

User manual



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(and Model / Serial number)**



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Necesita ayuda inmediata?

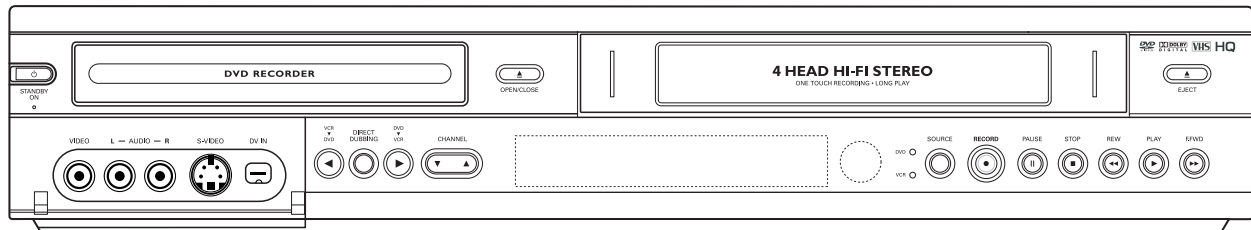
Lea primero la Guía de uso rápido o el Manual del usuario, en donde encontrará consejos que le ayudarán a disfrutar plenamente de su producto Philips. Si después de leerlo aún necesita ayuda, consulte nuestro servicio de asistencia en línea en

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**y tenga a mano el producto
(y número de model / serial)**



PHILIPS

Return your Product Registration Card today to get the very most from your purchase.

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*Proof of Purchase

Returning the enclosed card guarantees that your date of purchase will be on file, so no additional paperwork will be required from you to obtain warranty service.

*Product Safety Notification

By registering your product, you'll receive notification - directly from the manufacturer - in the rare case of a product recall or safety defect.

*Additional Benefits of Product Ownership

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PHILIPS

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and welcome to the "family!"**

Dear PHILIPS product owner:

Thank you for your confidence in PHILIPS. You've selected one of the best-built, best-backed products available today. We'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the PHILIPS "family," you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry. What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network.


Most importantly, you can count on our uncompromising commitment to your total satisfaction.


All of this is our way of saying welcome - and thanks for investing in a PHILIPS product.

P.S. To get the most from your PHILIPS purchase, be sure to complete and return your Product Registration Card at once.

Know these
safety symbols



 This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

 The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture, and objects filled with liquids, such as vases, should not be placed on this apparatus.

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.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

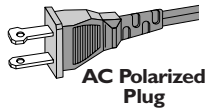
Model No. _____

Serial No. _____

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IMPORTANT SAFETY INSTRUCTIONS

- 1. Read these instructions.**
- 2. Keep these instructions.**
- 3. Heed all warnings.**
- 4. Follow all instructions.**
- 5. Do not use this apparatus near water.**
- 6. Clean only with dry cloth.**
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.**
- 8. Do not install near any heat sources** such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose** of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord** from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories** specified by the manufacturer.



- 12. Use only with the cart,** stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus** during lightning storms or when unused for long periods of time.
- 14. Refer all servicing** to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. Battery usage CAUTION** – To prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:
 - Install **all** batteries correctly, **+** and **-** as marked on the unit.
 - Do not mix batteries (**old** and **new** or **carbon** and **alkaline**, etc.).
 - Remove batteries when the unit is not used for a long time.
- 16. Apparatus shall not be exposed to dripping or splashing.**
- 17. Do not place any sources of danger on the apparatus** (e.g. liquid filled objects, lighted candles).
- 18.** This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations.
For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance : www.eiae.org.

EL 6475-E005: 04/01

LASER

Type	Semiconductor laser GaAlAs
Wave length	650~660 nm (DVD) 784~796 nm (CD)
Output Power	7 mW (DVD) 10 mW (VCD/CD)
Beam divergence	60 degree

Canada

English:

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Français:

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Class B prescrites dans le Règlement sur le Brouillage Radioélectrique Édicté par le Ministère des Communications du Canada.

This warning label is located on the outside and inside this laser product.

CAUTION	INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.
DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINANAKYMATTOAALLE LASERSATEILYLLE. ALA KATSO SATEESEEN.
WARNING!	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.

or

DANGER - Invisible laser radiation when open.
AVOID DIRECT EXPOSURE TO BEAM.

For Customer Use:

Read carefully the information located at the rear/bottom of your DVD player and enter below the Serial No. Retain this information for future reference.

Model No. DVDR3320V

Serial No. _____

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CAUTION

Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

Due to the inconsistency of disc formats provided by various disc manufacturers, your DVD system may require a playability enhancement or upgrade. As DVD technology advances, these enhancements will become common and will be easy to complete. Go to www.usasupport.philips.com for software upgrade.

'CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 OR 625 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPATIBILITY WITH THIS MODEL 525p AND 625p DVD PLAYER, PLEASE CONTACT OUR CUSTOMER SERVICE CENTRE'.

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Introduction

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference.

Symbol Used in this Manual



Indicates hazards likely to cause harm to the unit itself or other material damage.


Note: Indicates special notes and operating features.

Tip: Indicates tips and hints for making the task easier.

A section whose title has one of the following symbols are applicable only to those discs represented by the symbol.

- +RW** DVD+RW disc
- +R** DVD+R disc
- DVD** DVD-Video disc
- ACD** Audio CDs
- JPEG** JPEG files

About the Symbol Display

“  ” may appear on your TV display during operation and indicates that the function is not permitted by this unit or the disc.

Notes on Discs

Handling Discs

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints do not get on the surface. Never stick paper or tape on the disc.

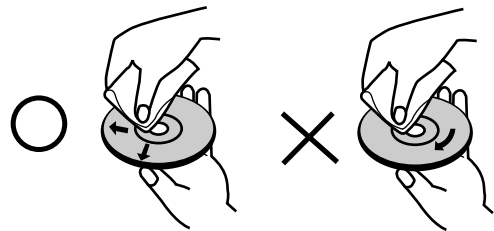


Storing Discs

After playing, store the disc in its case. Do not expose the disc to direct sunlight or sources of heat and never leave it in a parked car exposed to direct sunlight.

Cleaning Discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.



Do not use strong solvents such as alcohol, benzene, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

Moisture Condensation

Never operate this product immediately after moving it from a cold location to a warm location. Leave it for two or three hours without operating it. If you use this product in such a situation, it may damage discs/tapes and internal parts.

Recordable and Playable Discs



DVD+RW (DVD+ ReWritable)

- These Discs can be recorded on repeatedly. Recordings can be erased, then you can record again on the same Disc.
- Playable on DVD+RW compatible players (automatically finalization)
- The edited contents are playable on DVD+RW compatible players only after finalization.
- Recordings can be edited the title/chapter



DVD+R (DVD + Recordable)

- These Discs can be recorded only once. After you finalize a DVD+R, you cannot record on it or edit it any more.
- Playable on DVD+R compatible players (after finalization)
- Any edited contents are not be compatible on DVD+R compatible players. (Hide, chapter combine, added chapter mark, etc.)
- Limited title/chapter editing features.

Recommended recordable DVD discs

DVD+R	DVD+RW
SONY (2.4x, 4x, 8x, 16x)	SONY (2.4x)
TDK (4x)	TDK (2.4x)
Mitsubishi (4x, 8x)	Ricoh (2.4x)
Ricoh (2x, 4x, 8x)	HP (2.4x, 4x)
-	Philips (4x)

Playable Discs



DVD (8 cm / 12 cm disc)

- Discs such as movies that can be purchased or rented



Audio CD (8 cm / 12 cm disc)

- Music CDs or CD-Rs/CD-RWs in music CD format that can be purchased



CD-R/CD-RW (8 cm / 12 cm disc)

- CD-R/CD-RW discs that contain audio titles, MP3, Window Media™ Audio or JPEG files.

Notes:

- Depending on the conditions of the recording equipment or the CD-R/RW (or DVD+R/RW) disc itself, some CD-R/RW (or DVD+R/RW) discs cannot be played on the unit.

- Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
- Do not use irregularly shaped CDs (e.g., heart-shaped or octagonal). Doing so may result in malfunctions.
- Depending on the recording software & the finalization, some recorded discs (CD-R/RW or DVD+R/RW) may not be playable.
- 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 Recorder'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.)
- Multi session DVD containing windows Media™ Audio files may not be supported.
- Open session disc does not be supported.
- This unit does not support PC data.
- This unit does not support an unfinalized disc with closed session.

Region code of the recorder and DVDs



This recorder is designed and manufactured for playback of Region 1 encoded DVD software.

The region code on the labels of some DVD discs indicates which type of the recorder can play those discs. This unit can play only DVD discs labeled 1 or ALL. If you try to play any other discs, the message "Incorrect region code. Can't play back" will appear on the TV screen. Some DVD discs may not have a region code label even though their playback is prohibited by area limits.

Notes on DVDs

Some playback operations of DVDs may be intentionally fixed by software manufacturers. As this unit plays DVDs according to disc content designed by the software manufacturer, some playback features of the unit may not be available or other functions may be added.

Refer also to the instructions supplied with the DVDs. Some DVDs made for business purposes may not be played on the unit.

Restrictions on video recording

You cannot record copy-protected video using this 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.

Copyright

- Recording equipment should be used only for lawful copying and you are advised to check carefully what is lawful copying in the area in which you are making a copy. Copying of copyright material such as films or music is unlawful unless permitted by a legal exception or consented to by the rights owner.
- 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.

Notice for Progressive Scan Use

CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING YOUR TV SET COMPATIBILITY WITH THIS MODEL 525p DVD+VCR RECORDER, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.

Disc-related terms

DVD+R / DVD+RW

DVD +R is two different standard for recordable DVD drives and discs. This format allows information to be recorded onto the DVD disc only once. DVD +RW is two standard for re-writable media, meaning the DVD content can be erased and re-recorded. Single-sided discs can hold 4.7 GB and double-sided discs hold twice as much.

MP3

MP3 is a popular compression format used for digital audio files that yields very high near-CD quality.

Window Media™ Audio

Windows media audio file. A type of coding / decoding developed by Microsoft Corp.

JPEG

Joint Pictures Expert Group. JPEG is a compressed file format that allows you to save images with no limit on the number of colors.

Title (DVD video discs only)

A title is generally a distinct section of a DVD disc. For example the main feature could be title 1, a documentary describing how the film was made could be title 2, and cast interviews could be title 3. Each title is assigned a reference number enabling you to locate it easily.

Chapter (DVD video discs only)

A chapter is a segment of a title such as a scene in a film or one interview in a series. Each chapter is assigned a chapter number, enabling you to locate the chapter you want. Depending on the disc, chapters may not be recorded.

Track

A distinct element of audiovisual information, such as the picture or sound track for a specific language (DVD), or a musical piece on a video or audio CD. Each track is assigned a track number, enabling you to locate the track you want. DVD discs allow one track of video (with multiple angles) and several tracks of audio.

About the Remote Control

Operation Range

Point the remote control at the remote sensor and press the buttons.

Distance: About 23 ft (7 m) from the front of the remote sensor.

Angle: About 30° in each direction of the front of the remote sensor.

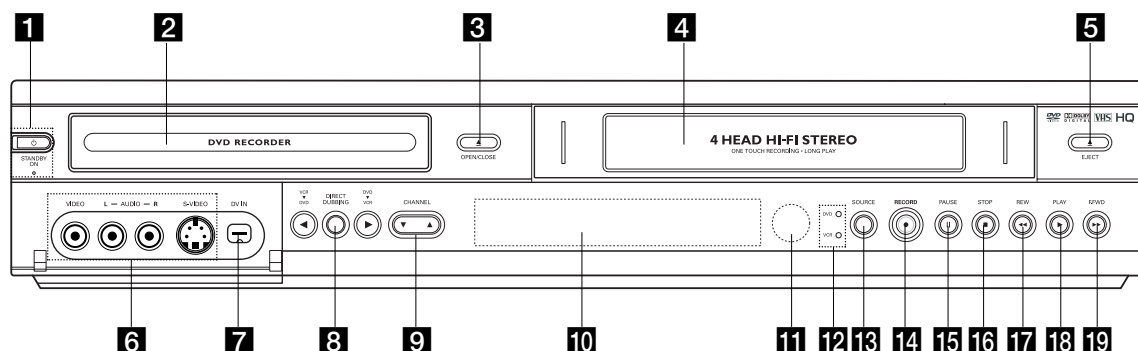
Battery installation

Detach the battery cover on the rear of the remote control, and insert two (R6/AA) size batteries with ⊕ and ⊖ aligned correctly.



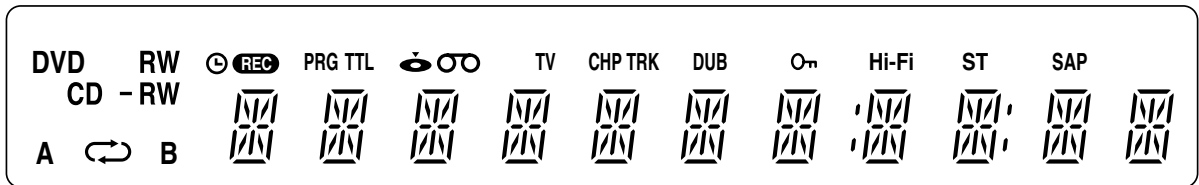
Do not mix old and new batteries and never mix different types of batteries such as standard, alkaline, etc.

Front Panel



- 1 POWER button and indicator**
Switches the Recorder ON and OFF.
Lights green when the Recorder is turned on.
- 2 Disc Tray (DVD deck)**
Insert a disc here.
- 3 OPEN/CLOSE (▲)**
Opens or closes the disc tray.
- 4 Cassette Compartment (VCR deck)**
Insert a video cassette here.
- 5 EJECT (▲)**
Ejects the tape in the VCR deck.
- 6 INPUT 2**
- VIDEO /AUDIO (Left/Right)
Connect the audio/video output of an external source (Audio system, TV/ Monitor, VCR, Camcorder, etc.).
- S-VIDEO IN
Connect the S-Video output of an external source (TV/ Monitor, VCR, Camcorder, etc.).
- 7 DV IN**
Connect the DV output of a digital camcorder.
- 8 DIRECT DUBBING**
Press to copy DVD to VCR (or VCR to DVD).
- 9 CHANNEL (▼ / ▲)**
Scans up or down through memorized channels.
- 10 Display window**
Shows the current status of the Recorder.
- 11 Remote Sensor**
Point the Recorder Remote Control here.
- 12 DVD/VCR indicator**
Indicates the active DVD or VCR deck.
- 13 SOURCE**
Toggles control between the DVD deck and the VCR deck.
- 14 RECORD (●)**
Starts recording.
Press repeatedly to set the recording time
- 15 PAUSE(II)**
Pause playback or recording temporarily.
Press repeatedly for frame-by-frame playback.
- 16 STOP (■)**
Stops playback.
- 17 REW (◀◀)**
- DVD: Skip to beginning of current chapter or track, press twice in quick successions to go to previous chapter or track. Press and hold button for about two seconds to search backward.
- VCR: Rewinds the tape during the stop mode or for fast backward picture search.
- 18 PLAY (▶▶)**
To play back a disc or tape.
- 19 F.FWD (▶▶▶)**
DVD: Skip to next chapter or track. Press and hold for two seconds for a fast forward search.
VCR: Advances the tape during the STOP mode or for fast forward picture search.

Function Display Window



DVD RW
CD -RW

Indicates the type of disc loaded.

A ↻ B

Indicates repeat mode.



Indicates when the recorder is in timer recording or a timer recording is programmed.



The recorder is recording.

PRG

Programmed playback active.

TTL

Indicates current title.



A disc is inserted in the DVD deck.



A VHS tape is inserted in the VCR deck.

TV

Indicates that TV mode is active.

CHP TRK

Indicates current chapter or track number

DUB

Indicates that a DVD to VCR (or VCR to DVD) dubbing is in progress.



Indicates when the Recorder is Locked.

Hi-Fi

Indicates when the Recorder is playing a tape in Hi-Fi.

ST

Indicates a stereo broadcast is being received.

SAP

Indicates when a SAP BILINGUAL broadcast is being received.



Indicates clock, total playing time, elapsed time, remaining time, title number, chapter/track number, channel, etc.

Remote Control



AUDIO

Selects an audio language (DVD) or an audio channel (CD).

REW / FWD (◀▶)

- DVD: Search backward or forward.
- VCR: Rewinds/Advances the tape during the STOP mode, for fast reverse/ forward picture search.

CHAPTER

Inserts a chapter marker when playing/ recording.

CLEAR

Removes a mark on the Marker Search menu.

LIST/ DISC MENU

Accesses menu on a DVD disc, Title List or Playlist menu.

DISPLAY

Accesses On-Screen Display. Displays information of current status.

D.DUBBING

Press to copy DVD to VCR (or VCR to DVD).

DVD

Select the Recorder's function mode to DVD.

OPEN/CLOSE

-Opens and closes the disc tray.
-Ejects the tape in the VCR deck.

OK

Confirms menu selections.

CHILD LOCK

Locks/unlocks front panel buttons.

MARKER

Marks any point during playback.

⏻ (POWER)

Turns Recorder ON and OFF.

⏸ (PAUSE/STEP)

Pause playback or recording temporarily. Press repeatedly for frame-by-frame playback.

▶ (PLAY)

Starts playback.

REPEAT

Selects play mode.

● (RECORD)

Starts recording. Press repeatedly to set the recording time.

REC MODE

Selects the recording mode:
- DVD : SP, LP, EP or XP.
- VCR : SP or SLP.

↶ (RETURN)

- Removes the menu.
- Displays the menu of a video CD with PBC.

■ (STOP)

Stops playback or recording.

SEARCH

Displays Marker Search menu.

SYSTEM MENU

Accesses or removes the Setup menu.

◀ / ▶ (SKIP)

Go to next chapter or track. Returns to beginning of current chapter or track or go to previous chapter or track.

TITLE

Displays the disc's Title menu, if available.

THUMBNAIL

Selects a thumbnail picture for the current title for use in the Title List or Chapter List menu.

TIMER

Displays Timer Record menu.

TV/VIDEO

To view channels selected by the VCR tuner or by the TV tuner.

VCR

Select the Recorder's function mode to VCR.

ZOOM

Enlarges DVD video image.

0-9 numerical buttons

Selects numbered options in a menu.

◀ ▶ ▲ ▼ (left/right/up/down)

Selects menu options.

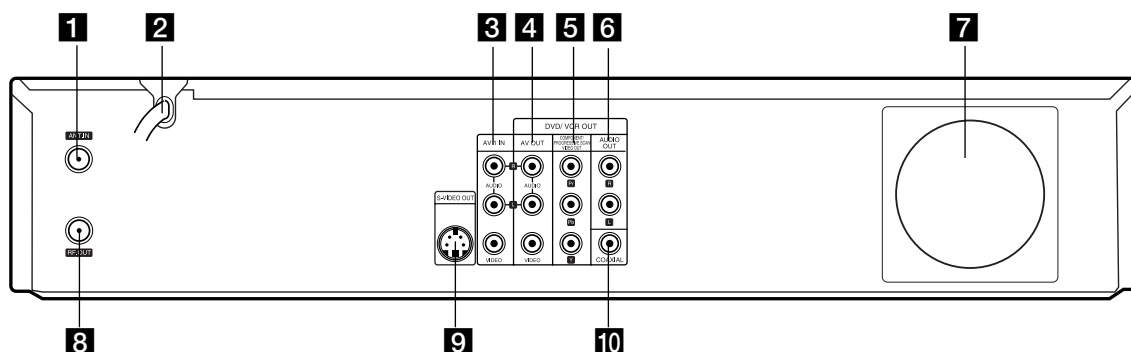
▲/▼: Selects a program.

Adjusts manually the tape's picture onscreen.

LOCK function

The Lock feature disables the front panel buttons to prevent children from tampering with this unit. Simply press CHILD LOCK on the remote control to toggle this feature on and off.

Rear Panel



- | | |
|---|--|
| 1 ANT.IN
Connect the antenna to this terminal. | 6 AUDIO OUT (Left/Right)
Connect to a TV or other equipment with audio inputs. |
| 2 AC Power Cord
Plug into the power source. | 7 Cooling fan |
| 3 AV 1 IN (VIDEO IN /AUDIO IN (Left/Right))
Connect the audio/video output of an external source (Audio system, TV/Monitor, VCR, Camcorder). | 8 RF. OUT
Connect to a TV with RF coaxial inputs. |
| 4 AV OUT (VIDEO OUT/AUDIO OUT (Left/Right))
Connect to a TV with video and audio inputs. | 9 S-VIDEO OUT
Connect to a S-Video Input on TV. |
| 5 COMPONENT/PROGRESSIVE SCAN VIDEO OUT (Y Pb Pr)
Connect to a TV with Y Pb Pr inputs. | 10 COAXIAL (DIGITAL AUDIO OUT jack)
Connect to digital (coaxial) audio equipment. |

Caution

Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.

Hookup and Settings

Depending on your TV and other equipment there are various ways you can connect the recorder. Please refer to the manuals of your TV, VCR, Stereo System or other devices as necessary for additional connection information.

Notes:

- Make sure the Recorder is connected directly to the TV and tune the TV to the correct video input channel.
- Do not connect the Recorder's AUDIO OUT jack to the phono in jack (record deck) of your audio system. Do not connect the Recorder via another VCR. The DVD image could be distorted by the copy protection system.
- The picture and sound of a nearby TV, VCR, or radio may be distorted during playback. Position the units away from each other or turn off the unit after removing the disc.

Connecting an Antenna or Cable TV

1 Antenna:

Disconnect the antenna from the rear of the TV and identify the antenna cable. If it is a round 75 ohm coaxial cable connect it directly to the jack marked ANT.IN on your Recorder. If your antenna cable is flat connect it to a 300-ohm to 75-ohm antenna adaptor (not supplied) and slip the adaptor over the ANT.IN jack. Don't attempt to screw it into to the Recorder.

2 Cable TV:

If your cable connection has no converter or descrambler, unscrew the cable from your TV and attach it to the ANT.IN jack on the Recorder. If a converter is required connect a coaxial cable from the wall jack to the IN connector on the converter, and a coaxial cable from the OUT connector on the converter to the ANT.IN on your Recorder. This cable hookup permits both TV and Recorder operation.

To view or record a CATV channel

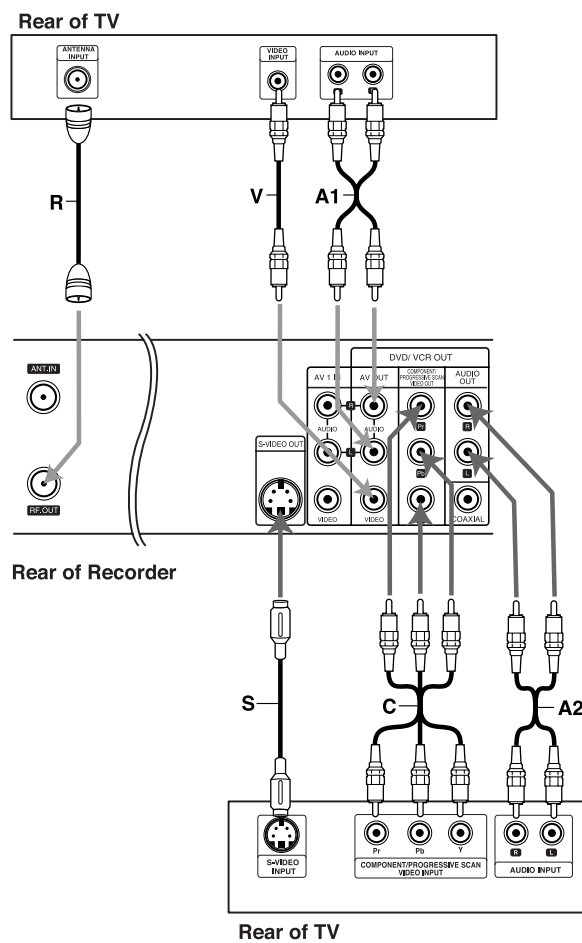
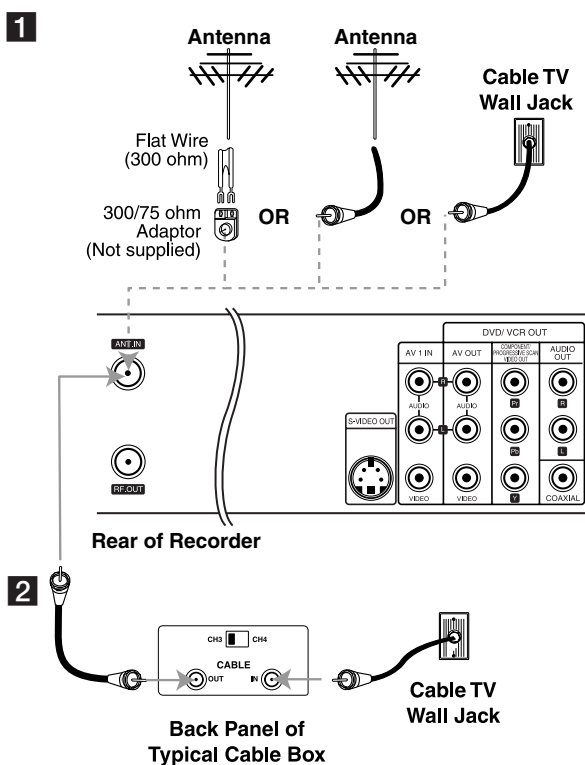
1. Tune the TV to the Recorder output channel (CH 3 or 4).
2. Set the Recorder channel selector to the cable output channel. (Example: CH3)
3. Select a channel using the cable converter.

Notes:

- With this connection, you cannot record one program while viewing another.
- If you are using a cable box to tune channels, it is not necessary to do Auto Channel Set.

Connections to your TV

Make one of the following connections, depending on the capabilities of your TV.



RF coaxial connection

Connect the RF.OUT jack on the Recorder to the antenna in jack on the TV using the supplied 75-ohm Coaxial Cable (R).

How to set the Recorder's RF output channel

1. When the Recorder is turned off, press and hold CHANNEL (▼/▲) on the front panel for more than five seconds. [RF-03] or [RF-04] appears in the display window.
2. Press CHANNEL (▼/▲) to change the RF output channel (RF-03 or RF-04).
3. Tune the TV to this channel.

Video connection

Connect the DVD/VCR VIDEO OUT jack on the Recorder to the video in jack on the TV using the video cable supplied (V).

Note:

If you use this connection, set the TV's source selector to VIDEO.

S-Video connection

Connect the S-VIDEO OUT jack on the Recorder to the S-Video in jack on the TV using the optional S-Video cable (S).

Component Video / Progressive Scan connection

If your television is a high-definition or "digital ready" television, you may take advantage of the Recorder's progressive scan output for the highest video resolution possible.

Connect the COMPONENT/PROGRESSIVE SCAN VIDEO OUT jacks on the Recorder to the corresponding in jacks on the TV using an optional Y Pb Pr cable (C).

Notes:

- Set Progressive Scan option to [ON] in the setup menu, see page 20.
- Progressive Scan does not work with the RF, Audio/Video or S-Video connections.
- If your TV does not accept the Progressive Scan format, the picture will appear scrambled.
- When you use Component Video signal, set the Progressive Scan to [OFF] on the setup menu.

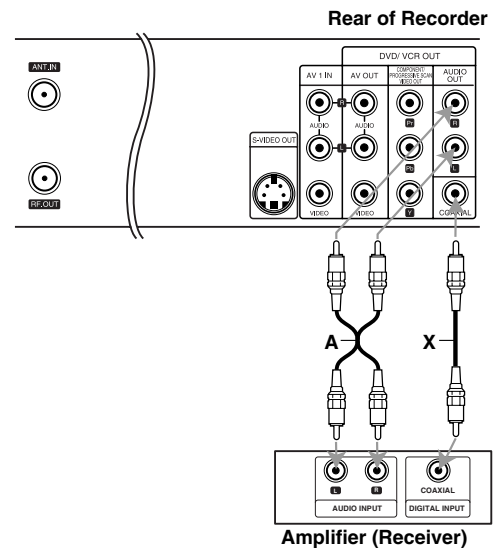
Audio connection

Connect the Left and Right DVD/VCR AUDIO OUT jacks on the Recorder to the audio left/right in jacks on the TV using the supplied audio cables (A1 or A2).

Connection to an Amplifier

Connecting to an amplifier equipped with two channel analog stereo or Dolby Pro Logic II/Pro Logic

Connect the Left and Right AUDIO OUT (or DVD/VCR AUDIO OUT) jacks on the Recorder to the audio left and right in jacks on your amplifier, receiver, or stereo system using the audio cables (A) supplied.



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

Connecting to an amplifier equipped with two channel digital stereo (PCM) or to an Audio/Video receiver equipped with a multi-channel decoder (Dolby Digital™, MPEG 2, or DTS)

1. Connect one of the Recorder's DIGITAL AUDIO OUT jacks (COAXIAL X) to the corresponding in jack on your amplifier. Use an optional digital (COAXIAL X) audio cable.
2. You will need to activate the Recorder's digital output. (See [Audio Settings] on page 21).

Digital Multi-channel sound

A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video receiver that supports one or more of the audio formats supported by your Recorder (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

Caution:

Due to the DTS Licensing agreement, the digital output will be in DTS digital out when DTS audio stream is selected.

Notes:

- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- Six Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder.
- To see the audio format of the current DVD in the on-screen display, press AUDIO.
- This Recorder does not perform internal (2 channel) decoding of a DTS sound track. To enjoy DTS multi channel surround, you must connect this Recorder to a DTS compatible receiver via one of this Recorder's digital audio outputs.

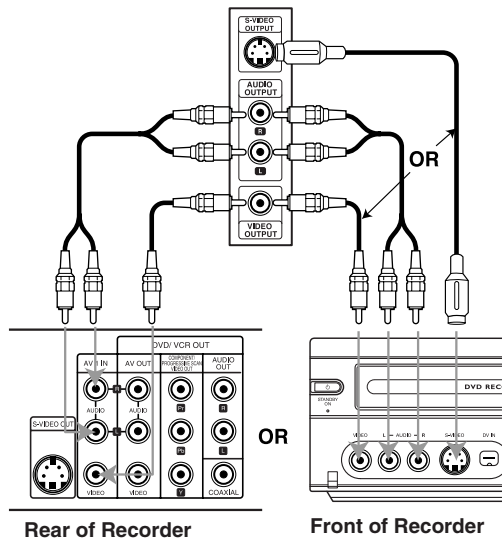
Accessory Audio/Video (A/V) Connections to Recorder

Connect the AV 1 IN or AV 2 IN jacks on the Recorder to the audio/video out jacks on your accessory component, using the optional audio/video cables. (Refer to page 37 for [Recording from External Components].)

Note:

If you use the S-VIDEO IN jack on the front panel, the VIDEO IN jack on the front panel is not available.

Jack panel of Accessory Component (VCR, Camcorder, etc.)

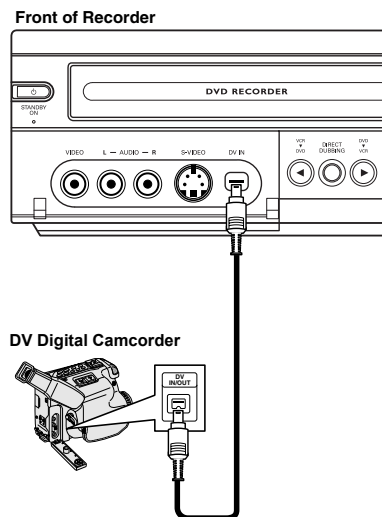


Connecting a Digital Camcorder

Use a DV cable (not supplied) to connect the DV in/out jack of your DV Digital Camcorder to the front panel DV IN jack of this Recorder.

Note:

This jack is for connection to DV equipment only. It is not compatible with digital satellite tuners or D-VHS video decks.



Initial Settings

In this menu system, there are several ways to customize the settings provided. Most menus consist of three levels to set up the options, but some require greater depth for the variety of settings.

General Operation

1. Press SYSTEM MENU and the Setup menu appears.
2. Use ▲ / ▼ to select the desired option.
3. While the desired item is selected, press ► to move to the second level.
4. Use ▲ / ▼ to select the second desired option.
5. Press ► to move to the third level.
6. Use ▲ / ▼ to select the desired setting then press OK to confirm your selection.
Some items require additional steps.
7. Press SYSTEM MENU to exit the Setup menu.

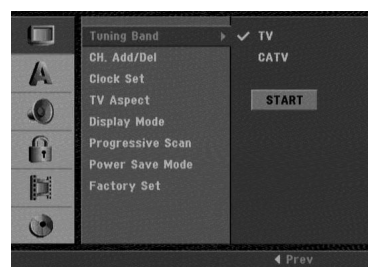
Note:

Press ◀ to go back to the previous level.

General Settings

Tuning Band Select

1. Select the [Tuning Band] option then press ►.
2. Use ▲ / ▼ to select the tuning band (TV or CATV) option then press OK.
TV: If you are using a standard antenna to receive channels.
CATV: If you are using basic cable to receive channels.



Auto Channel Set

Connect the Recorder to the desired type of antenna or cable TV system as shown on page 15. This Recorder is equipped with a frequency synthesized tuner capable of receiving up to 181 channels. These include VHF channels 2-13, UHF channels 14-69 and CATV channels 1-125.

1. Select the [Tuning Band] option.
2. Use ► / ▲ / ▼ to select [START] icon.
3. Press OK to begin the channel search.
The tuner will automatically cycle through all available channels in the area and place them in the tuner's memory.

Note:

After the Auto Channel Set proceeding is complete, make sure the Tuning Band is set appropriately (TV or CATV) on tuning band, follow steps 1~2 as shown previous (Tuning Band Select) to choose the correct Tuning Band (TV or CATV).

To Add or Erase Channels from Memory

This feature allows you to add to or erase channels from memory manually.

1. Select the [CH. Add/Del] option.
2. Press ► to move to the third level. [Edit] icon is highlighted.
3. Press OK and the Channel Edit menu appears.



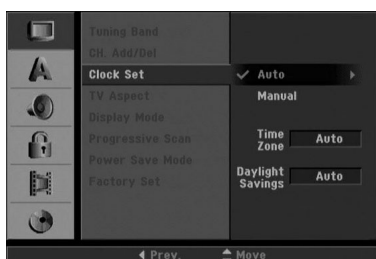
4. Use ▲ / ▼ or number buttons to select a channel to add or delete then press ►. [Add] or [Delete] icon is highlighted.
5. Press OK to confirm your setting.
6. Repeat steps 4-5 to add or erase additional channels.
7. Press SYSTEM MENU or RETURN (↵) to exit the menu.

Clock Set

1. Select the [Clock Set] option.
2. Press ► to move to the third level.

Auto

The Auto option is set at the factory. In the Auto option, the Recorder looks for a channel carrying XDS (Extended Data Services) information. XDS updates the clock using the Coordinated Universal Time.



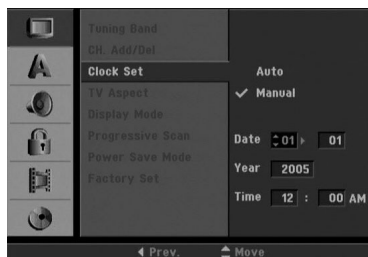
1. Use ▲ / ▼ to choose your Time Zone manually. When Timezone is set to Auto, the Recorder will use XDS information to determine the proper setting.
2. Use ► to choose the [Daylight Savings] option. Use ▲ / ▼ to choose Auto, On, or Off. When it is set to Auto, the Recorder will use XDS information to determine the proper setting.
3. Press OK to confirm your setting.

Note :

The Auto Clock Feature enables the Recorder to set up the clock when the Recorder is turned off.

Manual

If your local TV station does not send date and time information, or sends incorrect information, you can set the clock manually.



1. Enter the necessary information for year, date and time.
 - ◀ / ▶ (left/right): Moves the cursor to the previous or next column.
 - ▲ / ▼ (up/down): Changes the setting at the current cursor position.
2. Press OK to confirm your setting.
3. Press SYSTEM MENU to exit the Setup menu.

TV Aspect

Selects the aspect ratio of the connected TV (4:3 standard or 16:9 wide).

- [4:3] Select this when connecting to a 4:3 screen TV. When you select [4:3], set [Display Mode] below.
- [16:9] Select this when connecting to a wide-screen TV or TV with a wide mode function.



Display Mode

Selects how to display a wide picture on the screen when [4:3] is selected in [TV Aspect].

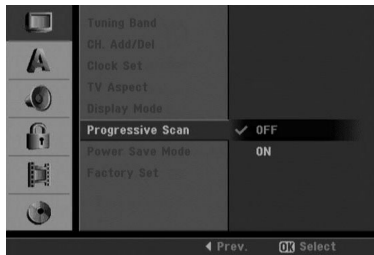
- [Letter Box] Displays a wide picture with bands on the upper and lower portions of the screen.
- [Pan Scan] Automatically displays a wide picture on the entire screen and cuts off the portions that do not fit.



Progressive Scan

Progressive Scan Video provides the highest quality pictures with less flickering.

- [ON]** : Using the COMPONENT/PROGRESSIVE SCAN VIDEO OUT jacks for connection to a TV or monitor that is compatible with a progressive scan signal.
- [OFF]** : Using the COMPONENT/PROGRESSIVE SCAN VIDEO OUT jacks, but are connecting the Recorder to a standard (analog) television.

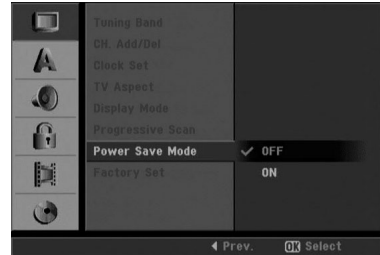


Caution

Once the setting for Progressive Scan output is entered, an image will only be visible on a Progressive Scan compatible TV or monitor. If you set Progressive Scan to [ON] in error, you must reset the Recorder. First, remove the disc or tape in the Recorder. Next, press STOP (■) and hold it for five seconds before releasing it. The video output will be restored to the standard setting, and a picture will once again be visible on a conventional analog TV or monitor.

Power Save Mode

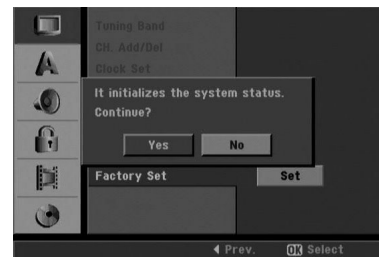
Set [Power Save Mode] to [ON] to place your Recorder into an economic power save mode.



Factory Set

You can reset the Recorder to its original factory settings. Some options cannot be reset (Rating, Set Password and Area Code).

1. Select the [Factory Set] option.
2. Press ► to select [Set] then press OK. The Initialize menu will appear.



3. Select [Yes] and press OK.

Language Settings

Display Menu

Select a language for the Setup menu and information display.



Disc Menu/Audio/Subtitle

[Original] : Refers to the original language in which the disc was recorded.

[Other code] : To select another language, press number buttons then OK to enter the corresponding 4-digit number according to the language code list in the reference chapter (see page 48).

If you enter the wrong language code, press CLEAR.

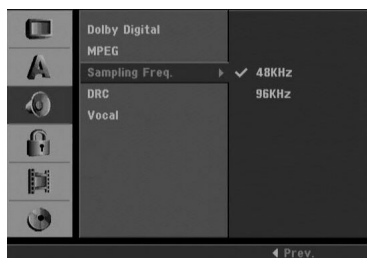
[OFF] (for Disc Subtitle) : Turn off Subtitle.



Sampling Freq. (Frequency)

If your receiver or amplifier is NOT capable of handling 96 kHz signals, select 48 kHz. When this choice is made, this unit automatically converts any 96 kHz signals to 48 kHz so your system can decode them. If your receiver or amplifier is capable of handling 96 kHz signals, select 96 kHz. When this choice is made, this unit passes each type of signal through without any further processing.

Check the documentation for your amplifier to verify its capabilities.



Audio Settings

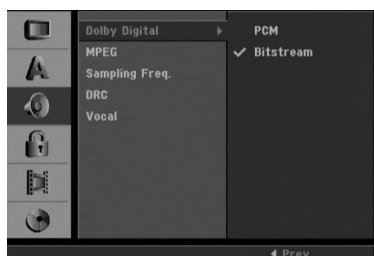
Each DVD disc has a variety of audio output options. Set the Recorder's Audio Output according to the type of audio system you use.

Dolby Digital / DTS / MPEG

[Bitstream]: Select [Bitstream] if you connect the DVD+VCR's DIGITAL AUDIO OUT jack to an amplifier or other equipment with a Dolby Digital, DTS or MPEG decoder.

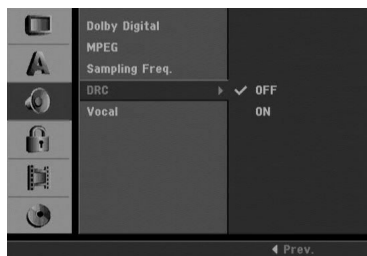
[PCM] (for Dolby Digital / MPEG): Select when connected to a two-channel digital stereo amplifier. DVDs encoded in Dolby Digital or MPEG will be automatically downmixed to two-channel PCM audio.

[OFF] (for DTS): If you select [OFF], the DTS signal is not output through the DIGITAL AUDIO OUT jack.



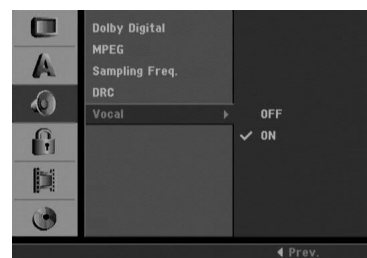
DRC (Dynamic Range Control)

With the DVD format, you can hear a program's soundtrack in the most accurate and realistic presentation possible, thanks to digital audio technology. However, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). This allows you to listen to a movie at a lower volume without losing clarity of sound. Set DRC to [ON] for this effect.



Vocal

Set Vocal to [ON] only when a multi-channel karaoke DVD is playing. The karaoke channels on the disc will mix into normal stereo sound.



Lock (Parental Control) Settings

Rating

Blocks playback of rated DVDs based on their content. Not all discs are rated.

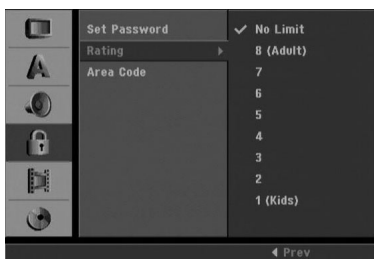
1. Select [Rating] option then press ►.
2. To access the Rating, Password and Area Code features, you must input the 4-digit security code you created.

If you have not yet entered a security code you are prompted to do so. Input a 4-digit code and press OK. Enter it again and press OK to verify. If you make a mistake before pressing OK, press CLEAR.

3. Select a rating from 1 to 8 using the ▲ / ▼ buttons.

[1]-[8] : Rating one (1) has the most restrictions and rating eight (8) is the least restrictive.

[No Limit] : If you select [No Limit], parental control is not active and the disc plays in full.



4. Press OK to confirm your rating selection, then press SYSTEM MENU to exit the menu.
5. Press OPEN/CLOSE (▲) to activate parental control.

Note:

If you set a rating for the recorder, all disc scenes with the same rating or lower are played. Higher rated scenes are not played unless an alternate scene is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, playback stops. You must enter the 4-digit password or change the rating level in order to play the disc.

Set Password

You can enter or change password.

1. Select [Set Password] option then press ►.



2. Follow step 2 as shown [Rating]. To change the password, select the [Change], press OK and input the new 4-digit code then press OK. Input it again to verify.
3. Press SYSTEM MENU to exit the menu.

If you forget your password

If you forget your password you can clear it using the following steps:

1. Press SYSTEM MENU to display the Setup menu.
2. Input the 6-digit number [210499]. The message appears, select [Yes] then press OK. The security code is cleared.
3. Enter a new code as described above.

Area Code

Enter the Area Code whose standards were used to rate the DVD video disc, based on the list in the reference chapter (see page 48).



1. Select [Area Code] option then press ►.
2. Follow step 2 as shown [Rating].
3. Select the first character using ▲ / ▼ buttons.
4. Shift the cursor using ► buttons and select the second character using ▲ / ▼ buttons.
5. Press OK to confirm your area code selection, then press SYSTEM MENU to exit the menu.

Recording Settings

Disc Record Mode

You can set the picture quality for recording; XP (Excellent quality), SP (Standard quality), LP (Low quality), EP (Extend quality).



1. Select the [Disc Record Mode] option then press **▶**.
2. Use **▲ / ▼** to select a desired Disc Record Mode (XP, SP, LP or EP).
3. Press OK to confirm your selection, then press SYSTEM MENU to exit the menu.

VCR Record Mode

You can set the picture quality for VCR recording; SP (Standard Play), SLP (Super Long Play).



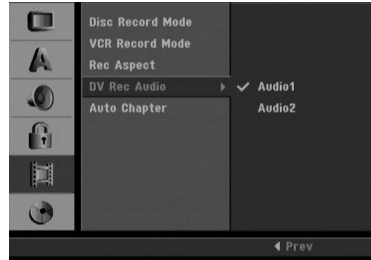
Record Aspect

When DVD recording, you can set the recording aspect ratio to suit the material you're recording (16:9 or 4:3).



DV Record Audio

You need to set this if you have a camcorder using 32kHz/12-bit sound connected to the front panel DV IN jack. Some digital camcorders have two stereo tracks for audio. One is recorded at the time of shooting; the other is for overdubbing after shooting. On the Audio 1 setting, the sound that was recorded while shooting is used. On the Audio 2 setting, the overdubbed sound is used.



Auto Chapter

During recording, chapter markers are added automatically at fixed intervals. You can set this interval to 5 minutes, 10 minutes or 15 minutes. To turn off automatic chapter marking, select [None].



Disc Settings

Initialize

If you load a completely blank disc, the [Initialize] menu will appear. Select [Yes] then press OK. The Recorder will initialize the disc.

Also, you can reformat the DVD+RW.

1. Select [DISC] > [Initialize] > [Start] and press OK.
2. Select [Yes] and press OK.
All contents will be erased and the disc will be formatted.



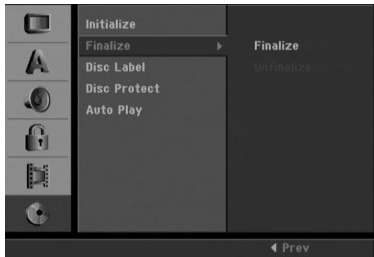
Finalize

Finalizing a disc enables it to be played on a regular DVD player or computer equipped with DVD-ROM drives.

Finalizing a Video mode disc creates a menu screen for navigating the disc. This is accessed by pressing LIST/ DISC MENU or TITLE.

Caution

Once you have finalized a DVD+R disc, you cannot edit or record anything else on that disc except DVD+RW.



1. Select [DISC] > [Finalize] > [Finalize] and press OK.
2. Select [Yes] then press OK.
Finalization can take up to 3-4 minutes or more depending on the type of disc, how much is recorded on the disc, and the number of titles on the disc.

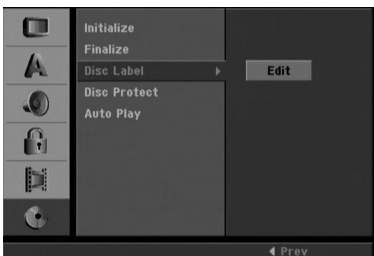
Tips:

- You cannot unfinalize a DVD+R disc.
- If [Disc Protect] option is set to [ON], the finalize is not available. To finalize, set [Disc Protect] option to [OFF].

Disc Label

Use the Disc Label feature to enter a name for the disc. This name appears when you load the disc and when you display disc information on-screen.

- The Disc label can be up to 32 characters long.
- For discs formatted on a different Recorder, you will see only a limited character set.



1. Select [DISC] > [Disc Label] > [Edit] and press OK.
Keyboard menu appears.
2. To enter characters, see page 42.

Disc Protect

Depending on the type of disc you are using, Disc Protect allows you to preserve your recordings in a variety of ways:

- DVD+RW : Prevents editing, erasing, regular recording, or overwriting of existing recordings.
- DVD+R : Prevents editing, regular recording or erasing of existing recordings.

Note:

If you need to unlock a disc to make edits, select [OFF].




AutoPlay

When you load a DVD with AutoPlay turned on, the Recorder will bypass the Disc menu and trailers and start playing the movie automatically. Set [AutoPlay] to [ON] or [OFF].



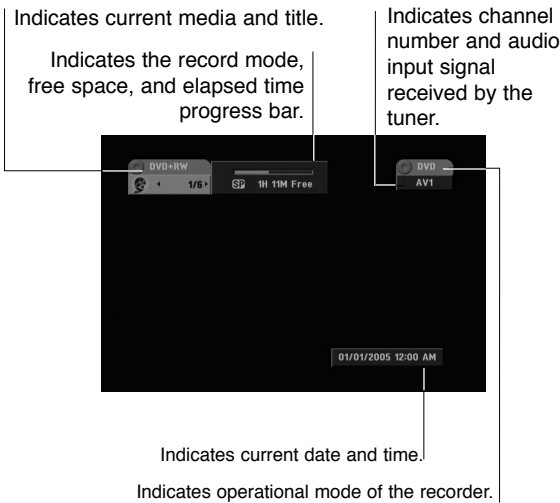
General Explanation of On-Screen Display

Some DVDs require specific operation or allow only limited operation during playback. When this occurs,  is displayed, action prohibited or not available.

Displaying Information While Watching TV

While watching TV, press DISPLAY to display/remove the information displayed on-screen.

e.g., when DVD+RW is inserted.



Changing TV Audio Channel

Some TV programs are broadcast with both a main and a Secondary Audio Program (SAP). You can change the TV audio. Press AUDIO repeatedly to change the TV audio, according to Broadcast audio signal as shown below.

- STEREO+SAP Audio Signal
Stereo → SAP → Mono → Stereo
- STEREO Audio Signal
Stereo → L → R → Mono → Stereo
- SAP Audio Signal
Mono → SAP → Mono
- MONO Audio Signal
Mono

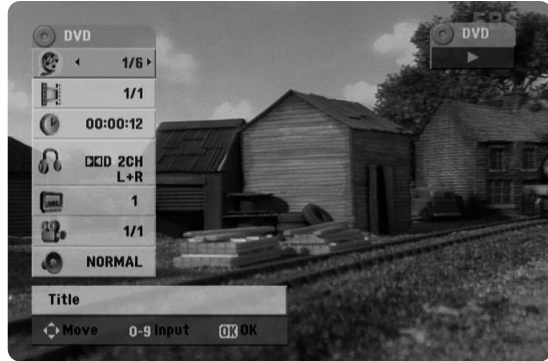
The current audio channel is displayed on-screen.

- If SAP is selected, but there is no SAP channel being broadcast, you will still hear the main audio (Mono or Stereo) channel.
- If the sound is poor quality when set to Stereo, you can often improve it by changing to Mono.
- When an external input is selected, the audio channel can be switched only to Stereo.

Displaying Disc Information on-screen

You can display various information about the disc or tape loaded on-screen. Some items can be changed using the menu.

1. Press DISPLAY to show various playback information.
The items displayed differ depending on the disc type or playing status.



2. You can select an item by pressing \blacktriangle / \blacktriangledown and change or select the setting by pressing \blacktriangleleft / \blacktriangleright . For details about each item, see the pages in parentheses.
 - [Title]: Current title (or track) number/total number of titles (or tracks) (page 27)
 - [Chapter]: Current chapter number/total number of chapters (page 27)
 - [Time]: Elapsed playing time (page 28)
 - [Audio]: Selected audio language (DVD VIDEO only) or audio channel (page 29)
 - [Subtitle]: Selected subtitle (page 29)
 - [Angle]: Selected angle/total number of angles (page 29)
 - [Sound]: Selected sound mode (page 29)

Note:





If no button is pressed for 7 seconds, the on-screen display disappears.

Playback

VCR Tape Playback

Press **VCR** button to select the device to be operated.

Basic Instructions

1. Insert a pre-recorded video cassette.
The  indicator lights and the Recorder powers on automatically.
2. If a tape without a safety tab is inserted the unit starts playback automatically.
If not, press **PLAY** (.
3. Press **STOP** () to stop playback. **STOP** appears on the TV screen. If the tape reaches the end before you press **STOP** () the Recorder automatically stops, rewinds and ejects the tape.

Note:





It is not necessary to select the tape speed for playback because it is automatically selected by the Recorder. Also, during playback the TV/VCR selector switches to VCR mode automatically.

Auto Tracking

Automatic tracking adjusts the picture to remove snow or streaks and beings when:

- A tape is played for the first time.
- The tape speed (SP, LP, SLP) changes.
- Streaks or snow appear due to scratches on the tape.

Manual Tracking

To manually adjust the tracking use the / buttons on the remote control or **CHANNEL** (/) on the front panel during playback.




Notes:

- Vertical jitter requires a very fine adjustment.
- Tracking is automatically reset to normal when the tape is ejected or the power cord is unplugged for more than 3 seconds.

Search

This function lets you visually search for a tape section in either direction: forward and reverse. During the high-speed picture search modes, the audio is muted and horizontal lines (noise bars) appear. Also, a short time is needed to stabilize the tape speed when re-entering the **PLAY** mode so slight interference may be observed during this time.






To search:

1. Press **REW** () or **FWD** () during playback.
2. To return to playback, press **PLAY** (.

Note:

After 3 minutes in **SEARCH** mode the Recorder returns to **PLAY** mode to protect the tape and video heads.

Still Picture and Frame-by-Frame Playback





1. Press **PAUSE/STEP** () during playback.
A still picture appears on the TV screen and the audio is muted.
2. If the still picture vibrates vertically, stabilize it by using / on the Remote Control.
3. Press **PAUSE/STEP** () repeatedly to advance the video picture one frame at a time.
4. To return to playback, press **PLAY** (.

Note:

After 5 minutes in **STILL** mode the Recorder stops to protect the tape and video heads.

Slow Motion

During slow motion, audio is muted and horizontal lines (noise bars) may appear on the TV screen. This is normal.

1. While in still mode, press **FWD** (). The tape is played at a speed 1/19 times slower than the normal speed.
2. Use / on the Remote Control if necessary to adjust the tracking.
3. To return to the normal speed, press **PLAY** (.

Note:

After 3 minutes in **SLOW MOTION** mode the Recorder goes back to **PLAY** mode to protect the tape and video heads.

Counter Memory Function

This feature is useful if there is a section of tape you want to view immediately after recording or if you want to return to the same point several times.

1. Begin recording or playing a tape.
2. Press DISPLAY until the real-time counter is displayed on the TV screen.
3. At the point that you want to locate later, reset the real-time counter to [0:00:00] by pressing CLEAR.
4. Continue to play or record.
5. Press STOP (■) when recording or playback finishes.
6. Press RETURN (↶). The tape automatically stops when the tape counter returns to about [0:00:00].

S-VHS Quasi Playback (SQPB)

- This Recorder can play back S-VHS recorded tapes, however, it cannot make recordings using S-VHS format tapes.
- SQPB is an abbreviation for S-VHS Quasi Playback.

Playing a DVD

Playback Setup

1. Press OPEN/CLOSE (⏏) to open the disc tray. Load your chosen disc in the tray, with the playback side down.
2. Press OPEN/CLOSE (⏏) to close the tray. Playback starts automatically. If playback does not start, press PLAY (▶).
In some cases, the disc menu might appear instead.
DVD
Use the ◀▶ ▲▼ buttons to select the title/chapter you want to view, then press OK to start. Press TITLE or LIST/ DISC MENU to return to the menu screen.
3. To stop the playback, press STOP (■). The unit records the stopped point, depending on the disc. "II■" appears on the screen briefly. Press PLAY (▶) to resume playback (from the scene point). If you press STOP (■) again or unload the disc ("■" appears on the screen.), the unit will clear the stopped point. Press OPEN/CLOSE (⏏) to remove the disc. Press OPEN/CLOSE (⏏) to close disc tray or press ⏻ (POWER), the disc tray closes automatically and unit turns off.

Notes:

- If parental control is set and the disc is not within the rating settings you must input the password. (See [Rating] on page 20).
- DVDs may have a region code. Your Recorder will not play discs that have a region code different from your Recorder. The region code for this player is 1 (one).
- Unless stated otherwise, all operations described use the Remote Control. Some features may also be available on the Setup menu.

Moving to another TITLE **+RW +R DVD**

When a disc has more than one title, you can move to another title:

Press DISPLAY then use ▲ / ▼ to select the title icon. Then, press the appropriate numbered button (0-9) or ◀ / ▶ to select a title number.

Moving to another CHAPTER

+RW +R DVD

When a title on a disc has more than one chapter, you can move to another chapter as follows:

- Press ▶ / ◀ (SKIP) briefly during playback to select the next chapter or to return to the beginning of the current chapter.
- Press ◀ (SKIP) twice in quick successions to step back to the previous chapter.
- To go directly to any chapter during playback, press DISPLAY and use ▲ / ▼ to select the chapter icon. Input the chapter number or use ◀ / ▶.

Slow Motion **+RW +R DVD**

1. Press REW (◀◀) or FWD (▶▶) during pause mode.
2. Use the REW (◀◀) or FWD (▶▶) to select the required speed:
4 steps (forward and backward)
3. To exit Slow Motion mode, press PLAY (▶).

Search

+RW +R DVD

1. Press REW (◀◀) or FWD (▶▶) during playback.
2. Press REW (◀◀) or FWD (▶▶) to select the required speed:
4 steps (forward and backward)
3. To exit SEARCH mode, press PLAY (▶).

Time Search **+RW** **+R** **DVD**

To start playing at any chosen time on the disc:

1. Press DISPLAY during playback. The time search box shows the elapsed playing time.
2. Press ▲ / ▼ to select the time clock icon and [--:--:--] appears.
3. Input the required start time in hours, minutes, and seconds from left to right. If you enter the wrong numbers, press CLEAR. Then enter the correct numbers.
4. Press OK to confirm. Playback starts from the selected time.

Marker Search **+RW** **+R** **DVD**

To enter a Marker

You can start playback from up to nine memorized points. To enter a marker, press MARKER at the desired point on the disc. The Marker icon appears on the TV screen briefly. Repeat to enter up to nine markers.

To Recall or Clear a Marked Scene

1. During disc playback, press SEARCH. The marker search menu appears on the screen.
2. Use ◀ / ▶ to select a marker number that you want to recall or clear.
3. Press OK and playback starts from the marked scene. Or, Press CLEAR and the marker number is erased from the list.
4. You can play any marker by inputting its number on the marker search menu.

Play mode select

+RW **+R** **DVD** **karaoke DVD**

Press REPEAT to select a desired play mode while playback.

- [Chapter] repeats the current chapter.
- [Title] repeats the current title.
- [Off] does not play repeatedly.

Still Picture and Frame-by-Frame Playback

+RW **+R** **DVD**

1. Press PAUSE/STEP (⏸) during playback. Advance the picture frame-by-frame by pressing PAUSE/STEP (⏸) repeatedly.
2. To exit still motion mode, press PLAY (▶).

Zoom **+RW** **+R** **DVD**

Use zoom to enlarge the video image.

1. Press ZOOM during playback or still playback to activate the Zoom function.
2. Each press of the ZOOM button changes the TV screen in the sequence: X1 (normal size) → X2 size → X4 size → X1 (normal size)
3. Use the ◀ ▶ ▲ ▼ buttons to move through the zoomed picture.
4. To resume normal playback, press ZOOM repeatedly or CLEAR button.

Note:

The Zoom function may not work on some DVDs.

Title Menu **DVD**

1. Press TITLE. If the current title has a menu, the menu appears on the screen. Otherwise, the disc menu may not appear.
2. The menu offers features such as camera angles, spoken language and subtitle options, and chapters for the title.

Disc Menu **DVD**

1. Press LIST/ DISC MENU and the disc menu is displayed.
2. Press LIST/ DISC MENU again to exit.

Camera Angle **DVD**

If the disc contains scenes recorded at different camera angles, you can change to a different camera angle during playback. Press DISPLAY then select the Angle icon during playback. Use ◀ / ▶ to select a desired angle. Note that the number of the current angle appears on the display.

Tip:

The Camera Angle icon is displayed on the TV screen when alternate angles are available.

Subtitles **DVD**

1. Press DISPLAY then select the Subtitle icon during playback.
2. Use ◀ / ▶ to display desired subtitle language.

Changing the Audio Soundtrack **DVD**

Press AUDIO then press ◀ / ▶ repeatedly during playback to hear a different audio language or audio soundtrack if available.

Note:

Some discs feature both Dolby Digital and DTS soundtracks. There is no analog audio output when DTS is selected. To listen to the DTS soundtrack, connect this recorder to a DTS decoder via one of the digital outputs. See page 14 for connection details.

Changing the Audio Channel

+RW +R DVD

Press AUDIO then press ◀ / ▶ repeatedly during playback to hear a different audio channel.

3D Surround +RW +R DVD

This unit can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multi-channel audio from a home theater system.

1. Press DISPLAY then use ▲ / ▼ to select the sound icon. Then, use ◀ / ▶ to select [3D SUR].
2. To turn off the 3D Surround effect, select [NORMAL].

Last Scene Memory **DVD**

This Recorder memorizes last scene from the last disc that is viewed. The last scene remains in memory even if you remove the disc from the Recorder or switch off the Recorder. If you load a disc that has the scene memorized, the scene is automatically recalled.

Notes:

- Settings are stored in memory for use any time.
- This Recorder does not memorize settings of a disc if you switch off the Recorder before commencing to play it.
- The Last Scene Memory function may not work on some DVDs.
- Last Scene Memory function for a previous DVD title is erased once a different DVD title is played.

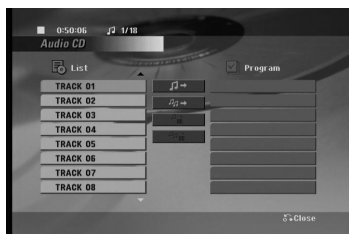
Playing an Audio CD or MP3/Window Media™ Audio files

The Recorder can play Audio CDs and MP3/Window Media™ Audio files on CD-ROM, CD-R/RW or DVD+R/RW discs.

Before playing MP3/Window Media™ Audio files, read [Notes on MP3/Window Media™ Audio Recordings] on page 30.

Audio CD

Once you insert an audio CD a menu appears on the TV screen. Use ▲ / ▼ to select a track then press PLAY (▶) and playback starts.



MP3 / Window Media™ Audio

1. Use ▲ / ▼ to select a folder, and press OK twice. A list of files in the folder appears.
2. Use ▲ / ▼ to select a track then press PLAY (▶) and Playback starts.



Tips:

- You can view TV channel or video input source by pressing RETURN (↵). If you want to return to the Music menu, press LIST/ DISC MENU.
- Press DISPLAY to view ID3-Tag information for the MP3 file. If ID3-Tag information is not present, [ID3-Tag :None] will appear. Press DISPLAY again to remove the information screen.
- Press and hold ▲ / ▼ for fast to move to the next/previous track or folder.
- On CDs, DVDs or Memory Card with mixed content (MP3/Window Media™ Audio files or JPEG files), you can select among the MP3/Window Media™ Audio menu and JPEG menu. Press TITLE a word on top on the menu is highlighted. Then, use ◀ / ▶ to select MP3/Window Media™ Audio or JPEG then press OK.
- If you are in a file list and want to return to the Folder list, use the ▲/▼ to highlight ◀ and press OK to return to the previous menu screen.

Audio CD and MP3/Window Media™ Audio file Features

Pause

1. Press PAUSE/STEP (⏸) during playback.
2. To return to playback, press PLAY (▶) or press PAUSE/STEP (⏸) again.

Moving to another Track

- Press ▶ / ◀ (SKIP) briefly during playback to go to the next track or to return to the beginning of the current track.
- Press ◀ (SKIP) twice in quick successions to go back to the previous track.
- On an Audio CD, to go directly to any track, enter the track number using the numbered buttons (0-9) during playback.

Play mode select

Press REPEAT to select a desired play mode.

- [TRACK]: Repeats the current track.
- [ALL] (CD): Repeats all the tracks on a disc.
- [OFF](No display): Does not play repeatedly.
- [Random]: Random playback.

Tip:


By pressing ◀ / ▶ (SKIP) during random playback, the unit selects another track and resumes random playback.


Search **ACD**

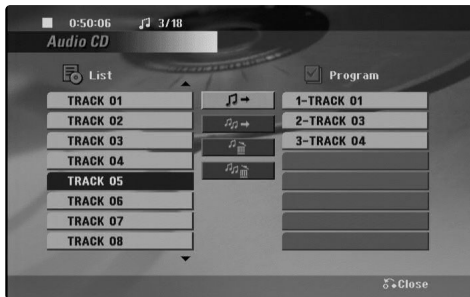
1. Press REW (◀◀) or FWD (▶▶) during playback.
2. Press REW (◀◀) or FWD (▶▶) to select the required speed (3 steps).
3. To exit SEARCH mode, press PLAY (▶).

Program Playback with Audio CD and MP3 / Window Media™ Audio files


The program function enables you to store your favourite tracks from any disc in the player memory. Program can contain 99 tracks (Audio CD) or 256 tracks (MP3/Window Media™ Audio).

1. Insert a disc.
Audio CD and MP3/Window Media™ Audio Discs:
Audio CD or MP3/Window Media™ Audio menu appears.
2. Select a track on the List.
3. Select “” icon then press OK to place the selected track on the Program list. Repeat to place additional tracks on the list.

You can add all tracks in the disc. Select “” icon then press OK.
4. Select the track you want to start playing on the Program list.



Example) Audio CD






5. Press PLAY () or OK to start.
Playback begins in the order in which you programmed the tracks.
Playback stops after playing the last programmed track on the program list.

Play mode selection for Programmed Tracks


Press REPEAT to select the desired play mode.

- [TRACK] Repeats the current track.
- [ALL] Repeats all tracks on the Program List.
- [OFF] Cancels Repeat mode (no display).
- [Random] Random playback on the Program List.

Erasing a Track from Program List

1. Use     to select the track that you wish to erase from the Program list.
2. Press CLEAR. Or, select “” icon then press OK to erase the selected track on the Program list. Repeat to erase additional tracks on the list.

Erasing the Complete Program List

Select “”, then press OK. The complete Program for the disc is erased.

Note:

The programs are also cleared when the disc is removed.

Notes on MP3/Window Media™ Audio Recordings

MP3 / Window Media™ Audio disc compatibility with this unit is limited as follows:

- Sampling frequency: within 32 - 48 kHz (MP3), within 32 - 48 kHz (Window Media™ Audio)
- Bit rate: within 32 - 320 kbps (MP3), 32 - 192 kbps (Window Media™ Audio)
- This unit cannot read an MP3/Window Media™ Audio file that has a file extension other than “.mp3” / “.wma”.
- CD-R physical format should be “ISO 9660” and “JOLIET”.
- DVD+R/RW physical format should be “ISO 9660 (UDF Bridge format)”.
- If you record MP3 / Window Media™ Audio files using software that cannot create a file system (eg. Direct-CD) it is impossible to playback MP3 / Window Media™ Audio files. We recommend that you use Easy-CD Creator, which creates an ISO 9660 file system.
- The total number of files and folders on the disc should be less than 999.

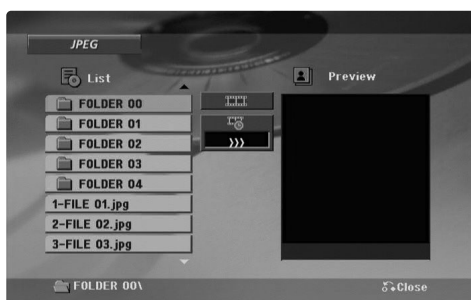
This unit requires discs and recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or Window Media™ Audio files) and these require certain pre-existing conditions (see above) to ensure compatible playback.

Customers should note that permission is required in order to download MP3 / Window Media™ Audio files and music from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.

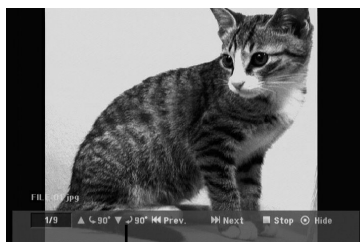
Viewing a JPEG File

This unit can play JPEG files on CD-R/RW or DVD+R/RW discs. Before playing JPEG recordings, read [About JPEG image files] on page 31.

1. Insert a disc and close the tray. The JPEG menu appears on the TV screen.




2. Press ▲ / ▼ to select a folder, then press OK. A list of files in the folder appears.
3. If you want to view a particular file, press ▲ / ▼ to highlight a file then press OK or PLAY (▶). The selected image is displayed in full screen.



Press OK to display or remove this menu.

4. To stop viewing at any time, press STOP (■). The menu screen appears.

Tip:

- If you are in a file list and want to return to the Folder list, use the ▲/▼ to highlight  and press OK to return to the previous menu screen.
- Press and hold ▲/▼ to go to the next/previous page.
- On CDs, DVDs or Memory Card with mixed content (MP3/Window MediaAudio files or JPEG files), you can select among the MP3/Window Media™ Audio menu and JPEG menu. Press TITLE a word on top of the menu is highlighted. Then, use ◀ / ▶ to select MP3/Window Media™ Audio or JPEG then press OK.
- You can view TV channel or video input source by pressing RETURN (↵). If you want to return to the Music menu, press LIST/DISC MENU.

Still picture

Use PAUSE/STEP (⏸) while showing a picture to pause mode.


Skip Images

While viewing a picture, press ▶ / ◀ (SKIP) once to advance to the next file or return to the previous file.



Rotate Images

Use ▲ / ▼ while viewing a picture to flip the picture clockwise or counterclockwise.

Slide Show JPEG

Use ▲ ▼ ◀ ▶ to highlight the  (Slide Show) on the JPEG menu then press OK.

Slide Show starts from the selected file if Speed option is not [II] (Off). While viewing a file, you can press STOP (■) to move to the previous menu (JPEG menu).

- There are four Slide Speed options () : >>> (Fast), >> (Normal), > (Slow) and II (Off). Use ▲ ▼ ◀ ▶ to highlight the Speed options (). Then, use ◀ / ▶ to select the option you want to use then press OK.

To listen to music while slide show simultaneously JPEG

You can display photo files while listening to MP3/Window Media™ Audio music files recorded on a disc.

Select  icon then press OK on the JPEG menu.

About JPEG image files

JPEG disc compatibility with this recorder is limited as follows:

- Depending upon the size and number of JPEG files, it could take a long time for the recorder to read the files. If you don't see an on-screen display after several minutes, some of the files may be too large — reduce the resolution of the JPEG files to less than 4M pixels.
- The total number of files and folders on the disc should be less than 999.
- Some discs may be incompatible due to a different recording format or the condition of disc.
- Ensure that all the selected files have the “.jpg” extensions when copying into the CD layout.
- If the files have “.jpe” or “.jpeg” extensions, please rename them as “.jpg” file.
- File names without “.jpg” extension will not be able to be read by this recorder. Even though the files are shown as JPEG image files in Windows Explorer.

Recording

About DVD recording

Notes:

- This Recorder cannot record CD-R or CD-RW discs.
- Fingerprints and small scratches on a disc can affect playback and/or recording performance. Please take proper care of your discs.
- The company does not hold any responsibility to compensate the contents which should have been recorded, and any losses or damages (e.g. losses of business profit, or business intermission) that may arise from malfunction of this recorder (not recording/editing as intended).

Disc types and recording formats, modes, and settings

This recorder can play DVD+RW and DVD+R discs. The disc format for DVD+R, DVD+RW discs is always "Video format"—the same as pre-recorded DVD-Video discs. This means that once finalized, you can play a DVD+R, or DVD+RW in a regular DVD player.

You can change Recording format, if required. (Reinitializing the disc will erase the contents of the disc.)

The recording mode is closely related to the disc format. The disc format is Video format, then the recording mode is Video mode.

These can be changed as required for each recording and determine the picture quality and how much space the recording will take up on the disc.

Notes for recording

- The recording times shown are not exact because the recorder uses variable bit-rate video compression. This means that the exact recording time will depend on the material being recorded.
- When recording a TV broadcast, if the reception is poor or the picture contains interference, the recording times may be shorter.
- If you record still pictures or audio only, the recording time may be longer.
- The displayed times for recording and time remaining may not always add up to exactly the length of the disc.
- The recording time available may decrease if you heavily edit a disc.
- When using a DVD+R disc, you can keep recording until the disc is full, or until you finalize the disc. Before you start a recording session, check the amount of recording time left on the disc.
- The Delete Title option in the Title List (Original) menu only hides the title, it does not actually erase the title from the disc and increase the recording time available .
- Overwrite recording is available using DVD+RW discs.
- When using a DVD+R/RW, the recorder will execute the Menu-making operation to update the new title and editing when removing the disc from the recorder.

Basic Recording from a TV

Follow the instructions below to record a TV program. Recording starts immediately and continues until the disc or tape is full or you stop the recording.

1. Switch on the Recorder, select the device (VCR or DVD) for Recording and load a recordable disc or tape. Also make sure that the TV input is set to this recorder.
2. Set a recording mode as necessary by pressing REC MODE repeatedly.
DVD: XP, SP, LP, EP.
VCR: SP, SLP.
3. Select the TV channel to record.
4. Use AUDIO to select the audio channel to record. The table below shows what will be recorded on the different settings for different types of broadcast. The last column (Monitor Audio) shows what you'll hear as it is recording.

TV Broadcast	Selected Audio	Broadcast Audio		Monitor Audio
		L Ch	R Ch	
MONO	MONO	MONO	MONO	MONO
STEREO	STEREO	L	R	STEREO
	Left	L	L	Left
	Right	R	R	Right
MONO+SAP	MONO	MONO	MONO	MONO
	SAP	SAP	SAP	SAP
STEREO +SAP	STEREO	L	R	STEREO
	SAP	SAP	SAP	SAP
	MONO	MONO	MONO	MONO

If you set the audio channel to SAP, but there is no SAP channel being broadcast, the main audio (mono or stereo) will be recorded.

5. Press RECORD (●) once to start recording. The REC indicator lights in the display window.
6. Press STOP (■) to stop recording.

Notes:

- The maximum numbers of DVD titles are 49.
- If the Recorder is powered off during DVD recording, the recording will not be saved.

Instant Timer Recording

Instant Timer Recording allows you to make a recording easily of a preset length without using the program timer.

1. Follow steps 1-4 as shown left (Basic Recording from a TV).
2. Press RECORD (●) repeatedly to select the recording time length. Recording starts after the first press.
DVD: Each subsequent press increases the recording time by 10 minutes.
VCR: Each subsequent press increases the recording time by 30 minutes (maximum 540 minutes). Please confirm the VHS tape has enough remaining time to be recorded before recording.



Instant Timer Record Menu

Checking the Recording Time

Press RECORD (●) or DISPLAY once to check the recording time. The recalled setting will automatically return to the TV screen for a moment.

Also, remaining time of recording is shown in the display window.

To Extend the Recording Time

The recording time can be extended anytime by pressing RECORD (●).

Each subsequent press increases the recording time by 10 minutes (DVD) or 30 minutes (VCR).

To Pause the Recording

1. Press PAUSE/STEP (||) to pause the recording.
2. When you want to continue recording, press PAUSE/STEP (||) or RECORD (●).

Notes:

- If you press PAUSE/STEP (||) during the Instant Timer Recording, it will be canceled.
- The Recorder will automatically power off when the Instant Timer Recording ends.
- If the unit is DVD mode when the VCR Instant timer recording ends, the unit will not automatically power off.
- If the unit is VCR recording mode when the DVD Instant Timer Recording ends, the unit will not automatically power off.

To record one TV program while watching another

1. Press TV/VCR to select the TV mode during recording. The TV indicator appears.
2. Using the TV, select the channel to be viewed.

Tip (VCR mode only)

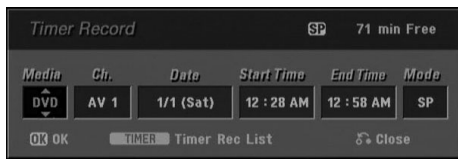
Always use PAUSE/STEP (II) for best results when making changes during recording .

For example: To change channels during recording, first press PAUSE/STEP (II) to put the unit in pause mode. Then select the desired channel on the Recorder, and press PAUSE/STEP (II) again to resume recording.

Timer Recording

The Timer Recording function allows you to record up to 8 programs within a period of one month.

1. Press TIMER.
The Timer Record menu will appear.



- [Media] – Choose a media (DVD or VCR).
 - [Ch.] – Choose a channel (2-69 or 1-125 for antenna or cable channels respectively, excluding skip channels), or one of the external inputs from which to record (AV1 or AV2).
 - [Date] – Choose a date up to 1 month in advance, or select a daily or weekly program.
 - [Start Time] – Set the recording start time.
 - [End Time] – Set the recording end time.
 - [Mode] – Choose a record mode.
DVD: EP, LP, SP, XP, or AT (Auto)
VCR: SP, SLP, or AT (Auto)
AT(Auto) mode determines how much time is available on the disc or tape and switches record mode, if necessary, to complete recording the program.
2. Enter the necessary information for your timer recording(s).
 - ◀ / ▶ (left/right) – Move the cursor left/right
 - ▲ / ▼ (up/down) – Change the setting at the current cursor position
 - Press RETURN (↵) to exit the Timer Record menu.
 - Press TIMER to display Timer Record List.
 3. Press OK to save the program.
The Timer Record List will appear.

4. Press RETURN (↵) to exit the Timer Record List.

Notes:

- The Timer indicator lights on the front panel display.
- If the Disc and Tape indicator are blinking, either no disc or tape is loaded, or the loaded disc is not recordable.
- The Recorder will record the audio according to the current TV tuner setting (Stereo, Mono or SAP). Use the AUDIO button to set the audio before switching the Recorder to Standby mode.
- The Recorder will automatically power off when the Timer Recording ends.
- If the unit is DVD mode when the VCR timer recording ends, the unit will not automatically power off.
- There is a short delay when a timer recording finishes to confirm the recorded program. If two timer recordings are set to record sequentially (one right after the other), the very beginning of the later program may not be recorded.
- You must press STOP (■) to stop the Timer Recording.

Checking Timer Recording Details

Programming can be checked whenever the Recorder is turned on. Press TIMER twice.

- Use ▲ / ▼ to select a timer recording.
- Press OK to edit the selected program.
Timer Record menu appears.



Canceling a Timer Recording

You can clear a timer setting anytime before the recording actually starts.

- Use ▲ / ▼ to select a program you want to erase on the Timer Recorder List, then press CLEAR and select [Yes] than press OK.

Timer Recording Troubleshooting

Even though the timer is set, the recorder will not record when:

- There is no disc (or tape) loaded.
- A non-recordable disc (or tape) is loaded.
- Disc Protect is set to ON in the Disc menu (see page 24).
- There are already 49 titles recorded on the disc.

You cannot enter a timer program when:

- A recording is already underway.
- The time you're trying to set has already passed.
- There are already 8 timer programs set.

If two or more timer programs overlap:

- The earlier program takes priority.
- When the earlier program finishes, the later program starts.
- If two programs are set to start at exactly the same time, the program entered first takes priority.

If the disc is damaged, the recording may not complete successfully. In this case even though the Check field shows [Rec. OK], it may not be.

Additional Information

Simultaneous Play and Record

You can play or record DVD during the VCR playing or recording. During the VCR recording or playing, press DVD, then you can play or record of DVD are available.

Notes:

- You cannot playback both DVD and VCR at the same time.
- If you wish VCR playback or record during the DVD playback, press VCR to change to VCR mode and perform the VCR playback or recording.
- You can not change VCR mode during the DVD recording mode.

Dubbing from DVD to VCR

You can copy the contents of a DVD to a VHS tape using the DUBBING (or DUB) button.

1. Insert a blank VHS videotape into the VCR deck.
2. Insert the disc you wish to copy in the DVD deck and close the disc tray.
3. Find the place on the DVD (or Disc) from which you want to start dubbing using the PLAY, FF, REW and PAUSE functions.
For best results, pause playback at the point from which you want to record.
4. Press the DUBBING button on the Remote Control or DUB on the front panel.
The Dubbing menu appears.



5. Use ▲ / ▼ / ◀ / ▶ to select the desired Record Mode: SP or SLP (3 times SP).
6. Select [Dubbing] then press OK or DUBBING to start copying.
7. To stop dubbing at any other time, press STOP (■).
You must stop the dubbing process manually when the DVD movie ends, or the unit may replay and record over and over again.

Note:

If the DVD (or Discs) you are attempting to copy is copy protected, you will not be able to copy the disc. It is not permitted to copy Macrovision encoded DVDs (or Discs). [Copy-protected. Cannot record.] is displayed on the TV screen.

Tip:

If you press PAUSE during Dubbing mode, both the DVD and VCR decks go into Pause mode and the [DUB] indicator blinks on the front panel display. While in Pause mode, you can adjust the DVD playback position using PLAY, REW, FF, PAUSE/STEP, etc. The VCR deck will remain in Pause mode. To resume Dubbing, press the DUBBING button twice.

Dubbing from VCR to DVD

You can copy the contents of a VHS tape to a DVD using the DUBBING (DUB) button. This allows you to archive your old VHS tapes to DVD.

1. Insert a blank DVD disc in the DVD deck and close the disc tray.
2. Insert the VHS video tape you wish to copy into the VCR deck.
3. Find the place on the VHS tape from which you want to start dubbing using the PLAY, FF, REW and PAUSE functions. For best results, pause playback at the point from which you want to record.
4. Press the DUBBING button on the Remote Control or DUB on the front panel. The Dubbing menu appears.



5. Use ▲ / ▼ / ◀ / ▶ to select the desired Record Mode: EP, LP, SP or XP.
6. Select [Dubbing] then press OK or DUBBING to start copying.
7. To stop dubbing at any other time, press STOP (■). Dubbing will stop automatically when the VHS tape ends.

Note:

If the VHS video tape you are attempting to copy is copy protected, you will not be able to copy the tape. It is not permitted to copy Macrovision encoded tapes.

Tip:

If you press PAUSE during Dubbing mode, both the DVD and VCR decks go into Pause mode and the [DUB] indicator blinks on the front panel display. While in Pause mode, you can adjust the VCR playback position using PLAY, REW, FF, PAUSE/STEP, etc. The DVD deck will remain in Pause mode. To resume Dubbing, press the DUBBING button twice.

Recording from External Components

You can record from an external component, such as a camcorder or VCR, connected to any of the Recorder's external inputs.

1. Make sure that the component you want to record from is connected properly to the Recorder. See page 17.
2. Press ▲ or ▼ repeatedly to select the external input to record from.
 - AV1: Audio/Video Input mounted on back panel.
 - AV2: Audio/Video Input mounted on front panel.
3. Load a recordable disc or tape.
4. Set a recording mode as necessary by pressing REC MODE repeatedly.
DVD: XP, SP, LP or EP.
VCR: SP or SLP
5. Press RECORD (●) once to start recording. The REC indicator lights in the display window.
6. Press STOP (■) to stop recording.

Notes:

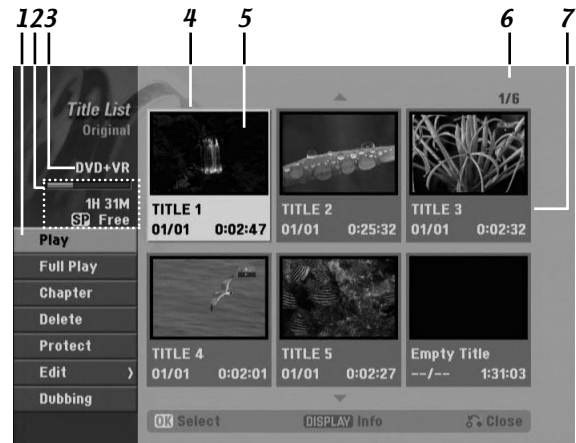
- If your source is copy-protected using CopyGuard, you will not be able to record it using this recorder. See [Copyright] on page 9 for more details.
- Recording continues until you press STOP (■) or the disc is full.
- To record for a fixed length of time, see Instant Timer Recording on page 34.

Editing

Title List and Chapter List Menu Overview

Using the Title List menu you can edit video content. The editing features available in the Title List menu depend on whether you are editing video on DVD, and whether you're editing Original content, or a Playlist.

1. Press LIST/ DISC MENU to display the Title List menu.
Playback should be stopped when you do this.
 - When selecting titles, use the ▲ / ▼ buttons to display the previous/next page if there are more than six titles.
 - If you are editing a VR mode disc, press LIST/ DISC MENU to switch between Original and Playlist menu.
 - On the left side of the screen are the menu options. The main part of the screen shows thumbnails of the titles (or chapter) on the DVD. You can change these thumbnails using the THUMBNAIL button. (see [Changing Title Thumbnails] on page 39.)
 - Press DISPLAY to display the information of selected title on the Title List menu.
 - After selecting a title or chapter on the Title List of Chapter List menu, then press OK. The menu options on the left side of the menu. Use ▲ / ▼ to select a option then press OK to confirm your selection.
2. To exit the Title List menu, press RETURN (↵) repeatedly.



1. Menu options: To display menu option, select a title or chapter then press OK. The options displayed differ depending on the disc type.
 - [Play] Start playback of the selected title or chapter. The hidden titles and chapters on the DVD+R/RW cannot be play back.
 - [Full Play] Starts playback of the selected title including the hidden chapters.
 - [Chapter] Displays Chapter List of the title.
 - [Delete] Deletes the title or chapter. (page 41)
 - [Protect] Protects accidental recording, editing or deleting of the title (page 42).
 - [Edit] Edits or Deletes a part of the title.
 - [Title Name] Edits the title name. (page 42)
 - [Title] Displays Title List of the chapter.
 - [Divide] Divides a title into two (page 43).
 - [Combine] Combines two titles or chapters into one (page 43).
 - [Hide (Show)] Hides (or Shows) the selected title or chapter. (page 44)
 - [Dubbing] Dubs the title to VCR.
2. Indicates the record mode, free space, and elapsed time progress bar.
3. Current media.
4. Currently selected title.
5. Thumbnail.
6. Shows the selected title number and total number of titles.
7. Shows the title name, recorded date, and recording length.

VR Mode: Original and Playlist Editing

Titles, Chapters and Parts

Titles in the disc's original content contain one or more chapters. When you insert a disc's title into the Playlist, all the chapters within that title also appear. In other words, chapters in the Playlist behave exactly as chapters on a DVD-Video disc do. Parts are sections of Original or Playlist titles. From the Original and Playlist menu you can add or delete parts. Adding a chapter or title to the Playlist creates a new title made up of a section (ie., chapter) of an Original title. Deleting a part removes part of a title from the Original or Playlist menu.

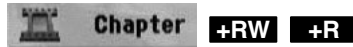
Caution

- When editing using the Delete, Add and Move functions, the start and end frames may not be exactly as set in the start and end point display.
- During Playlist playback, you may notice a momentary pause between edits. This is not a malfunction.

Is editing a DVD like editing a video tape?

No. When you edit a video tape you need one video deck to play the original tape and another to record the edits. With DVD, you edit by making a 'Playlist' of what to play and when to play it. On playback, the Recorder plays the disc according to the Playlist.

Adding Chapter Markers



You can create chapters within a title by inserting chapter marks at the desired points.

Note:

Chapter markers are inserted at regular intervals automatically. You can change this interval from the Initial Setup menu (see [Auto Chapter] on page 23).

During recording or playing back, at the point you want to start a new chapter, press CHAPTER. A chapter marker icon appears on the TV screen.

Changing Title Thumbnails



Each title displayed in the Title List menu is represented by a thumbnail picture taken from the start of that title or chapter.

If you prefer, select a different still picture from within a title.

Press THUMBNAIL to make the currently displayed picture the one that appears in the Title List menu. The still picture that you choose appears in both the Original or Playlist menu.

Deleting an Original Title

If you choose to delete a title from the Original menu, the title is actually deleted from the disc and the remaining time available for recording increases.

1. Use ◀ / ▶ / ▲ / ▼ to choose a title you want to delete on the [Title List] menu then press OK. The menu options appears on the left side of the screen.
2. Select [Delete] option from the options on the menu.



3. Press OK to confirm. The confirm message for deleting will appear.
4. Use ◀ / ▶ to select [Yes] then press OK. The selected chapter or title is deleted. After pressing OK, the new, updated menu is displayed.
5. Repeat steps 1 - 4 to continue to delete from the menu.
6. Press RETURN (↵) repeatedly to exit the menu.

Notes:

- When DVD+RW recording, the deleted title's name is changed to [Deleted Title].
- If more than two titles are repeatedly deleted, the titles are combined into one.
- When you are deleting a title or chapter, only the last one on DVD+R/RW increases remaining recording time.

Naming a Title

You can name Original and Playlist titles independently.

1. Choose the title you want to name on the Title List menu, then press OK. The menu options appears on the left side of the menu.
2. Use ▲/▼ to select [Title Name] option then press OK. Keyboard menu appears.



3. Enter a name for the title. Use ◀ / ▶ / ▲ / ▼ to select a character then press OK to confirm your selection.
 - **Alphabet Capital:** Switches the keyboard to upper case characters.
 - **Alphabet Small:** Switches the keyboard to lower case characters.
 - **Symbols:** Switches the keyboard to symbol characters.
 - **OK:** Confirms the name you have entered.
 - **Cancel:** Deletes all characters and exits the Keyboard menu.
 - **Space:** Inserts a space at the cursor position.
 - **Delete:** Deletes the character to the left of the cursor position.
 - ◀ / ▶: Moves the cursor left or right.
4. Choose [OK] then press OK to fix the name and return to the previous menu screen.
5. Press RETURN (↵) repeatedly to exit the menu.

Notes:

- Names can be up to 32 characters long.
- For discs formatted on a different recorder, you will see only a limited character set.
- When recording on DVD+R or DVD+RW discs, the entered name is displayed on the DVD player only after finalization.

Hide a Chapter

+RW **+R**

You can skip playing chapters without deleting from the disc.

1. Use **▲▼◀▶** to choose a chapter you want to hide on the [Chapter List] menu, then press OK. Options appear on the left side of the screen.
2. Select [Hide] option.



3. Press OK to confirm.

Tip:

If you select a hidden chapter on the [Chapter List] menu, you can 'show' it by choosing [Show] option on the menu. After doing that, you are able to see the chapter.

Protect a Title

+RW **+R**

Use this function to protect against accidental recording, editing or deleting of the title.

1. Press LIST/ DISC MENU to display the [Title List] menu.
2. Use **▲▼◀▶** to choose a title you want to protect then press OK. Options appear on the left side of the screen.
3. Select [Protect] from the options.



4. Press OK to confirm. The lock mark will appear on the title's thumbnail.

Tip:

If you select a title that has already been protected on the Title List menu, you can 'unprotect' it by choosing [Protect] option from the Title List menu options. After doing that, you can edit and delete the title.

Overwriting Recording **+RW**

To overwrite a new video recording on a previously recorded title, follow these steps. This feature is not available for DVD+Rs, that always record at the end of the Disc.

1. Select input source you want to record (TV channel, AV1-2).
2. Press LIST/ DISC MENU to display the Title List menu.



3. Use ▲ ▼ ◀ ▶ to choose a title you want to overwrite.
4. Press RECORD (●) to start overwrite recording. Overwrite recording starts from the start point of the title.
5. Press STOP (■) to stop the overwrite recording. The new title is created and updated menu is displayed.

Notes:

- This function is not available for a protected title.
- **If the overwrite is longer than the recording length of the current title, the next title is overwritten. But if next title is protected, the overwriting stops at the starting point of the title.**

Viewing Title List menu displayed on other DVD Recorders or Players

+RW +R

You can view the Title List menu displayed on the other DVD player that is capable of playing DVD+RW or DVD+R discs.

1. Insert DVD+R or DVD+RW disc recorded already.
2. Press TITLE in Play mode or DVD tuner mode. Title List menu will appear as shown below.



3. To play back a title, select the title you want then press OK or PLAY (▶).

Tip:

You can remove the Title List menu by pressing STOP (■).

Playing Your Recordings on Other DVD Players (Finalizing a Disc)

Most regular DVD players can play finalized discs recorded in Video mode, finalized DVD+R or DVD+RWs. Check the manual that came with the other player to check what formats of discs it will play.

Finalizing 'fixes' the recordings and editings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.

Finalizing a Video mode disc creates a menu screen for navigating the disc. The menu can be accessed by pressing LIST/ DISC MENU or TITLE.

To finalize a disc, refer to [Finalize] on page 24.

Notes:

- Unfinalized DVD+RW is playable on regular DVD players.
- The edited contents of a DVD+RW disc is compatible on regular DVD players only after finalization.
- Any edited contents of the DVD+R disc are not compatible on regular DVD players. (Hide, chapter combine, added chapter mark, etc.)
- How long finalization takes depends on the type of disc, how much is recorded on the disc, and the number of titles on the disc.

Reference

Language Codes

Use this list to input your desired language for the following initial settings: Disc Audio, Disc Subtitle, Disc Menu.

Language	Code	Language	Code	Language	Code	Language	Code
Abkhazian	6566	Fiji	7074	Lingala	7678	Singhalese	8373
Afar	6565	Finnish	7073	Lithuanian	7684	Slovak	8375
Afrikaans	6570	French	7082	Macedonian	7775	Slovenian	8376
Albanian	8381	Frisian	7089	Malagasy	7771	Somali	8379
Ameharic	6577	Galician	7176	Malay	7783	Spanish	6983
Arabic	6582	Georgian	7565	Malayalam	7776	Sudanese	8385
Armenian	7289	German	6869	Maltese	7784	Swahili	8387
Assamese	6583	Greek	6976	Maori	7773	Swedish	8386
Aymara	6588	Greenlandic	7576	Marathi	7782	Tagalog	8476
Azerbaijani	6590	Guarani	7178	Moldavian	7779	Tajik	8471
Bashkir	6665	Gujarati	7185	Mongolian	7778	Tamil	8465
Basque	6985	Hausa	7265	Nauru	7865	Tatar	8484
Bengali; Bangla	6678	Hebrew	7387	Nepali	7869	Telugu	8469
Bhutani	6890	Hindi	7273	Norwegian	7879	Thai	8472
Bihari	6672	Hungarian	7285	Oriya	7982	Tibetan	6679
Breton	6682	Icelandic	7383	Panjabi	8065	Tigrinya	8473
Bulgarian	6671	Indonesian	7378	Pashto, Pushto	8083	Tonga	8479
Burmese	7789	Interlingua	7365	Persian	7065	Turkish	8482
Byelorussian	6669	Irish	7165	Polish	8076	Turkmen	8475
Cambodian	7577	Italian	7384	Portuguese	8084	Twi	8487
Catalan	6765	Japanese	7465	Quechua	8185	Ukrainian	8575
Chinese	9072	Javanese	7487	Rhaeto-Romance	8277	Urdu	8582
Corsican	6779	Kannada	7578	Rumanian	8279	Uzbek	8590
Croatian	7282	Kashmiri	7583	Russian	8285	Vietnamese	8673
Czech	6783	Kazakh	7575	Samoan	8377	Volapük	8679
Danish	6865	Kirghiz	7589	Sanskrit	8365	Welsh	6789
Dutch	7876	Korean	7579	Scots Gaelic	7168	Wolof	8779
English	6978	Kurdish	7585	Serbian	8382	Xhosa	8872
Esperanto	6979	Laothian	7679	Serbo-Croatian	8372	Yiddish	7473
Estonian	6984	Latin	7665	Shona	8378	Yoruba	8979
Faroese	7079	Latvian, Lettish	7686	Sindhi	8368	Zulu	9085

Area Codes

Choose a area code from this list.

Area	Code	Area	Code	Area	Code	Area	Code
Afghanistan	AF	Ethiopia	ET	Malaysia	MY	Saudi Arabia	SA
Argentina	AR	Fiji	FJ	Maldives	MV	Senegal	SN
Australia	AU	Finland	FI	Mexico	MX	Singapore	SG
Austria	AT	France	FR	Monaco	MC	Slovak Republic	SK
Belgium	BE	Germany	DE	Mongolia	MN	Slovenia	SI
Bhutan	BT	Great Britain	GB	Morocco	MA	South Africa	ZA
Bolivia	BO	Greece	GR	Nepal	NP	South Korea	KR
Brazil	BR	Greenland	GL	Netherlands	NL	Spain	ES
Cambodia	KH	Islands	HM	Netherlands Antilles	AN	Sri Lanka	LK
Canada	CA	Hong Kong	HK	New Zealand	NZ	Sweden	SE
Chile	CL	Hungary	HU	Nigeria	NG	Switzerland	CH
China	CN	India	IN	Norway	NO	Taiwan	TW
Colombia	CO	Indonesia	ID	Oman	OM	Thailand	TH
Congo	CG	Israel	IL	Pakistan	PK	Turkey	TR
Costa Rica	CR	Italy	IT	Panama	PA	Uganda	UG
Croatia	HR	Jamaica	JM	Paraguay	PY	Ukraine	UA
Czech Republic	CZ	Japan	JP	Philippines	PH	United States	US
Denmark	DK	Kenya	KE	Poland	PL	Uruguay	UY
Ecuador	EC	Kuwait	KW	Portugal	PT	Uzbekistan	UZ
Egypt	EG	Libya	LY	Romania	RO	Vietnam	VN
El Salvador	SV	Luxembourg	LU	Russian Federation	RU	Zimbabwe	ZW

Troubleshooting

Check the following guide for the possible cause of a problem before contacting service.

Symptom	Cause	Correction
No power.	<ul style="list-style-type: none"> The power cord is disconnected. 	<ul style="list-style-type: none"> Plug the power cord into the wall outlet securely.
No picture.	<ul style="list-style-type: none"> The TV is not set to receive Recorder signal output. 	<ul style="list-style-type: none"> Select the appropriate video input mode on the TV so the picture from the Recorder appears on the TV screen.
	<ul style="list-style-type: none"> The video cable is not connected securely. 	<ul style="list-style-type: none"> Connect the video cable into the jacks securely.
	<ul style="list-style-type: none"> The Progressive Scan is set to On on the setup menu but is connected to a standard(analog) television with component video input. 	<ul style="list-style-type: none"> Set Progressive Scan to [OFF] (see page 20).
	<ul style="list-style-type: none"> Wrong connection. 	<ul style="list-style-type: none"> Check the connection.
No sound.	<ul style="list-style-type: none"> The equipment connected with the audio cable is not set to receive Recorder signal output. 	<ul style="list-style-type: none"> Select the correct input mode of the audio receiver so you can listen to the sound from the Recorder.
	<ul style="list-style-type: none"> The audio cables are not connected securely. 	<ul style="list-style-type: none"> Connect the audio cable into the jacks securely.
	<ul style="list-style-type: none"> The power of the equipment connected with the audio cable is turned off. 	<ul style="list-style-type: none"> Turn on the equipment connected with the audio cable.
	<ul style="list-style-type: none"> The AUDIO options are set to the wrong position. 	<ul style="list-style-type: none"> Set the AUDIO options to the correct position.
The playback picture is poor.	<ul style="list-style-type: none"> The disc is dirty. 	<ul style="list-style-type: none"> Clean the disc.
	<ul style="list-style-type: none"> The TV channels are not tuned in properly. 	<ul style="list-style-type: none"> Check tuning, carry out tuning again.
	<ul style="list-style-type: none"> Tape heads are dirty. 	<ul style="list-style-type: none"> Clean video heads.
	<ul style="list-style-type: none"> Tape is a rental or was recorded on another VCR. 	<ul style="list-style-type: none"> Use ▲/▼ for manual tracking adjustment while tape is playing.
	<ul style="list-style-type: none"> This unit can only output 525p Progressive scan picture. 	<ul style="list-style-type: none"> Make sure that your TV can support 525p Progressive scan picture or set Progressive scan to off.
Picture from external input is distorted.	<ul style="list-style-type: none"> The video signal from the external component is copy-protected. 	<ul style="list-style-type: none"> You cannot connect via the Recorder. Connect the component directly to your TV.
Some channels are skipped over when using ▲ / ▼.	<ul style="list-style-type: none"> The skipped channels were deleted with the CH. Add/Del feature. 	<ul style="list-style-type: none"> Use the CH. Add/Del feature to restore channels. See [To Add or Erase Channels from Memory] on page 18.

Symptom	Cause	aCorrection
The Recorder does not start playback.	<ul style="list-style-type: none"> • No disc is inserted. • No tape is inserted. 	<ul style="list-style-type: none"> • Insert a disc or tape. (Check that the disc or tape indicator in the display window is lit.)
	<ul style="list-style-type: none"> • An unplayable disc is inserted. 	<ul style="list-style-type: none"> • Insert a playable disc. (Check the disc type and Regional code.)
	<ul style="list-style-type: none"> • The disc is placed upside down. 	<ul style="list-style-type: none"> • Place the disc with the playback side down.
	<ul style="list-style-type: none"> • The disc is not placed within the guide. 	<ul style="list-style-type: none"> • Place the disc on the disc tray correctly inside the guide.
	<ul style="list-style-type: none"> • The disc is dirty. 	<ul style="list-style-type: none"> • Clean the disc.
	<ul style="list-style-type: none"> • The Rating level is set. 	<ul style="list-style-type: none"> • Cancel the Rating function or change the rating level.
Video tape cannot be inserted.	<ul style="list-style-type: none"> • Is the cassette compartment empty? 	<ul style="list-style-type: none"> • Eject the tape in.
The remote control does not work properly.	<ul style="list-style-type: none"> • There is an obstacle in the path of the remote control and this unit. 	<ul style="list-style-type: none"> • Remove the obstacle.
	<ul style="list-style-type: none"> • The batteries in the remote control are exhausted. 	<ul style="list-style-type: none"> • Replace the batteries with new ones.
	<ul style="list-style-type: none"> • The remote control is not pointed at the remote sensor of the Recorder. 	<ul style="list-style-type: none"> • Point the remote control at the remote sensor of the Recorder.
	<ul style="list-style-type: none"> • The remote control is too far from the Recorder. 	<ul style="list-style-type: none"> • Operate the remote control within 23ft (7m).
	<ul style="list-style-type: none"> • This remote control use the same buttons for VCR and DVD functions (ex.PLAY). 	<ul style="list-style-type: none"> • When using a VCR, first press the VCR button. When using a DVD, first press the DVD button.
Camcorder image is not shown.	<ul style="list-style-type: none"> • Camcorder is off. 	<ul style="list-style-type: none"> • Turn camcorder on and operate properly.
Camcorder image via A/V input to Recorder is not shown on TV screen.	<ul style="list-style-type: none"> • The recorder's source is incorrect. 	<ul style="list-style-type: none"> • Use INPUT to select input channel (AV1 or AV2).
Timer recording is not possible.	<ul style="list-style-type: none"> • Clock in Record is not set to correct time. 	<ul style="list-style-type: none"> • Set clock to correct time.
	<ul style="list-style-type: none"> • Timer has been programmed incorrectly. 	<ul style="list-style-type: none"> • Reprogram Timer.
	<ul style="list-style-type: none"> • Ⓣ (TIMER) indicator light does not appear after programming timer. 	<ul style="list-style-type: none"> • Reprogram Timer and turn Record off to enable timer.



Symptom	Cause	Correction
Picture or sound of broadcasting channel is weak or missing.	• Antenna or cables are loose.	• Tighten connections or replace cable.
	• Wrong Tuning Band is selected in the Recorder Setup menu.	• Try [Tuning Band Select] options; see page 18 for details.
Can't play disc recorded on this Recorder on another DVD player.	• The disc was recorded in Video mode.	• Finalize the disc; see page 24.
	• Some players will not play even a finalized disc recorded in Video mode.	• No solution.
	• The disc was recorded in VR mode.	• The other player must be RW compatible in order to play it.
	• Discs recorded with copy-once material cannot be played on other players.	• No solution.
Cannot record or did not record successfully.	• The remaining blank space on the disc is insufficient.	• Use another disc.
	• The source you are trying to record is copy-protected.	• You cannot record the source.
	• When setting the recording channel, the channel is tuned on the TV's own tuner.	• Select the channel on the Recorder's built-in TV tuner.
	• When recording to a Video mode disc, programs that are copy-once protected cannot be recorded.	• Use a VR mode formatted disc for copy-once material.
Stereo Audio Record and/or Playback not present.	• TV is not Stereo-compatible.	• No solution.
	• Broadcast program is not in stereo format.	• No solution.
	• Recorder A/V Out jacks are not connected to TV A/V In jacks.	• Make A/V connections. Stereo is available only via A/V output from Recorder.
	• Recorder Audio/Video Out is not selected for viewing at the TV.	• Select AUX or A/V source as TV input.
	• Recorder's TV audio channel is set to SAP or MONO.	• Set TV audio channel mode to Stereo. See [Changing TV Audio Channel] on page 25.

Reset the Recorder

If you observe any of the following symptoms...

- When the Recorder is plugged in, but the power will not turn on or off.
- When the display window does not working.
- When the Recorder does not operate normally.

You can reset the Recorder as follows :

- Press and hold the  (POWER) button for more than five seconds. This will force the Recorder to power off. Press the  (POWER) button again to turn the Recorder back on.
- Unplug the power cord and then plug the power cord again after more than five seconds.

Specifications

General

Power requirements	AC 120V, 60 Hz
Power consumption	35W
Dimensions (approx.)	430 X 78.5 X 354 mm (16.9 x 3.1 x 13.9 inches) (w x h x d)
Mass (approx.)	5.6 kg (12.32 lbs)
Operating temperature	5°C to 35°C (41°F to 95°F)
Operating humidity	5 % to 90 %
Signal system	NTSC

Recording

Recording format	DVD-VIDEO
Recordable discs	DVD+ReWritable, DVD+Recordable
Recordable time	DVD ; Approx. 1 hour (XP mode), 2 hours (SP mode), 4 hours (LP mode), 6 hours (EP mode) VCR ; SP: 2 HOURS (T-120), SLP: 6 HOURS (T-120)/8 HOURS (T-160)

Video recording format

Sampling frequency	27MHz
Compression format	MPEG 2

Audio recording format

Sampling frequency	48kHz
Compression format	Dolby Digital

VCR Specifications

Head system	Four head helical scan azimuth system
Timer	12-hour display type with AM, PM
Tape speed	SP: 33.35 mm/sec, LP: 16.67 mm/sec, SLP: 11.12 mm/sec
Tape width	12.7 mm
Rewind time	About 65 seconds (T-120)
Antenna	75 ohms (VHF/UHF)
VHF output signal	Channel 3 or 4 (Switchable)
Channel coverage	VHF: 2-13, UHF: 14-69, CATV: 1-125 (4A, A-W, W+1 - W+84, A-5 - A-1)
Frequency range	20Hz to 20kHz
Signal-to-noise ratio	43dB
Dynamic range	88 dB
Channel separation	60 dB

DVD Specifications

Laser system	Semiconductor laser, wavelength 650 nm
Frequency response	DVD (PCM 48 kHz): 8 Hz to 22 kHz, CD: 8 Hz to 20 kHz
Signal-to-noise ratio	More than 95dB
Harmonic distortion	Less than 0.008%
Dynamic range	More than 90 dB

Inputs

ANTENNA IN	Antenna or CATV input, 75 ohms
VIDEO IN (AV1,2)	1.0 Vp-p 75 ohms, sync negative, RCA jack x 2
AUDIO IN (AV1,2)	-6 dBm more than 47 kohms, RCA jack (L, R) x 2
S-VIDEO IN	(Y) 1.0 V (p-p), 75 Ω , negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75 Ω

Outputs

VIDEO OUT	1 Vp-p 75 Ω , sync negative, RCA jack x 1
S-VIDEO OUT	(Y) 1.0 V (p-p), 75 Ω , negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75 Ω
COMPONENT VIDEO OUT (PROGRESSIVE SCAN)	(Y) 1.0 V (p-p), 75 Ω , negative sync, RCA jack x 1 (Pb)/(Pr) 0.7 V (p-p), 75 Ω , RCA jack x 2
Audio output (digital audio)	0.5 V (p-p), 75 Ω , RCA jack x 1
Audio output (analog audio)	1.1 Vrms (1 kHz, -6 dB), 600 Ω , RCA jack (L, R) x 2
RF OUT	Channel 3 or 4 (Switchable)

Accessory:

Video cable	1	Audio cable (L, R)	1
RF 75-ohm Coaxial Cable	1	Remote control	1
Batteries	2		

Design and specifications are subject to change without notice.

PHILIPS LIMITED WARRANTY

One (1) Year Labor and Parts Repair

PHILIPS CONSUMER ELECTRONICS warrants this product against defect in material or workmanship, subject to any conditions set forth as follows:

PROOF OF PURCHASE:

You must have proof of the date of purchase to receive warranted repair on the product. A sales receipt or other document showing the product and the date that you purchased the product as well as the authorized retailer included, is considered such proof.

COVERAGE:

(If this product is determined to be defective)

LABOR: For a period of one (1) year from the date of purchase, Philips will repair or replace the product, at its option, at no charge, or pay the labor charges to any Philips authorized repair facility. After the period of one (1) year, Philips will no longer be responsible for charges incurred.

PARTS: For a period of one (1) year from the date of purchase, Philips will supply, at no charge, new or rebuilt replacement parts in exchange for defective parts, through a Philips authorized service center.

Note: If Philips is unable to provide service in your area, receipt of the paid service can be submitted for consideration of adjustment or full reimbursement at Philips discretion.

EXCLUDED FROM WARRANTY COVERAGE

Your warranty does not cover:

- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- Product repair and/or part replacement because of improper installation, connections to improper voltage supply, abuse, neglect, misuse, accident, unauthorized repair or other cause not within the control of Philips.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- Damage occurring to product during shipping when improperly packaged or cost associated with packaging.
- Product lost in shipment and no signature verification of receipt can be provided.
- A product used for commercial or institutional purposes (including but not limited to rental purposes).
- Products sold AS IS or RENEWED.

CARRY-IN / SHIP-IN WARRANTY

For Carry-In warranty repair, take the product to a Philips authorized service center for repair. When the product has been repaired, you must pick up the unit at the center.

For Ship-In warranty repair, ship the product to a Philips authorized service center for repair in its original carton and packing material. If you do not have the original carton or packing material, have your product professionally packed for shipping. Ship product via a traceable carrier. When it is necessary for you to ship the product to Philips for repair, you will pay the shipping cost for shipment to Philips. Philips will pay the shipping costs when returning the product to you.

TO OBTAIN WARRANTY SERVICE IN THE U.S.A., PUERTO RICO, OR U.S. VIRGIN ISLANDS...

Contact Philips Customer Care Center at:
1-888-PHILIPS (1-888-744-5477)

TO OBTAIN WARRANTY SERVICE IN CANADA...

1-800-661-6162 (French Speaking)
1-888-PHILIPS (1-888-744-5477) - (English or Spanish Speaking)

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY FOR THE CONSUMER. PHILIPS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusions or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. In addition, if you enter into a service contract agreement with the PHILIPS partnership within ninety (90) days of the date of sale, the limitation on how long an implied warranty lasts does not apply.

This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.

Philips, P.O. Box 671539, Marietta, GA. 30006-0026

(Warranty: 4835 710 27175)