc (DVD-RW or DVD-R) and a recording format (VR mode or Video mode for DVD-RW discs).

☆☆☆ : 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	No
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.

Language code

Language	Code
Abkhazian	4748
Afar	4747
Afrikaans	4752
Albanian	6563
Amharic	4759
Arabic	4764
Armenian	5471
Assamese	4765
Aymara	4771
Azerbaijani	4772
Bashkir	4847
Basque	5167
Bengali; Bangla	4860
Bhutani	5072
Bihari	4854
Bislama	4855
Breton	4864
Bulgarian	4853
Burmese	5971
Byelorussian	4851
Cambodian	5759
Catalan	4947
Chinese	7254
Corsican	4961
Croatian	5464
Czech	4965
Danish	5047
Dutch	6058
English	5160
Esperanto	5161
Estonian	5166
Faroese	5261
Fiji	5256
Finnish	5255
French	5264
Frisian	5271
Galician	5358
Georgian	5747
German	5051
Greek	5158
Greenlandic	5758
Guarani	5360
Gujarati	5367
Hausa	5447
Hebrew	5569
Hindi	5455

Language	Code
Hungarian	5467
Icelandic	5565
Indonesian	5560
Interlingua	5547
Interlingue	5551
Inupiak	5557
Irish	5347
Italian	5566
Japanese	5647
Javanese	5669
Kannada	5760
Kashmiri	5765
Kazakh	5757
Kinyarwanda	6469
Kirghiz	5771
Kirundi	6460
Korean	5761
Kurdish	5767
Laothian	5861
Latin	5847
Latvian; Lettish	5868
Lingala	5860
Lithuanian	5866
Macedonian	5957
Malagasy	5953
Malay	5965
Malayalam	5958
Maltese	5966
Maori	5955
Marathi	5964
Moldavian	5961
Mongolian	5960
Nauru	6047
Nepali	6051
Norwegian	6061
Occitan	6149
Oriya	6164
(Afan) Oromo	6159
Panjabi	6247
Pashto; Pushto	6265
Persian	5247
Polish	6258
Portuguese	6266
Quechua	6367
Rhaeto-Romance	6459
Romanian	6461

Language	Code
Russian	6467
Samoan	6559
Sangho	6553
Sanskrit	6547
Scots Gaelic	5350
Serbian	6564
Serbo-Croatian	6554
Sesotho	6566
Setswana	6660
Shona	6560
Sindhi	6550
Singhalese	6555
Siswat	6565
Slovak	6557
Slovenian	6558
Somali	6561
Spanish	5165
Sundanese	6567
Swahili	6569
Swedish	6568
Tagalog	6658
Tajik	6653
Tamil	6647
Tatar	6666
Telugu	6651
Thai	6654
Tibetan	4861
Tigrinya	6655
Tonga	6661
Tsonga	6665
Turkish	6664
Turkmen	6657
Twi	6669
Ukrainian	6757
Urdu	6764
Uzbek	6772
Vietnamese	6855
Volapuk	6861
Welsh	4971
Wolof	6961
Xhosa	7054
Yiddish	5655
Yoruba	7161
Zulu	7267

Notes about discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface. Dust, fingerprints, or scratches on the disc may cause it to malfunction.



- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as the temperature may rise considerably inside the car.
- After playing, store the disc in its case.
- Clean the disc with a cleaning cloth. Wipe the disc from the center out.



- Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for vinyl LPs.
- Do not use the following discs.
 - A disc that has a non-standard shape (e.g., card, heart).
 - A disc with a label or sticker on it.
 - A disc that has cellophane tape or sticker adhesive on it.

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 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.

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

With multichannel audio, this high quality surround system is used in many movie theaters around the world.

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.

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).

Title (DVD only)

A collection of chapters on DVD disc. See also chapter.

Track

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

SYLVANIA

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