

Digital Video Disc Recorder Owner's Manual

DVDR72



Important!
Return your
Warranty
Registration Card
within 10 days.
See why inside.



NEED HELP? CALL US!

PHILIPS REPRESENTATIVES ARE READY TO HELP YOU WITH ANY QUESTIONS ABOUT YOUR NEW PRODUCT. WE CAN GUIDE YOU THROUGH CONNECTIONS, FIRST-TIME SETUP, AND ANY OF THE FEATURES. WE WANT YOU TO START ENJOYING YOUR NEW PRODUCT RIGHT AWAY.

**CALL US BEFORE YOU CONSIDER
RETURNING THE PRODUCT.
1-800-531-0039**

OR VISIT US ON THE WEB AT WWW.PHILIPS.COM



PHILIPS

Return your Warranty Registration card today to ensure you receive all the benefits you're entitled to.

Once your PHILIPS purchase is registered, you're eligible to receive all the privileges of owning a PHILIPS product. So complete and return the Warranty Registration Card enclosed with your purchase at once. And take advantage of these important benefits.

Warranty Verification

Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your PHILIPS warranty.

Owner Confirmation

Your completed Warranty Registration Card serves as verification of ownership in the event of product theft or loss.

Model Registration

Returning your Warranty Registration Card right away guarantees you'll receive all the information and special offers which you qualify for as the owner of your model.

PHILIPS

Congratulations on your purchase, 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.

Sincerely,




Lawrence J. Blanford
President and Chief Executive Officer


P.S. Remember, to get the most from your PHILIPS product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!



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 PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

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

ATTENTION: Pour éviter les chocs 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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4 Safety Information

Safety Precautions

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

Federal Communications Commission (FCC) Warning: Any unauthorized changes or modifications to this equipment void the user's authority to operate it.

Laser Safety

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

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. The set complies with the FCC-Rules, Part 15 and with 21 CFR 1040.10.

CAUTION: Visible and invisible laser radiation when open and interlock defeated. Do not stare into the beam. The beam is located inside, near the deck mechanism.

Special Information for Canadian Users

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.

CET APPAREIL NUMÉRIQUE N'ÉMET PAS DE BRUITS RADIOÉLECTRIQUES DÉPASSANT LES LIMITES APPLICABLES DANS LA RÈGLEMENT SUR LE BROUILLAGE RADIOÉLECTRIQUES ÉDICTÉ PAR LE MINISTÈRE DES COMMUNICATIONS DU CANADA.

Radio/TV Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, try to correct the interference by one or more of the following measures:

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

WARNING:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT:

This product was FCC verified under test conditions that included use of shielded cables and connectors between system components. Use shielded cables to reduce the possibility of causing interference to radios, televisions, and other electronic devices. If you have any problems, contact your supplier.

Copyright Protection

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


Note to Cable TV Installer

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

Declaration of Conformity

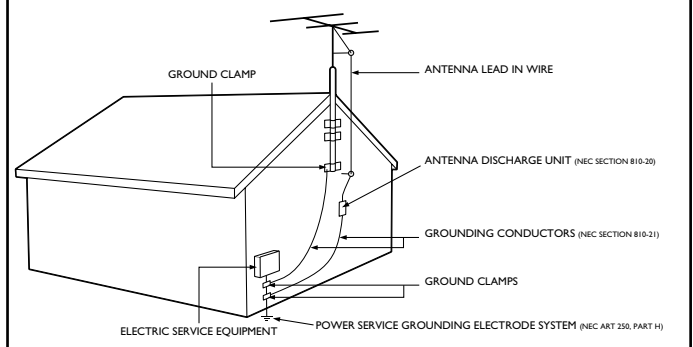
Model Number: DVDR72
Trade Name: Philips
Responsible Party: Philips Consumer Electronics
P.O. Box 14810, Knoxville, TN 37914-1810
(865) 521-4316

IMPORTANT SAFETY INSTRUCTIONS

1. Read instructions. Read all the safety and operating instructions before operating the product.
2. Retain instructions. Keep the safety and operating instructions for future reference.
3. Heed warnings. Adhere to all warnings on the product and in the operating instructions.
4. Follow instructions. Follow all operating and use instructions.
5. Cleaning – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments – Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture – Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, etc.
8. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
9. Move a product and cart combination with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10. Ventilation – Slots and openings in the cabinet provide ventilation, ensure reliable operation of the product, and protect it from overheating. Do not block or cover these openings. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. Do not place this product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11. Power Sources – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. Grounding or Polarization – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13. Power-Cord Protection – Route power supply cords so they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
14. Outdoor Antenna Grounding – If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See figure at right.
15. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

16. Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, take extreme care to keep it from touching such power lines or circuits; contact with them might be fatal.
17. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles. This can result in a risk of fire or electric shock.
18. Object and Liquid Entry – Never push objects of any kind into this product through openings; they may touch dangerous voltage points or short out parts, resulting in a fire or electric shock. Never spill liquid of any kind on the product.
19. Servicing – Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
20. Damage Requiring Service – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a) When the power supply cord or plug is damaged,
 - b) If liquid has spilled or objects have fallen into the product,
 - c) If the product has been exposed to rain or water,
 - d) If the product does not operate normally by following the operating instructions. Adjust only those controls covered by the operating instructions. An improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
 - e) If the product has been dropped or damaged in any way,
 - f) When the product exhibits a distinct change in performance. This indicates a need for service.
21. Replacement Parts – When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
22. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
23. Wall or Ceiling Mounting – Mount the product to a wall or ceiling only as recommended by the manufacturer.
24. Heat – Situate this product away from heat sources, such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
25. Battery usage CAUTION - To prevent battery leakage that may result in bodily injury, property damage, or damage to the unit:
 - Install all batteries correctly, with + and - aligned as marked on the unit.
 - Do not mix batteries (old/new, carbon/alkaline, etc.).
 - Remove batteries when the unit is not used for a long time.

Example of Antenna Grounding per National Electrical Code



6 Introduction

Welcome!

Your Philips DVD Recorder both records DVD+RWs/DVD+Rs and plays prerecorded DVDs. You can record TV programs, duplicate camcorder recordings, and quickly access your recordings in the Index Picture Screen. Plus, the recordings you make on the Recorder will play on some DVD Players and DVD-ROM drives. You'll soon appreciate the digital picture and sound quality of DVD, DVD+RW, and DVD+R, which will exceed the quality you have had with videotapes.

Read this manual carefully to understand the latest features, then enjoy your new DVD Recorder.

Features

- Digital Video (DV) connection
- Fast Forward/Reverse Search
- Index Picture Screen
- NTSC/PAL compatibility
- Paused/Slow/Step-by-Step/Zoomed Play
- Progressive Scan compatibility
- Repeat and Repeat A-B playback
- Time Search
- VCR Plus+ Programming

Package Contents

- DVD Recorder
- Remote control with two AA batteries
- AC power cord
- One blank Philips DVD+RW
- One RF coaxial cable (black with silver tip, with single prong in center of tip)
- One three-strand Component Video Cable (with blue, green, and red markings)
- Two two-strand audio cables (with red and white markings)
- One composite video cable (with yellow markings)
- This owner's manual and registration materials

Environmental Information

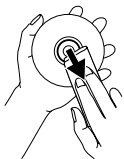
Your system has materials that can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries, and old equipment.

Safety Information

- Do not expose the Recorder to excessive moisture, rain, sand, or heat sources.
- Place the DVD Recorder on a firm, flat surface.
- Keep the Recorder away from domestic heating equipment and direct sunlight.
- When placing the Recorder in a cabinet, allow about one inch of space all around the Recorder for ventilation.

Cleaning Discs

- When a Disc becomes dirty, clean it with a cleaning cloth. Wipe the Disc from the center to the edge in a straight line. Do not wipe the Disc in a circular motion.



- Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for analog discs.
- Always keep the tray closed to avoid dust on the lens.
- The lens may cloud over if you suddenly move the DVD Recorder from cold to warm surroundings. Playing a Disc is not possible then. Leave the power on for about one hour with no Disc in the Recorder until normal playback is possible.

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VCR Plus+ and PlusCode are registered trademarks of the Gemstar Development Corporation. The VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

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This DVD Recorder will play various types of Discs. Some Disc types will only play on the Recorder; others will record in the Recorder; some will record and play. There are also a few types of Discs that will neither play nor record on this Recorder. Look for these logos on your Discs to determine whether the Disc will or will not play or record on the Philips DVD Recorder.

Discs for Recording and Playing



DVD+RW (Digital Video Disc + Rewritable): These Discs can be recorded on repeatedly. Recordings can be erased, then you can record again on the same Disc.



DVD+R (Digital Video Disc + Recordable): These Discs can be recorded only once. After you finalize a DVD+R, you cannot record on it or edit it any more.

Discs Unsuitable for Recording or Playing



DVD-RAM



DVD-Audio

Discs for Playing Only



DVD (Digital Video Disc)



Video CD
Similar to DVDs, these Discs hold less material. For example, a two-hour movie will fit on one DVD, but may take two VCDs.



DVD-R (DVD-Recordable)
You cannot record on these Discs using the Philips DVD Recorder.



Super Video CD



DVD-RW (DVD-Rewritable)
You cannot record on these Discs using the Philips DVD Recorder. These Discs play only if recorded in video mode and finalized.



CD-R (CD-Recordable)



Audio CD
(Compact Disc Digital Audio)



CD-RW (CD-Rewritable)



Super Audio CD
(plays only the CD layer, if present)

DVD Region Codes and Color Systems

DVDs must meet the requirements for Region Codes and Color Systems before you can use them with the DVD Recorder. DVDs must be labelled for ALL regions or for Region 1 in order to play on this DVD Recorder. You cannot play Discs that are labeled for other regions. These symbols must appear on your DVDs, or you cannot play the DVD in this DVD Recorder. These symbols might also appear on the Disc's case or packaging.

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



Furthermore, recordings are made according to different color systems throughout the world. The most common color systems are NTSC, which is used primarily in the United States and North America, PAL, and SECAM.

This DVD Recorder is compatible with NTSC and PAL. Make sure the Discs you play were recorded in NTSC or PAL. The color system of the DVD may appear on the DVD or its case.

However, when playing a PAL Disc, the Recorder must be connected to a PAL-compatible TV using either the S-VIDEO (Y/C) or COMPONENT VIDEO (Y Pb Pr) jacks of the Recorder. The Recorder's VIDEO (CVBS) jack does not send a clear PAL signal. If a PAL Disc is copy-protected, the picture may not be correct if you are using the COMPONENT VIDEO (Y Pb Pr) jacks.

8 General Information

Battery Installation

- 1 Remove the battery compartment lid** on the rear of the remote control by pressing in the tab, then lifting off the lid.
- 2 Place two AA batteries inside the battery compartment with their + and – ends aligned as indicated.** Do not mix old and new batteries or different types of batteries (standard, alkaline, etc.).
- 3 Replace the battery compartment lid.** You will hear it click into place.

Using the Remote Control

Unless stated otherwise, the remote control can operate all the features of the DVD Recorder. Always point the remote control directly at the remote sensor on the front of the DVD Recorder, not the TV. See *page 24*.

Make sure there are no barriers between the remote and the Recorder. The remote control also will operate some features of some Philips TVs. See *pages 22-23*.

DVD Disc Menus...

Some explanations in this manual describe the DVD Disc Menus, which vary among DVDs. Movie producers set these menus, and not all DVDs have menus. But, if the DVD has a menu, access it by pressing the DISC MENU button on the remote control. See *page 34*.

DVD Recorder Menus...

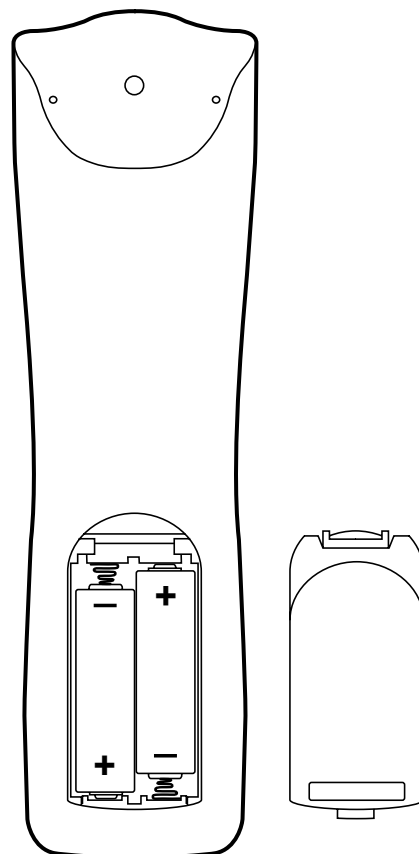
Some instructions explain how to use the Recorder's System Menu or Menu Bars to set up features of the Recorder or the Disc. You get to the System Menu by pressing SYSTEM MENU on the remote control. See *page 30*. Even if a feature is set up in the Recorder's menu, it will not be available if the current Disc does not include that feature.

DVD Player Upgrades

If a DVD does not play properly, please contact Philips at 1-800-531-0039 for assistance. Due to the inconsistency of Disc formats provided by various Disc manufacturers, your DVD Recorder may require a playability enhancement. As DVD technology has advanced, these enhancements have become both common and easy to complete.

Available Disc Features...

Features in this manual may not be available on every Disc. If the feature is not available, you cannot use the Recorder to make it available. An "X" will appear in the top left corner of the TV screen if you try to access a feature that is not available on the current Disc.



Determining the best possible connection...

Your existing equipment, especially your TV, will determine your connection. These guidelines describe which options provide the best picture and sound quality.

- ★★★★ Component Video provides the best picture quality. Progressive Scan Component Video has the highest quality, but use it only if the TV has Progressive Scan. See pages 12 and 60.
- ★★★ S-Video provides excellent picture quality. See page 13.
- ★★ Composite Video (a yellow Video jack) provides good picture quality. See page 14.
- ★★ **Your TV may have only an RF-style jack, usually labeled Antenna In or 75 ohm.** You can use an RF coaxial cable for a simple connection. See page 10.

- ★★★★ Digital audio connections provide the clearest sound. Connect the Recorder's Coaxial DIGITAL AUDIO OUT jack to your Stereo for the best sound quality. See page 16.
- ★★★ For the most common audio connection, connect the Recorder's white/red OUT AUDIO L/R (left/right) jacks to the Audio In jacks of your Stereo or TV. See pages 12-15.

Before you begin...

- Refer to the manuals of your TV, Stereo, Cable Box, or other equipment as necessary. Note the jacks and connectors on the other equipment. Determine how to choose different Audio and Video In channels on your other equipment so you can see and hear the DVD Recorder on the TV, Stereo, etc.
- Disconnect all equipment from the power outlets. Connect the equipment to the power outlets only after you have finished hooking up everything. Never make or change connections with equipment connected to the power outlet.

Remember...

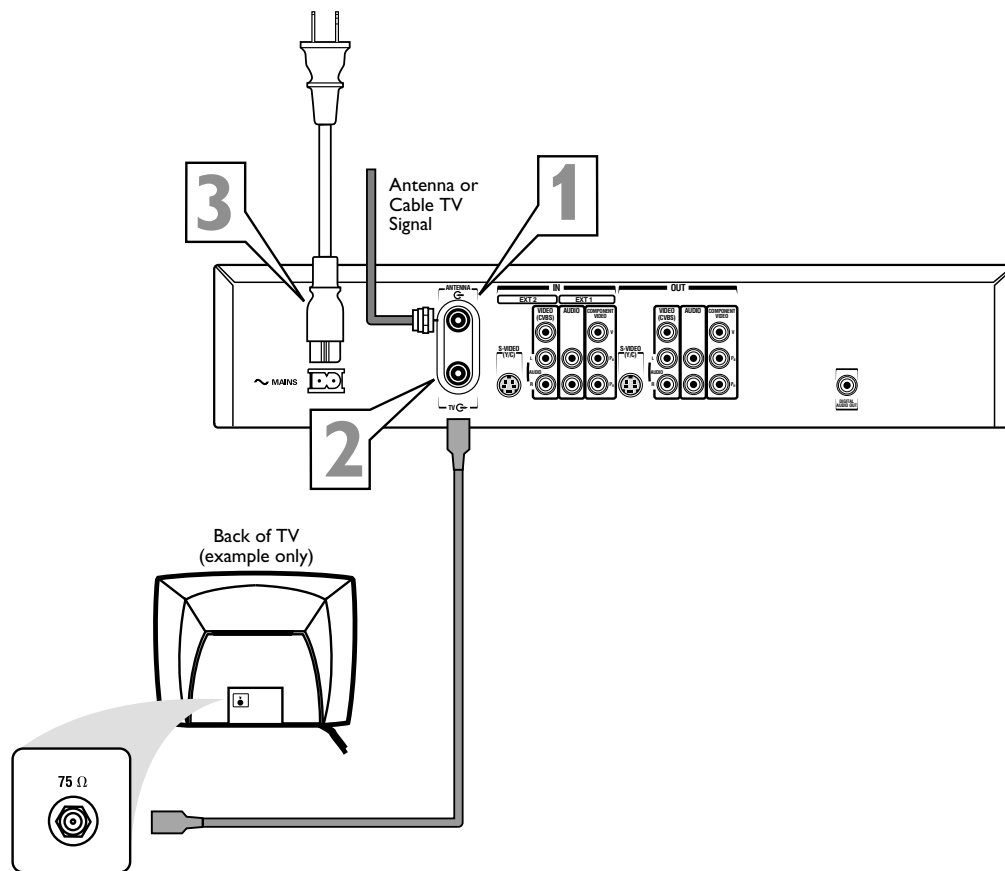
- **Set the TV to the correct Video In channel or channel 3.**
This is channel 3 if you connect the Recorder directly to a TV only as shown on page 10.
Otherwise, Video In channels may be called AUX or AUXILIARY IN, AUDIO/VIDEO or A/V IN, EXT1 or EXT2 or External In, etc. These channels often are near TV channel zero (0). Or, your TV remote control may have a button or switch that lets you choose the Video In channel directly. See your TV manual for details. Or, go to your lowest TV channel and change channels down until you see the blue Philips DVD background picture on the TV screen.
- Connect the Recorder directly to the TV. For example, do not connect the Recorder to a VCR, then connect the VCR to a TV. This may distort the picture and sound. Your VCR may have the copy protection system, which could distort the DVD image.
- Set the Stereo to the correct channel or "source" mode.
- Do not connect the Recorder's AUDIO OUT jacks to the PHONO IN jack of your Stereo.
- You only need one audio connection and one video connection between the Recorder and your TV (or TV and Stereo). You will not use all the jacks on the Recorder.
- **You can use the DVD Recorder to preserve your memories by copying a videotape to a DVD+R or DVD+RW. Special connections are needed between the DVD Recorder and your camcorder or VCR, which will play the existing videotape into the DVD Recorder for recording. See page 17 for details.**

Once you determine the option that best fits with your existing equipment, find your choice on pages 10-16. Follow the steps for the hookup you chose.

When you finish your connections and turn on the Recorder for the first time, complete the Initial Setup. This sets up TV channels, menu languages, and other features. Go to page 18 to do the Initial Setup.

10 Hookups (cont'd)

Connecting to a TV Only TV has only an Antenna In jack



1 Connect your **Antenna or Cable TV** signal to the **ANTENNA** jack on the rear of the **DVD Recorder**. Your antenna or Cable TV signal may have been connected to your TV. If so, disconnect it from the TV and connect it to the Recorder's ANTENNA jack.

2 Connect the supplied RF coaxial cable to the **TV** jack on the rear of the DVD Recorder. Connect the other end of the same RF coaxial cable to the **Antenna In** jack on your TV. Your TV's Antenna In jack may be labelled RF In, Antenna In, or 75 ohm. Check your TV's manual for details.

3 Connect the supplied power cord to the **MAINS (AC Power)** jack on the rear of the **DVD Recorder**. Connect the power cords of the Recorder and the TV to a power outlet.

4 Press **STANDBY-ON**  on the front of the Recorder to turn it on.

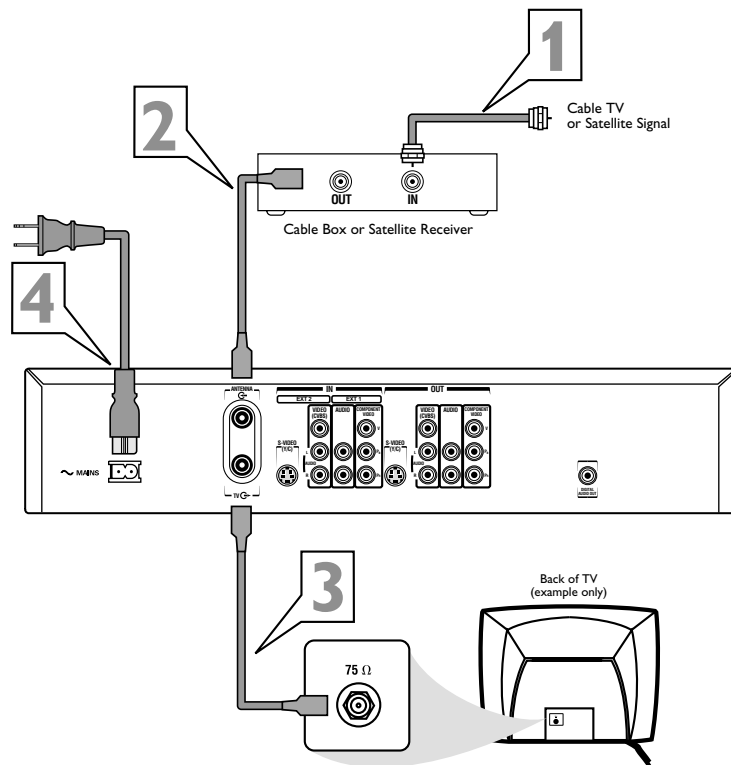
5 Turn on the **TV** power. Set it to **channel 3**. You should see the blue Philips DVD background picture or the Initial Setup screen on the TV. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.

You may need to use channel 4 at your TV instead. While "IS TV ON? C03" appears on the Recorder's display panel, press and hold the Number 4 button on the Recorder's remote control. After several seconds, the display will change to "IS TV ON? C04." Set your TV to channel 4. The Initial Setup screen should appear. (To go back to using channel 3 at the TV, press and hold the Number 3 button on the remote instead.)

Helpful Hint

- If "IS TV ON? C03" appears on the display panel, you need to turn on your TV and set it to channel 3. This is part of the Initial Setup. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct Video In channel (channel 3 for this connection).

Connecting to a TV and a Cable Box or Satellite Receiver




1 Connect your Satellite or Cable TV signal to the **ANTENNA IN** jack on your Cable Box/Satellite Receiver.

2 If your Cable Box/Satellite Receiver has a single **ANTENNA OUT** or **TO TV** jack: Connect the supplied RF coaxial cable to the **ANTENNA OUT/TO TV** jack of the Cable Box/Satellite Receiver and to the **ANTENNA** jack on the rear of the DVD Recorder.

If your Cable Box/Satellite Receiver has AUDIO/VIDEO OUT jacks: Connect them to the Recorder's IN EXT 2 VIDEO (CVBS) and AUDIO L/R jacks. These jacks are red and white (AUDIO) and yellow (VIDEO). Use the supplied audio and video cables, which have red/white/yellow markings. Or, use the Recorder's IN EXT 2 S-VIDEO (Y-C) jack (instead of CVBS) if your Cable Box/Satellite Receiver has an S-Video Out jack.

3 Connect another RF coaxial cable to the Recorder's **TV** jack and to the **ANTENNA IN** or **RF IN** jack on your TV. Your TV's Antenna In jack may be labelled RF In or 75 ohm. Check your TV manual for details. Or, use an Audio/Video connection between the Recorder and the TV. See pages 12-14.

4 Connect the supplied power cord to the **MAINS (AC Power)** jack on the rear of the DVD Recorder. Connect the power cords of the Recorder, Cable Box/Satellite Receiver, and TV to a power outlet.

5 Press **STANDBY/ON**  on the front of the Recorder to turn it on. Set the Recorder to channel 3 or 4 (your Cable Box/Satellite Receiver's output channel) if you used an RF coaxial cable to connect the Cable Box/Satellite Receiver to the DVD Recorder. Set the Recorder to **EXT 2** if you used those jacks on the Recorder to connect to the Cable Box/Satellite Receiver.

6 Turn on the TV and the Cable Box/Satellite Receiver. Set the TV to channel 3 to receive the picture from the Recorder (if you used the RF coaxial cable as shown for step 3).

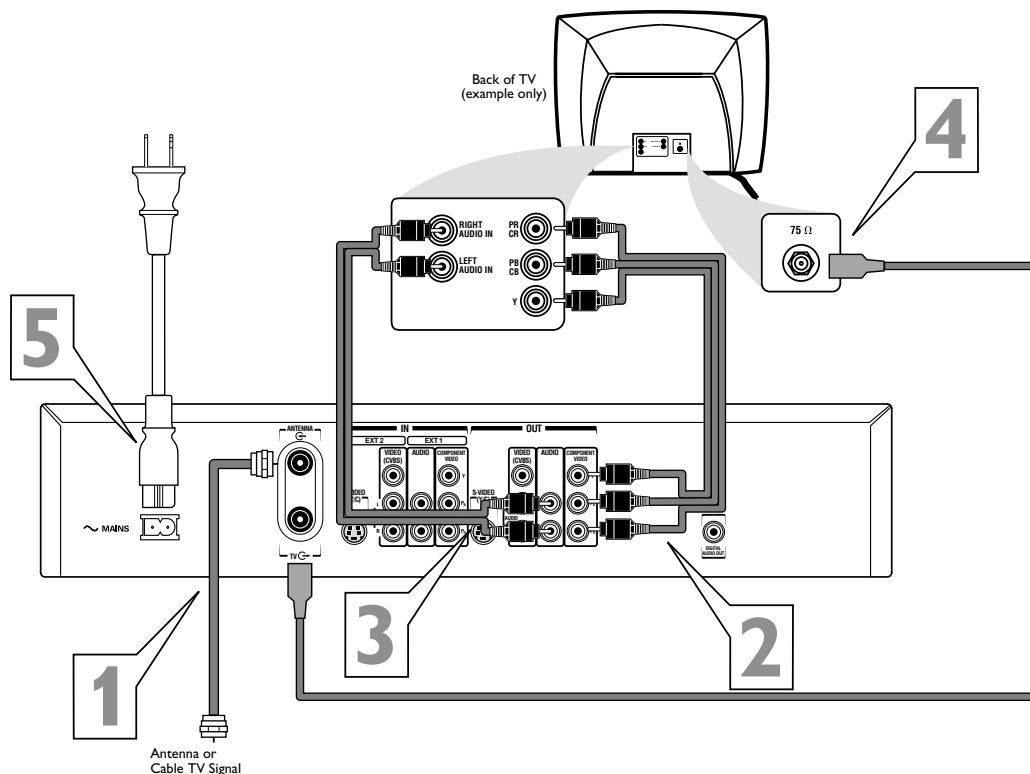
You should see the blue Philips DVD background picture or the Initial Setup screen on the TV. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.

Helpful Hints

- To watch TV, put the Recorder in Monitor mode and on channel 3 or 4. (Press **MONITOR** on the Recorder's remote.) Change TV channels at your Cable Box or Satellite Receiver.
- If "IS TV ON? C03" appears on the display panel, you need to turn on your TV and set it to channel 3. This is part of the Initial Setup. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct Video In channel.
- You may need to use channel 4 at your TV instead. While "IS TV ON? C03" appears on the Recorder's display panel, press and hold the Number 4 button on the Recorder's remote. After several seconds, the display will change to "IS TV ON? C04." Set your TV to channel 4. The Initial Setup screen should appear.

12 Hookups (cont'd)

Connecting to a TV Only TV has Component Video In Jacks




1 Connect your Antenna or Cable TV signal to the ANTENNA jack on the rear of the DVD Recorder.

2 Connect the Recorder's OUT COMPONENT VIDEO (Y Pb Pr) jacks to the TV's COMPONENT VIDEO IN jacks. Use the supplied three-strand component video cable, which has red, blue, and green markings. Match the cable colors to the jack colors.

3 Connect the Recorder's white/red OUT AUDIO L/R (left/right) jacks to the TV's left/right AUDIO IN jacks. Use a supplied two-strand audio cable, which has red and white markings. Match cable colors to jack colors.

4 Connect the supplied RF coaxial cable to the Recorder's TV jack and to the Antenna In jack on your TV. Your TV's Antenna In jack may be labelled RF In, Antenna In, or 75 ohm. Check your TV's manual for details.

5 Connect the supplied power cord to the MAINS (AC Power) jack on the rear of the DVD Recorder.
Connect the power cords of the Recorder and the TV to a power outlet.

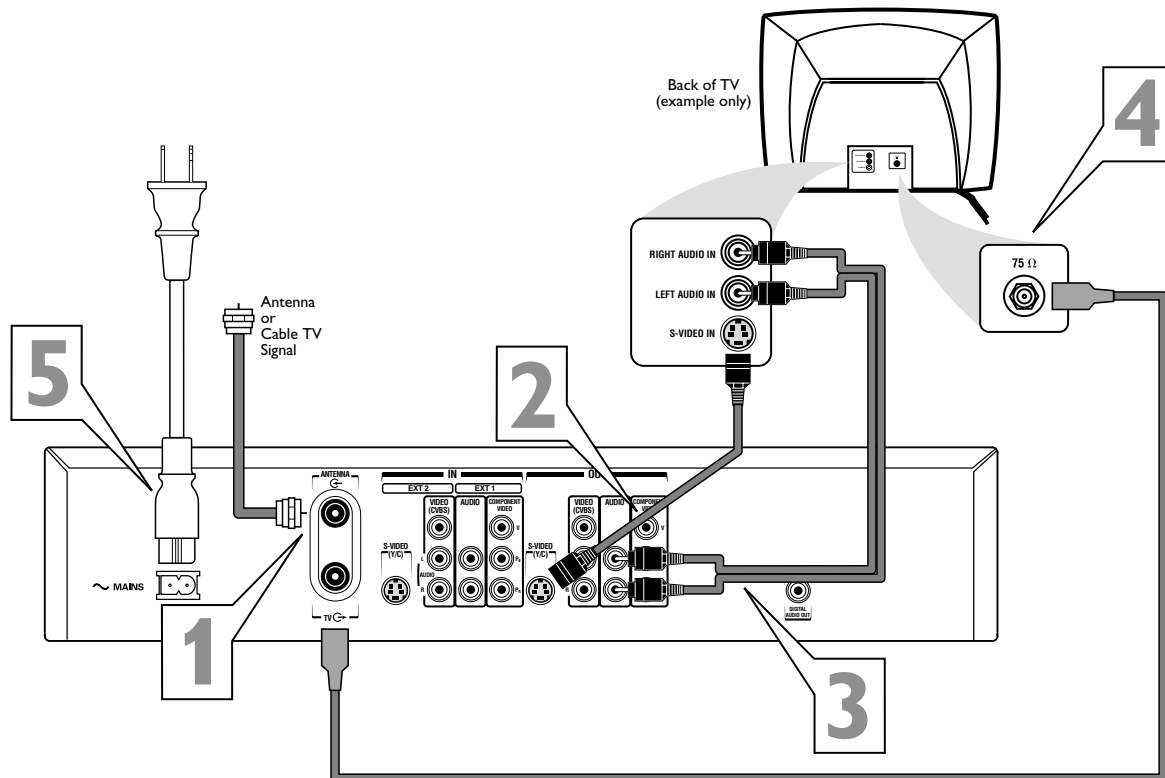
6 Press **STANDBY-ON**  on the front of the Recorder to turn it on. If "IS TV ON? CO3" appears on the display panel, you need to turn on your TV and set it to the correct Component Video In channel. (See next step.) This is part of the Initial Setup of the Recorder. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct Component Video In channel.


7 Turn on the TV power. Set the TV to the Component Video In channel. It is not channel 3 or 4 when you use Component Video. See your TV owner's manual for details. Your TV remote may have a button or switch that selects the Component Video In channel. Or, go to your lowest TV channel and change channels down until you see the DVD background picture or Initial Setup screen on the TV. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.

Helpful Hints

- If your TV has **Progressive Scan**, connect the Recorder's OUT COMPONENT VIDEO (Y Pb Pr) jacks to the TV's Progressive Scan In jacks instead. Progressive Scan produces a clearer picture by doubling the number of visible picture lines per field, providing a jitter-free, sharp, quiet picture. Check your TV manual for details.
Set the Recorder's Video output to Progressive Scan. See page 60.
- On the TV, the Component Video In jacks may be labeled YUV or Pr/Cr Pb/Cb Y and may be green, blue, and red.

Connecting to a TV Only TV has an S-Video In Jack



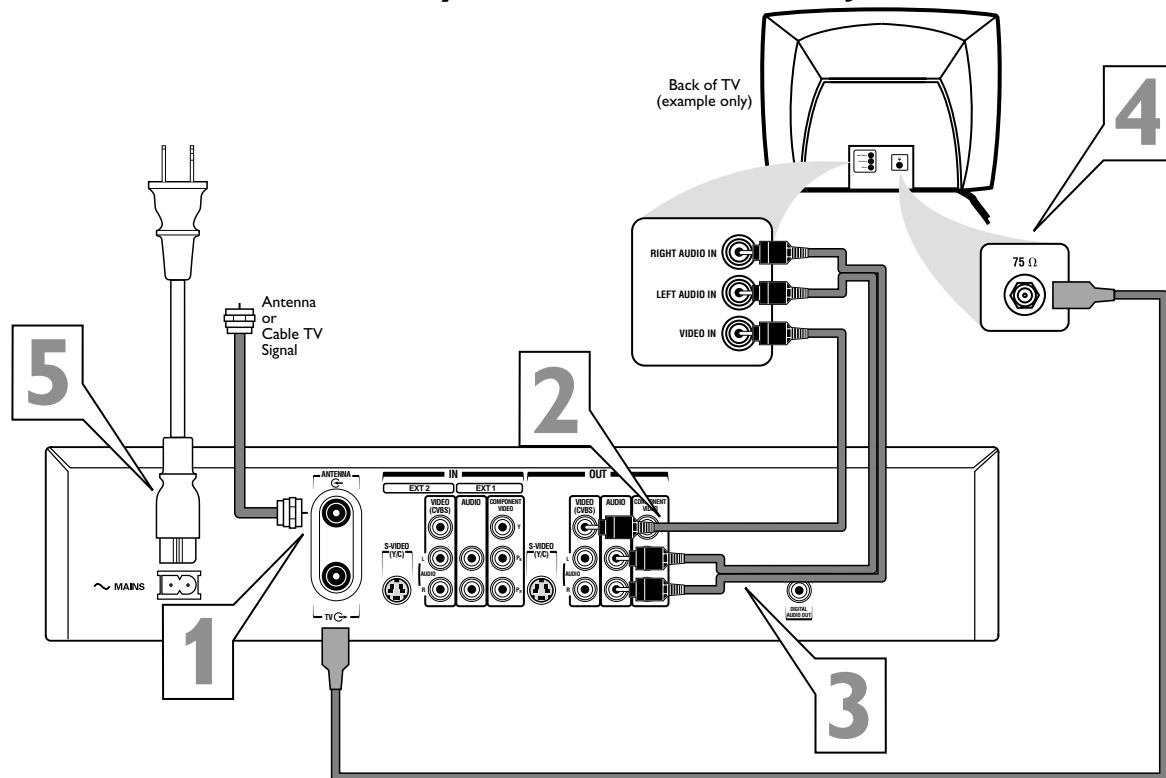
- 1** Connect your Antenna or Cable TV signal to the **ANTENNA** jack on the rear of the DVD Recorder.
- 2** Connect an S-Video cable (not supplied) to the Recorder's **OUT S-VIDEO (Y-C)** jack and to the TV's **S-VIDEO In** jack.
- 3** Connect a supplied two-strand audio cable to the Recorder's white/red **OUT AUDIO L/R (left/right)** jacks and to the left/right **AUDIO IN** jacks on the TV. The supplied two-strand audio cable has red and white markings. Match the cable colors to the jack colors.
- 4** Connect the supplied RF coaxial cable to the **TV** jack on the rear of the DVD Recorder. Connect the other end of the same RF coaxial cable to the **Antenna In** jack on your TV. Your TV's Antenna In jack may be labelled RF In, Antenna In, or 75 ohm. Check your TV's manual for details.
- 5** Connect the supplied power cord to the **MAINS (AC Power)** jack on the rear of the DVD Recorder. Connect the power cords of the Recorder and the TV to a power outlet.
- 6** Press **STANDBY-ON**  on the front of the Recorder to turn it on. If "ISTV ON? C03" appears on the display panel, you need to turn on your TV and set it to the S-Video In channel. (See next step.) This is part of the Initial Setup of the DVD Recorder. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct S-Video In channel.
- 7** Turn on the TV power. Set the TV to the **S-Video In** channel. This is not channel 3 or 4 when you are using S-Video. Your TV remote may have a button or switch that selects the S-Video In channel. Or, go to your lowest TV channel and change channels down until you see the DVD background picture or Initial Setup screen on the TV screen. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.


Helpful Hint

- On the TV, the S-Video In jack may be labeled Y/C, S-Video, or S-VHS (super video).

14 Hookups (cont'd)

Connecting to a TV Only TV has a yellow CVBS Video In jack

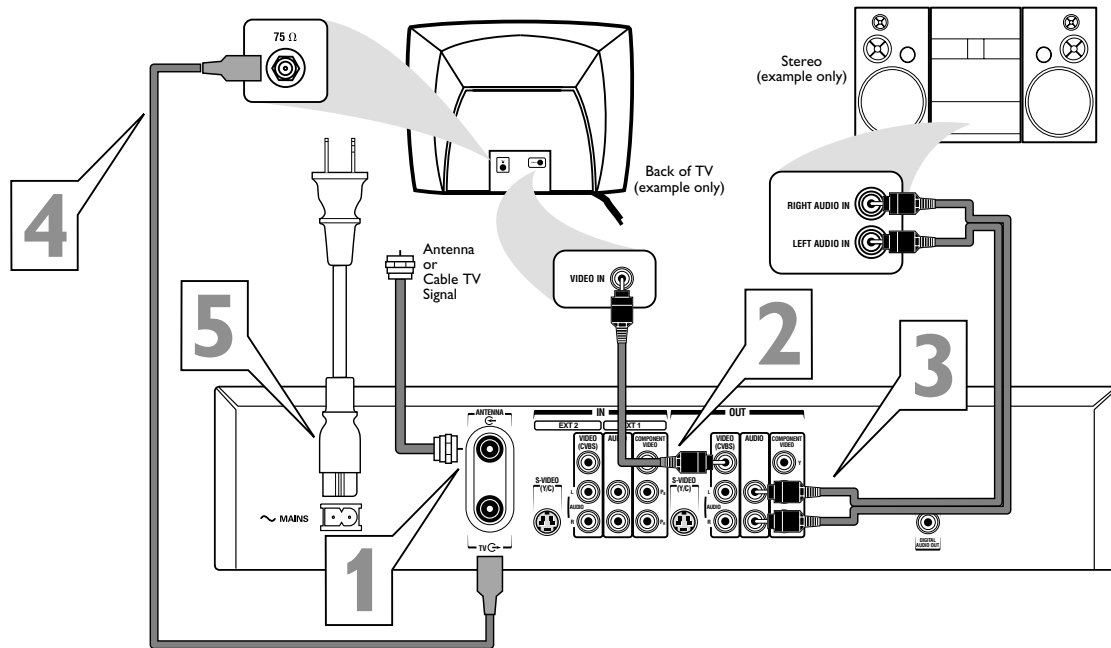



- 1** Connect your Antenna or Cable TV signal to the **ANTENNA** jack on the rear of the DVD Recorder.
- 2** Connect the Recorder's yellow **OUT VIDEO (CVBS)** jack to your TV's **VIDEO IN** jack. Use the supplied video cable that has yellow markings.
- 3** Connect a supplied two-strand audio cable to the Recorder's white/red **OUT AUDIO L/R (left/right)** jacks and to the left/right **AUDIO IN** jacks on your TV. The supplied two-strand audio cable has red and white markings. Match the cable colors to the jack colors.
- 4** Connect the supplied RF coaxial cable to the **TV** jack on the rear of the Recorder. Connect the other end of the same RF coaxial cable to the **Antenna In** jack on your TV. Your TV's Antenna In jack may be labelled RF In, Antenna In, or 75 ohm. Check your TV manual for details.
- 5** Connect the supplied power cord to the **MAINS (AC Power)** jack on the rear of the DVD Recorder. Connect the power cords of the Recorder and the TV to a power outlet.
- 6** Press **STANDBY-ON**  on the front of the Recorder to turn it on. If "IS TV ON? CO3" appears on the display panel, you need to turn on your TV and set it to the correct Video In channel. (See next step.) This is part of the Initial Setup of the DVD Recorder. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct Video In channel.
- 7** Turn on the TV power. Set the TV to the correct Audio/Video In channel. Such channels may be called AUX or AUXILIARY IN, AUDIO/VIDEO or A/V IN, EXT1 or EXT2 or External In, etc. This is not channel 3 or 4. See your TV manual. Your TV remote may have a button or switch that selects the Video In channel. Or, go to your lowest TV channel and change channels down until you see the DVD background picture or Initial Setup screen. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.

Helpful Hint

- The TV's Video In jack is usually yellow. It may be labeled video, CVBS, composite, or baseband.

Connecting to a TV and a two-channel Stereo (Stereo has Dolby Pro Logic or right/left Audio In jacks)



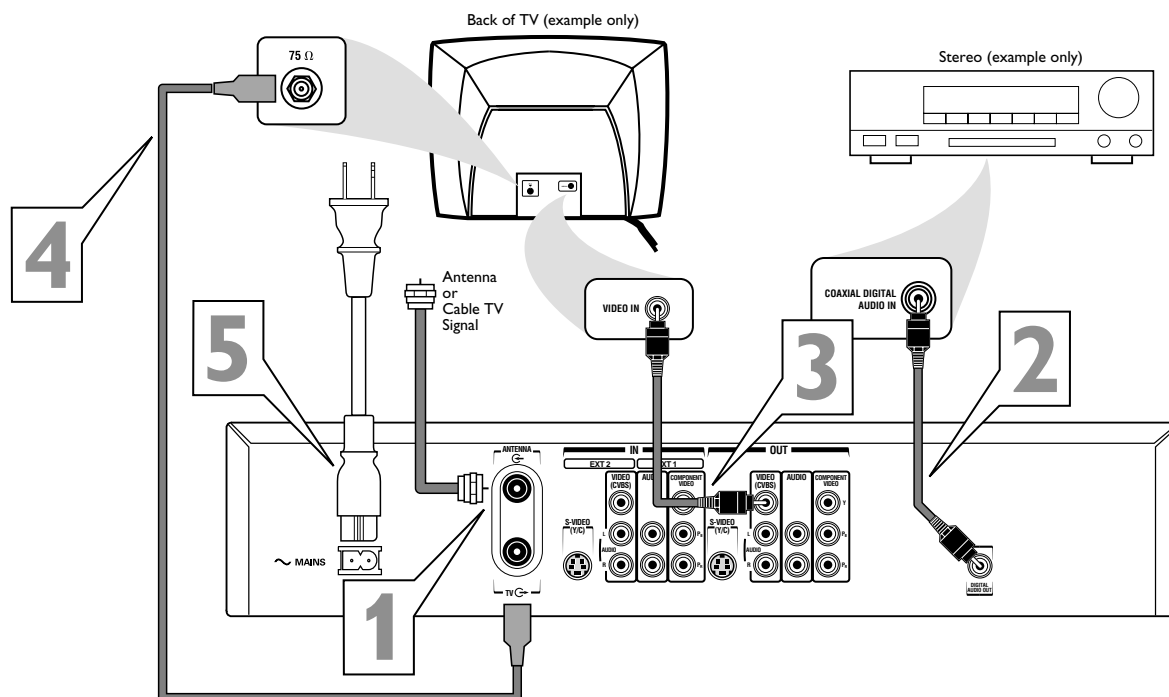
- 1** Connect your Antenna or Cable TV signal to the **ANTENNA** jack on the rear of the DVD Recorder.
- 2** Connect the Recorder's yellow **OUT VIDEO (CVBS)** jack to your TV's **VIDEO IN** jack. Use the supplied video cable that has yellow markings.
- 3** Connect a supplied two-strand audio cable to the Recorder's white/red **OUT AUDIO L/R (left/right)** jacks and to the left/right **AUDIO IN** jacks on the Stereo. The supplied two-strand audio cable has red and white markings. Match the cable colors to the jack colors.
- 4** Connect the supplied RF coaxial cable to the **TV** jack on the rear of the Recorder. Connect the other end of the same RF coaxial cable to the **Antenna In** jack on your TV. Your TV's Antenna In jack may be labelled RF In, Antenna In, or 75 ohm. Check your TV manual for details.
- 5** Connect the supplied power cord to the **MAINS (AC Power)** jack on the rear of the DVD Recorder. Connect the power cords of the Recorder, Stereo, and TV to a power outlet.
- 6** Turn on the Stereo and set it to the correct Audio In channel or sound source. Refer to the Stereo owner's manual.
- 7** Press **STANDBY-ON**  on the front of the Recorder to turn it on. If "ISTV ON? CO3" appears on the display panel, you need to turn on your TV and set it to the correct Video In channel. (See next step.) This is part of the Initial Setup of the DVD Recorder. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct Video In channel.
- 8** Turn on the TV power. Set the TV to the correct Video In channel. Such channels may be called AUX or AUXILIARY IN, AUDIO/VIDEO or A/V IN, EXT1 or EXT2 or External In, etc. This is not channel 3 or 4. See your TV manual. Your TV remote may have a button or switch that selects the Video In channel. Or, go to your lowest TV channel and change channels down until you see the DVD background picture or Initial Setup screen. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.

Helpful Hints

- Set Analog output accordingly. See page 62.
- To use S-Video or Component Video instead, see pages 12-13. You only need one video connection. Choose the correct Video In channel at the TV.

16 Hookups (cont'd)

Connecting to a TV and a Digital Stereo (Stereo has Dolby Digital™, MPEG2, or Digital Theater System)



1 Connect your Antenna or Cable TV signal to the **ANTENNA** jack on the rear of the DVD Recorder.


2 Connect the Recorder's Coaxial **DIGITAL AUDIO OUT** jack to your Stereo's **COAXIAL DIGITAL AUDIO IN** jack. Use a coaxial digital audio cable (not supplied). You can use the supplied CVBS video cable (with yellow markings) instead if you are not using it for your video connection.

3 Connect the Recorder's yellow **OUT VIDEO (CVBS)** jack to your TV's **VIDEO IN** jack. Use the supplied video cable that has yellow markings.

4 Connect the supplied RF coaxial cable to the **TV** jack on the rear of the Recorder. Connect the other end of the same RF coaxial cable to the **Antenna In** jack on your TV. Your TV's Antenna In jack may be labelled RF In, Antenna In, or 75 ohm. Check your TV manual for details.

5 Connect the supplied power cord to the **MAINS (AC Power)** jack on the rear of the DVD Recorder. Connect the power cords of the Recorder, Stereo, and TV to a power outlet.

6 Turn on the Stereo power and set your Stereo to the correct **Digital Audio In** channel or sound source. Refer to the Stereo owner's manual.

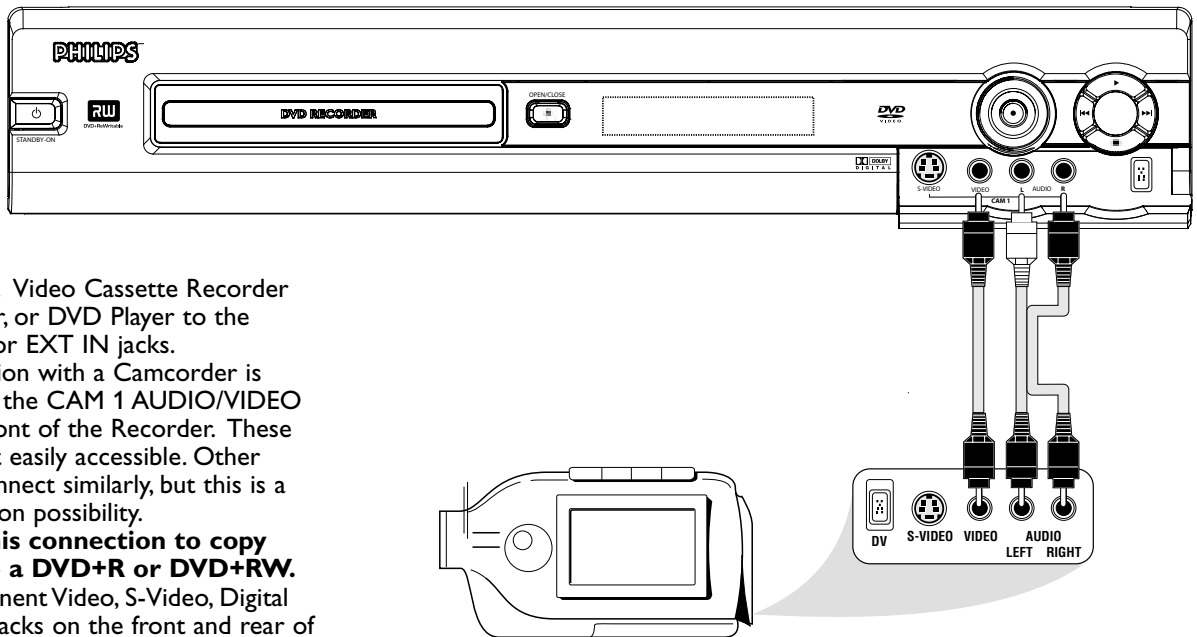
7 Press **STANDBY-ON**  on the front of the Recorder to turn it on. If "IS TV ON? CO3" appears on the display panel, you need to turn on your TV and set it to the correct Video In channel. (See next step.) This is part of the Initial Setup of the DVD Recorder. You cannot see the Initial Setup screens until you turn on the TV and have it on the correct Video In channel.

8 Turn on the TV power. Set the TV to the correct **Video In** channel. This is not channel 3 or 4. See your TV manual. Your TV remote may have a button or switch that selects the Video In channel. Or, go to your lowest TV channel and change channels down until you see the DVD background picture or Initial Setup screen on the TV. The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.

Helpful Hints

- Set Digital output accordingly. See page 61. If the Digital output setting does not match your Stereo's capabilities, the Stereo may produce a strong, distorted sound or no sound at all.
- Your Stereo must support MPEG2, Dolby Digital™ or Digital Theater System (DTS). Check the Stereo's manual.
- To use S-Video or Component Video instead, see pages 12-13. You only need one video connection. Choose the correct Video In channel at the TV.

Connecting to Other Equipment Dubbing Videotape to a DVD+R/DVD+RW





You can connect a Video Cassette Recorder (VCR), Camcorder, or DVD Player to the Recorder's CAM or EXT IN jacks.

A sample connection with a Camcorder is shown here, using the CAM 1 AUDIO/VIDEO IN jacks on the front of the Recorder. These jacks are the most easily accessible. Other equipment will connect similarly, but this is a common connection possibility.

You will need this connection to copy videotapes onto a DVD+R or DVD+RW.

There are Component Video, S-Video, Digital Video, and Audio jacks on the front and rear of the Recorder. If your other equipment has these jacks, use them instead. Use the IN jacks on the rear of the Recorder for permanent connections. That will hide the cables from view.

- 1** **Connect the DVD Recorder directly to your TV.** Choose a connection from pages 10-16.
- 2** **To access the AUDIO/VIDEO IN jacks on the front of the Recorder, flip down the door that covers the jacks.**
- 3** **Connect a video cable to the VIDEO OUT jack of your Camcorder and to the yellow CAM 1 VIDEO IN jack on the front of the DVD Recorder.** Use an RCA-style video cable, which is usually marked with yellow. (One video cable is supplied with the Recorder.)
- 4** **Connect audio cables to the AUDIO OUT jacks of your Camcorder and to the red and white CAM 1 AUDIO IN jacks on the front of the DVD Recorder.** Most audio cables are color coded. Match the cable colors to the jack colors. (Two sets of audio cables are supplied with the DVD Recorder.)
- 5** **When all connections are complete, connect all the equipment to power. Turn on all the equipment.** Press **STANDBY-ON**  on the front of the DVD Recorder to turn it on.
- 6** **Set your TV to the correct Video In channel.** This will be channel 3 or 4 or a specific Video In channel, depending on your connection between the Recorder and the TV. Refer to the connection details on pages 9-16. Or, simply go to channel 5 on your TV, then change channels down until you see the DVD Recorder's logo on the TV screen. *The Initial Setup screen will appear the first time you turn on the Recorder. Go to page 18 to continue.*
- 7** **To watch or record the material playing on the other equipment, press MONITOR to put the Recorder in Monitor mode. Press CH+▲ or CH-▼ to select CAM1 at the Recorder.** This is located after your highest TV channel and before your lowest TV channel. Choose CAM1 if you used the connection shown on this page (with the jacks on the front of the Recorder). If you use the IN EXT 1 or IN EXT 2 jacks on the rear of the Recorder instead, choose channel EXT 1 or EXT 2. Choose the channel that matches the jacks to which you connected the other equipment. **Start playing the material by pressing PLAY on the other equipment. Press Record  on the front of the DVD Recorder to start recording. See page 21.**

Helpful Hints

- Use the DV (Digital Video) IN jack to connect the Recorder to a Personal Computer that has a Digital Video output. The PC must have an IEEE 1394 Firewire connector. Limited PC applications may be supported. You also can use this jack to connect the Recorder to Digital Video or Hi-8 camcorders. If you use the DV IN jack, choose CAM 2 at the Recorder in Monitor mode to see the material playing on other equipment.
- Most prerecorded videotapes and DVDs are copy protected. If you try to copy them, the Recorder display may show "COPY PROTECT."
- If the Recorder's display shows "NO SIGNAL," adjust the tracking or play the tape on the VCR/Camcorder. See your VCR/Camcorder manual.
- Do not connect a Progressive Scan video source (such as a DVD Player) to the IN EXT 1 COMPONENT VIDEO jacks. The Recorder cannot receive Progressive Scan video.

18 Initial Setup


Initial Setup screens will appear the very first time you turn on the Recorder. These on-screen messages and menus will help you set up Recorder features quickly, including TV channels and language options.

During Initial Setup, “IS TV ON? CO3” will appear on the Recorder’s display panel. The Initial Setup information shows on your TV.

“IS TV ON? CO3” indicates you should turn on your television and set it to channel 3 or the correct Video In channel. Even though your TV may be on, you must set it to the correct Video In channel to see the Initial Setup messages. See pages 9-14 to determine the correct Video In channel for your connection. Or, check your TV owner’s manual for details.

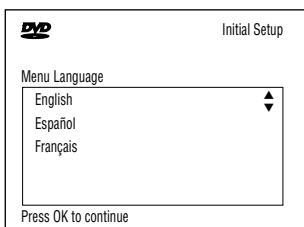
Follow the steps below to set up the Recorder. **You cannot turn off the Recorder until you finish the Initial Setup. The only way to quit the Initial Setup is to disconnect the power cord. If you quit, the Initial Setup screens will appear again the next time you turn on the Recorder. The screens will not go away until you finish the Initial Setup. Also, you cannot open the Disc tray while “IS TV ON? CO3” appears. (“INSTALL RECORDER FIRST” will show on the display panel.)**

If the setup screens do not appear, your Recorder has been set up previously. You can change setup items later. See the pages listed at each step below for each feature.

1 Press STANDBY  to turn on the Recorder.

2 The Menu Language screen will appear first. Press CH+▲ or CH-▼ to choose English, Espanol, or Francais, then press the OK button.

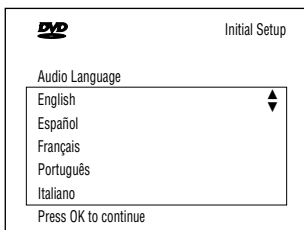
The DVD Recorder’s menus will be in the language you selected. To change the Recorder’s Menu Language later, see page 63.



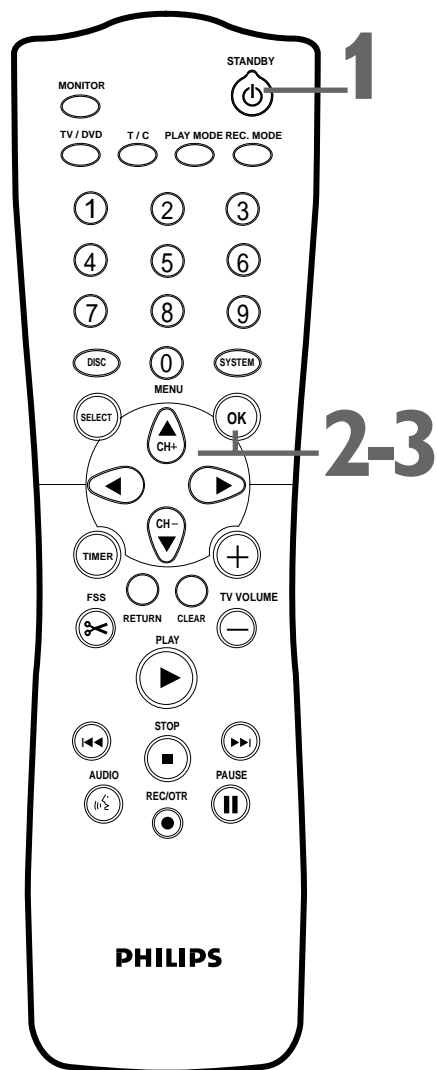
3 The Audio Language menu appears next. Press CH+▲ or CH-▼ to choose the language you prefer, then press OK.

The Recorder will play Discs in this language if it is on the Disc. The DVD Disc menu will appear in the same language if available. Some Discs require you to choose the audio language or the Disc Menu language from the Disc menu. The Disc preferences or defaults may override your selection in the Recorder’s Audio Language menu.

To change the Audio Language later (as Playback Audio), see pages 35 and 63.



Instructions continue on the next page.



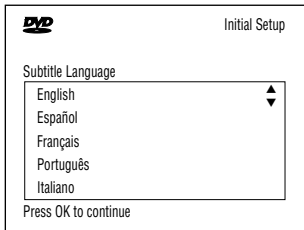
Helpful Hint

- The Recorder’s features will scroll across the display panel when you first connect the power cord. This is a demonstration that cannot be cancelled. It will not appear anymore after you set up the Recorder.

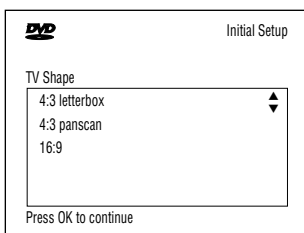
Continued from previous page

4 The Subtitle Language menu appears next. **Press CH+▲ or CH-▼ to choose the language you prefer for subtitles, then press OK.**

The Recorder will show subtitles in this language if they are available. If the language is not available, either there will be no subtitles or subtitles will be in the default language of the Disc. Some DVDs require you to choose a subtitle language from the Disc menu. Disc preferences or defaults may override your selection in the Recorder's Subtitle Language menu.
To change the Subtitle Language later, see pages 35 and 63.

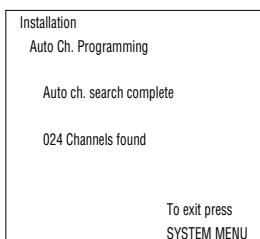


5 The TV Shape menu appears next. **Press CH+▲ or CH-▼ to choose the preferred TV Shape, then press OK.**
To change the TV Shape later or for details on TV Shapes, see page 60.

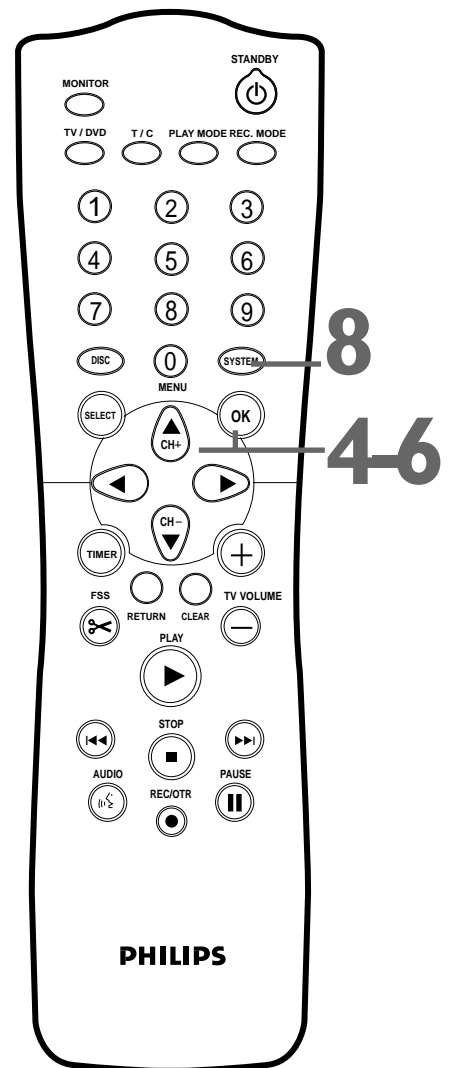


6 "If you have connected the antenna - press OK" appears next. **If you have connected an Antenna or Cable TV signal to the Recorder's ANTENNA jack, press OK.**
If you have not connected the Antenna or Cable TV signal, take a moment now to do so. After the Antenna/Cable TV signal is connected, press OK. See pages 10-16.
To reset TV channels later, or to add/delete new channel choices later, see page 26.

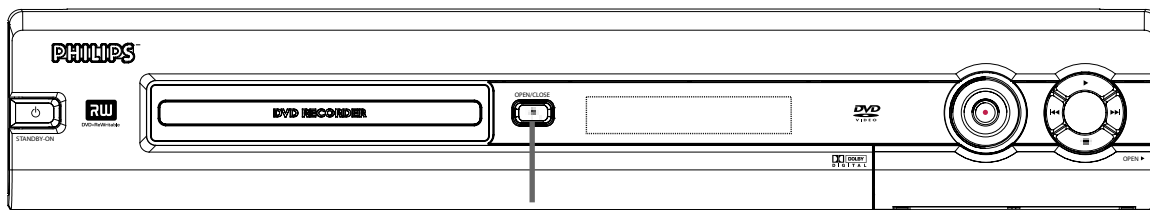
7 "Searching for TV channels" will appear, along with a scale showing channels are being memorized. The number of channels found will show on the screen as the searching progresses. This will take a few minutes, depending on the number of channels available in your area.
When the channel search finishes, "Auto ch. search complete" will appear, along with the total number of channels found.



8 **Press SYSTEM MENU.** The Recorder automatically turns off, then turns on again. You will see a blue Philips DVD background screen and some Information Boxes. (See page 33.)
The Recorder is ready for use!



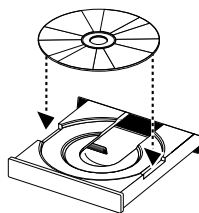
20 Quick Disc Playback



2-3

1 Press **STANDBY** to turn on the DVD Recorder. Turn on your TV. Set it to the correct Video In channel. See pages 9-14. You should see the blue Philips DVD background picture on the TV screen (if no Disc is in the Recorder).

2 Press **OPEN/CLOSE** on the front of the Recorder to open the disc tray. Load your Disc in the tray, with the label facing up and the shiny side facing down. If the Disc (DVD) is two-sided, make sure the label of the side you want to play is facing up.



3 Press **OPEN/CLOSE** again to close the tray.

4 Play may start automatically. If not:

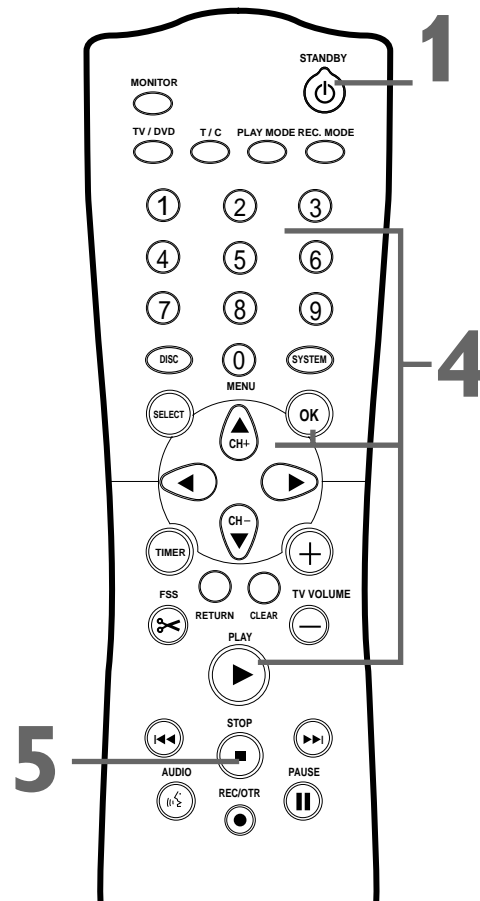
- If you are playing a DVD, a Disc menu may appear. If the Title or Chapter selections are numbered, press a Number button to select an item. Or, press CH+▲, CH-▼, ◀, or ▶ to select an item, then press OK. Continue until you start playing the Disc. Or, follow the instructions in the DVD Disc menu.
- If you are playing an Audio CD, press **PLAY** to start playback.
- If you are playing a DVD+RW/DVD+R, the Index Picture Screen will appear. See page 32. Press CH+▲ or CH-▼ to select the Title you want to play, then press OK. If the Disc is blank, the display will show "EMPTY DISC."

5 To stop play at any time, press **STOP** .

If Auto resume is On, DVD play will resume at the same point the next time you play the DVD. To play the DVD from its beginning, restart play from the DVD's Disc menu.

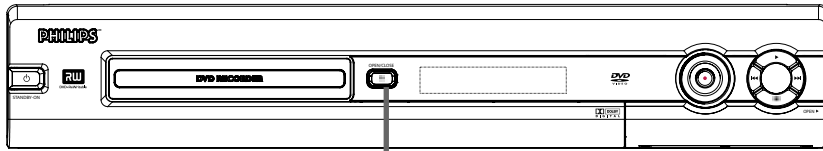
If Auto resume is Off, Resume will appear in the top left corner when you play the DVD later. While Resume appears, press **PLAY** to resume play from the point at which you last stopped it. Otherwise, play will start at the beginning of the DVD or Title. Resume will disappear after about 15 seconds.

Auto resume is On when you purchase the Recorder. However, you can turn it On or Off. See page 53.



Helpful Hints

- If the Disc is Locked by Access Control, you must enter the four-digit code or unlock the Disc. See pages 54-58.
- DVDs have a region code. Your Recorder will not play Discs that have a region code other than 1 (one). See page seven.
- Auto resume does not affect Audio CDs. If you restart play of an Audio CD, play starts at the beginning of the Audio CD.

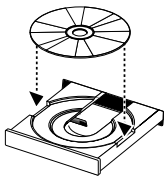


1-2

The Recorder can record TV programming onto a DVD+RW or DVD+R. Before you begin, set up TV channels. See pages 18-19 and 26. Use an unprotected, unfinalized, recordable DVD+RW/DVD+R. Recording options are on pages 41-52.

1 Press OPEN/CLOSE ▲ on the front of the Recorder to open the disc tray. Or, press and hold **STOP ■** on the remote control for about three seconds to open or close the Disc tray.

2 Insert a recordable DVD+RW/DVD+R, with the label facing up. **Press OPEN/CLOSE ▲** to close the disc tray. The Index Picture Screen will appear. See page 32. If the Disc is empty and has no recordings, "EMPTY DISC" will appear on the display panel.



3 Press CH-▼ to select an empty Title box on a DVD+RW. To avoid overwriting previous recordings on a DVD+RW, choose the last Empty Title box. On a DVD+R, the Recorder automatically starts recording at the end of the Disc, so you do not need to select an Empty Title box. You cannot overwrite recordings on a DVD+R.

4 Press MONITOR to see TV channels through the DVD Recorder.

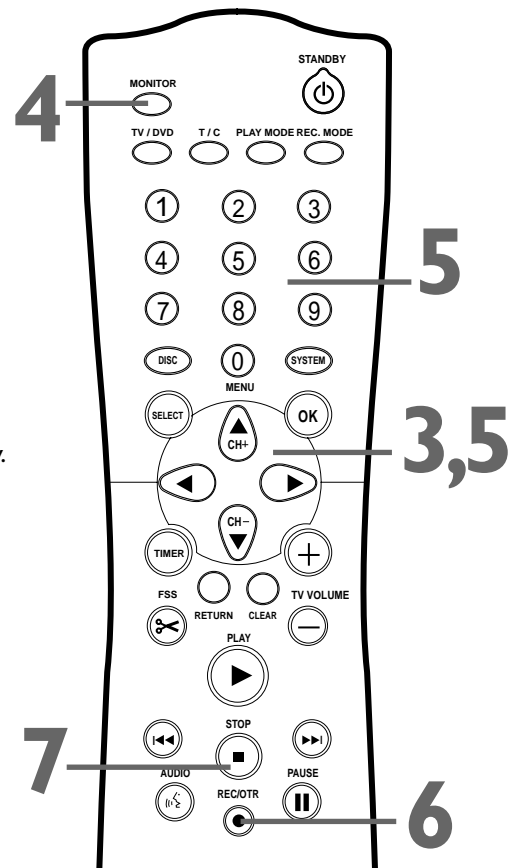
5 Press CH+▲, CH-▼, or the Number buttons to select the channel you wish to record.

To record material playing on equipment you connected to the Recorder, select EXT1, EXT2, CAM1, or CAM2. Choose the EXT (External) or CAM (Camera) channel that matches the jack to which you connected the other equipment. See page 17.

If you are using a Cable Box/Satellite Receiver, set the DVD Recorder to channel 3 or 4 (or the EXT or CAM channel). Choose the output channel of your Cable Box/Satellite Receiver or the jacks to which you connected the Cable Box/Satellite Receiver. Then, change TV channels at the Cable Box/Satellite Receiver. See page 11.

6 Press REC/OTR ● to record the selected channel. Recording will begin after a few seconds. (The Disc has to prepare for recording.) A red light will encircle the Record ● button on the front of the Recorder during recording. To pause recording, press **PAUSE ■■** once on the remote. The red light around the Record ● button will flash when recording is paused.

7 Press STOP ■ to stop recording. The red light around the Record ● button will flash. The Index Picture Screen will reappear after a few seconds. On a brief recording on a new DVD+RW, formatting the Disc will take a minute. If you plan to play a DVD+R on another DVD Player, finalize the Disc. Follow the steps on page 52. You cannot record or edit a DVD+R after you finalize it. To edit your recordings, see page 51. However, editing changes may not be accessible when you play the Disc on other DVD Players.



Helpful Hints

- You cannot record only Audio (sound) to a DVD+RW/DVD+R. You must record both audio and video (sound and picture).
- To erase a recording, see "Erase this title" details on page 47.
- You cannot duplicate copyrighted DVDs, videotapes, or TV broadcasts using the Recorder. "COPY PROTECT" may appear on the display panel if you attempt this.

22 Remote Control

MONITOR Button

Press to choose Disc mode or Monitor mode. In Disc mode, use the Index Picture Screen or view Disc playback. In Monitor mode, watch TV channels through the DVD Recorder or make a recording. See page 21.

TV/DVD Button

Press to switch between TV and DVD positions. The selected position will appear briefly on the display panel. Use TV position to watch one TV channel while recording another. See page 46. Use DVD position for other features.

DISC MENU Button

Press during play to access a DVD's Disc menu. See page 34. Press to access the Index Picture Screen of a DVD+RW/DVD+R. See page 32.

SELECT Button

Press to select an AM or PM Start or End time for a timer recording. See page 42.

RETURN Button

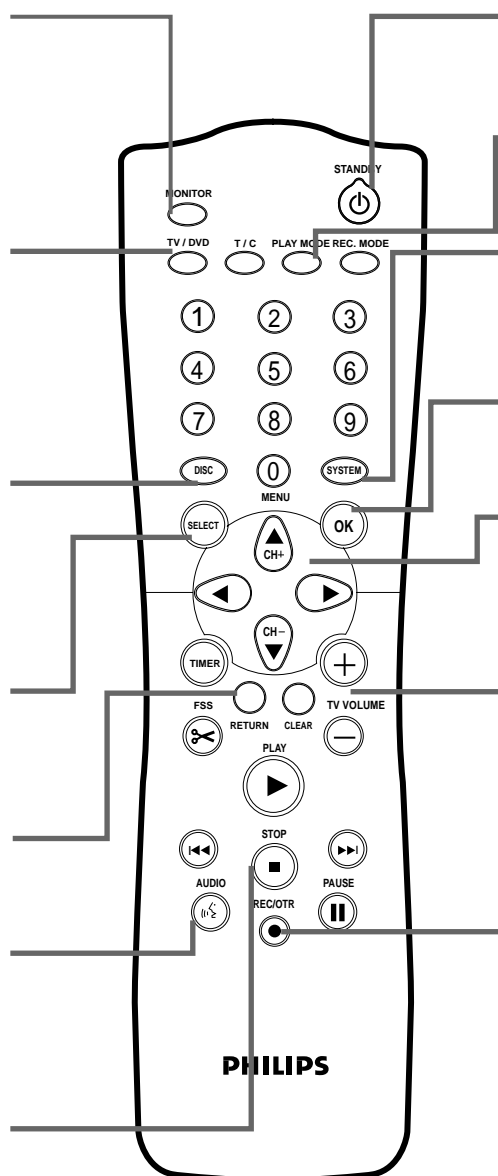
Press to go to a previous menu on a Video CD or some DVDs.

AUDIO Button

Press to select a different audio language during DVD play. Multiple languages must be available on the DVD. See page 35.

STOP ■ Button

Press to stop Disc play or recording. Press and hold the STOP ■ button for three seconds to open or close the Recorder's disc tray.



STANDBY Button

Press to turn on or off the power of the DVD Recorder.

PLAY MODE Button

Press during Disc play to choose a Repeat, Shuffle, or Scan mode.

SYSTEM MENU Button

Press to access or remove the Menu Bars of the DVD Recorder. See page 30.

OK Button

Press to acknowledge or approve a menu selection.

CH-/▼, CH+/▲, ◀, ▶ Buttons

Press to select menu items. Press CH+▲ and CH-▼ to change TV channels at the Recorder in Monitor mode.

TV VOLUME +/- Buttons

Press to adjust the volume of some Philips TVs. You do not have to hold the DVD/TV button on the side of the remote for this feature. The TV VOLUME +/- buttons do not work with all TVs.

REC/OTR Button

(Record/One-Touch Recording) Press to record the current TV channel in Monitor mode. See page 21. Or, press to record material playing on equipment connected to the Recorder (after choosing the correct EXT or CAM channel). See page 17. Press repeatedly to set up a One-Touch Recording. See page 41.

T/C Button (Title/Chapter)

Press to select "T" (Title/Track) or "C" (Chapter) in the Menu Bar. Then press CH+▲ or CH-▼ to select the Title/Track/Chapter you want to play. This button has no effect during Monitor mode.

TIMER Button

Press to access or remove the Timer Recording menu. See pages 42-44.

FSS Button (Favorite Scene Selection)

Press to display or remove the Favorite Scene Selection menu during playback of a DVD+R or DVD+RW. See page 51.

Previous ◀◀ Button

Press to return to the beginning of the current Chapter/Track. Press repeatedly to return to previous Chapters/Tracks. See page 34. Press and hold for two seconds to search backward during play. See page 38.

REC MODE Button

Press repeatedly to select a recording speed: M1, M2x, M4, or M6. This determines the quality of the recording and the amount/length of time you can record on a Disc. See page 49.

Number Buttons

Press to select numbered items in a menu. See page 20. Press during play to select a Chapter (within the current Title) or Track for play. See page 34. Press to select a TV channel while in Monitor mode.

CLEAR Button

Press to delete the last entry of information into a menu. Press to clear a timer recording. See page 44.

PLAY ▶ Button

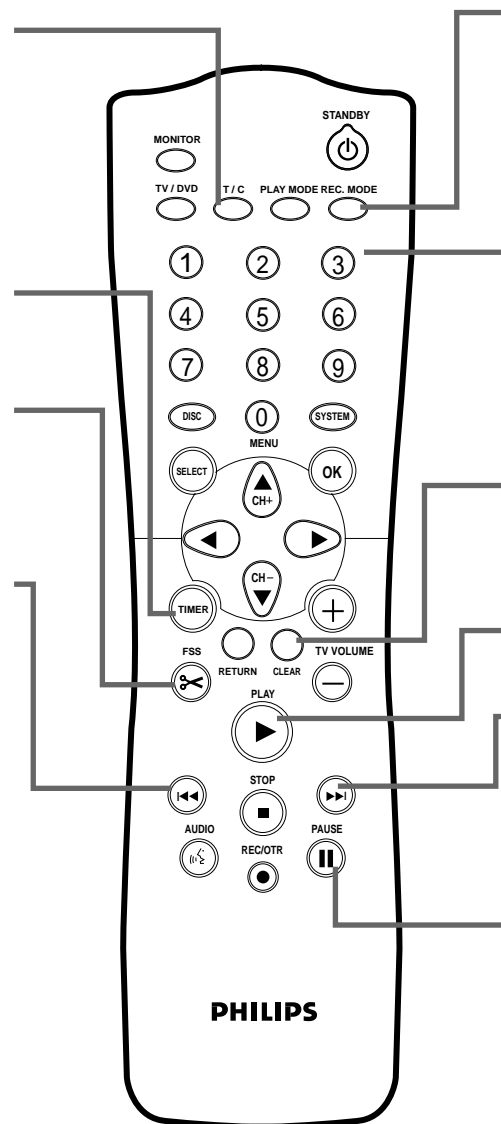
Press to play a Disc.

Next ▶▶ Button


Press to skip to the next Chapter or Track during play. See page 34. Press and hold for two seconds to search forward during play. See page 38.

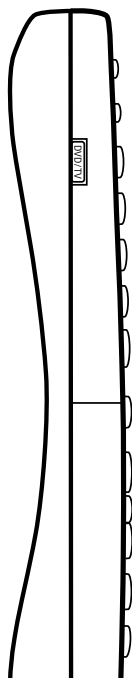
PAUSE || Button

Press once to pause play. Press repeatedly to advance a paused picture one frame at a time (frame-by-frame playback). See page 37.

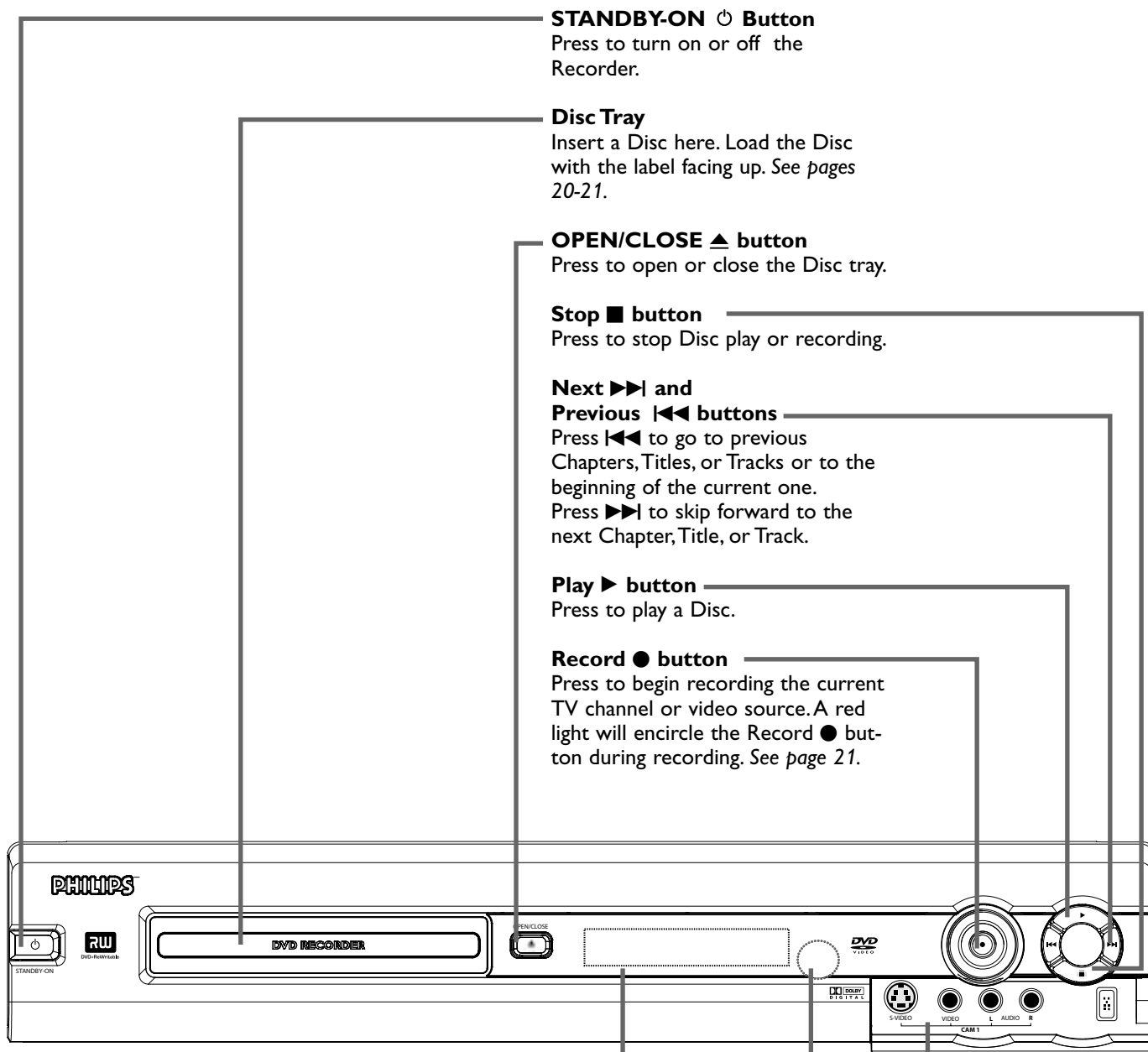


The following buttons will work with some Philips TVs when you hold down the DVD/TV button on the side of the remote. Hold down the DVD/TV button at the same time you press these buttons. Otherwise, these buttons will change channels or power at the Recorder.

- **CH+▲ or CH-▼**
Press to change TV channels at the TV.
- **Number buttons**
Press to choose a TV channel at the TV.
- **STANDBY** 
Press to turn on or off the TV power.



24 Front Panel



Display Panel

Information about the current status of the Recorder or Discs appears here. This may include the current time, the elapsed playing time of a Disc, or the current TV channel.

Remote sensor

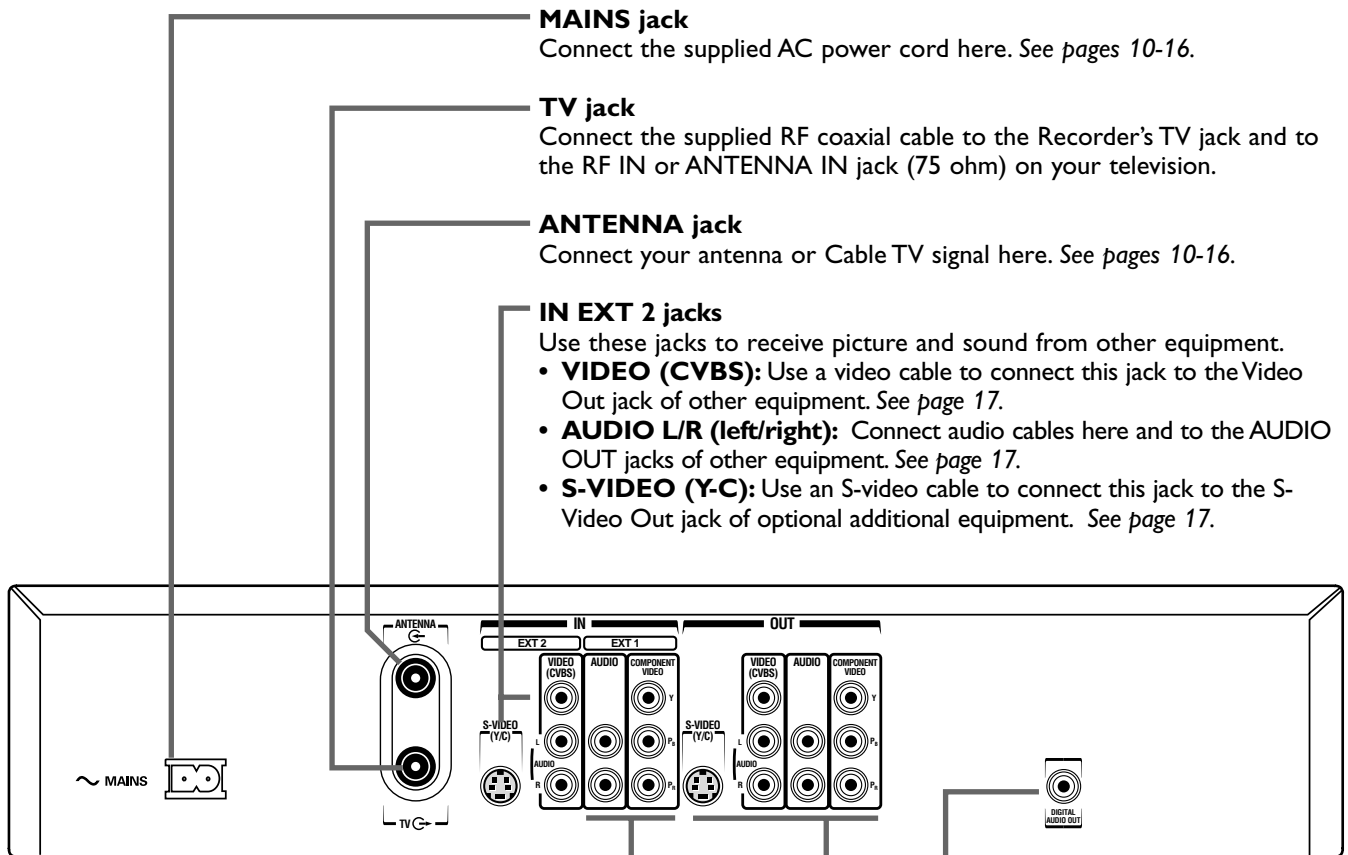
The sensor receives signals from the remote. Point the remote here, not at your TV, when using the remote control to operate the DVD Recorder.

CAM (Camera) jacks

DV (digital video), S-VIDEO, VIDEO, and AUDIO In

To access these jacks, flip down the door as indicated by the OPEN ► label on the door. Use these jacks when connecting a Camcorder or other equipment to the DVD Recorder. See page 17. When recording material that is playing on the other equipment, choose the CAM channel that corresponds to the jack to which the equipment is connected.

If your Personal Computer has an IEEE 1394 Firewire connector, you may connect it to the Recorder's DV IN jack. Limited applications are available.





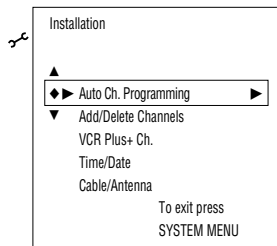
Helpful Hints

- Use the same EXT (external) number for each pair of audio and video connections. For example, if you use IN EXT 2 S-VIDEO (Y/C), use the IN EXT 2 AUDIO L/R jacks.
- Do not touch the inner pins of the jacks. Electrostatic discharge may damage the unit permanently.
- You only need one audio and one video connection to a TV. You might not use all the jacks.

26 TV Channel Programming

Although the DVD Recorder selects available TV channels during Initial Setup, you may want to repeat the process later if more channels become available in your area. This will erase and replace all previously stored channels. To update the available channels, follow these steps.

- 1** Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select  in the next menu, then press **▶** to enter the Installation menu.

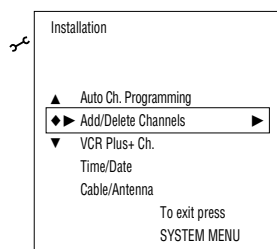


- 3** Auto Ch. Programming will be selected. Press **OK**. "Searching for TV channels" will appear, along with a scale showing channels that are being memorized. The number of channels found will show on the screen as the searching progresses. This will take a few minutes, depending on the number of channels available.

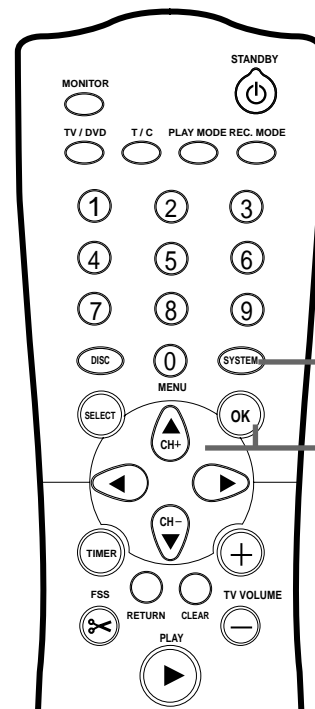
- 4** When the channel search finishes, "Auto ch. search complete" will appear, along with the total number of channels found.

Press **SYSTEM MENU**. The Installation menu will reappear. If you are satisfied with the channels found, press **SYSTEM MENU** repeatedly to remove the menu. You are finished.

To add or delete additional channels, press **CH-▼** to select **Add/Delete Channels**, then go to step 5.





- 5** Press **▶**. A channel list will appear. Beside each channel number, you will see "Delete" or "Add."
- 6** Press **CH+▲** or **CH-▼** to select the channel you want to add or delete, then press **◀** or **▶** to choose **Add** or **Delete** for that channel. Press **OK** to store your choice. "Stored" will appear briefly in the lower left corner of the menu. Repeat step 6 as often as necessary to add or delete all the channels you want.
- 7** Press **SYSTEM MENU** repeatedly to remove all the menus when you are finished.

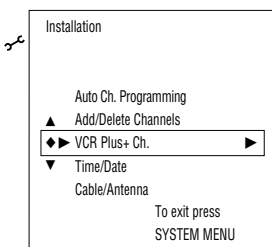


Helpful Hints

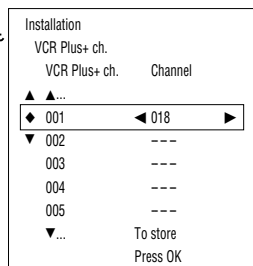
- Access added channels by pressing **CH+▲** or **CH-▼**. Deleted channels will be skipped. Delete channels you rarely watch. You still can select deleted channels with the Number buttons.
- If new channels become available, or if you receive a channel the Recorder did not set, add the channel.
- The Recorder detects whether you connected an Antenna or Cable TV signal. If you are not receiving the correct channels, reset your channels. Follow steps 1-2 above. Press **CH-▼** to choose Cable/Antenna, then press **OK**. Press **▶** or **◀** to choose Cable, Anten. (antenna), or Auto (for the Recorder to detect automatically). Press **OK**. "Stored" will appear briefly in the lower left corner of the menu. Press **SYSTEM MENU**. Repeat the steps on this page to reset the TV channels.

If you intend to use the VCR Plus+ programming system, program the DVD Recorder with your local channel information. This will only take a few minutes. Since the channel numbers of the stations you receive may not be the same as the station numbers, and since channel numbers differ from area to area, you must set up channels in order for the system to work efficiently. Before you begin, make sure you have 1) a cable TV channel list, if applicable (you can request one from your cable TV company), and 2) a chart that lists VCR Plus+ channel numbers, which you can find in your TV guide or the TV listings of your local newspaper.

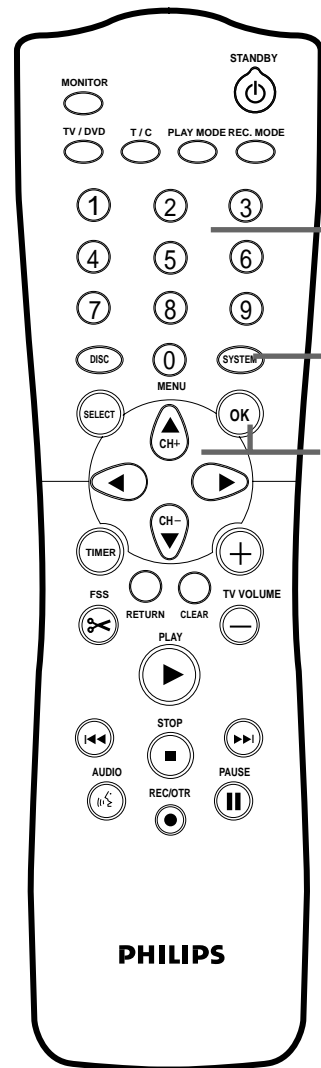
- 1 Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select  at the end of the next menu screen, then press **▶** to enter the Installation menu.
- 3 Press **CH+▲** or **CH-▼** to select **VCR Plus+ Ch. (channel)**, then press **▶**.



- 4 Press **CH+▲** or **CH-▼** to select a **VCR Plus+ Ch. number**, then press the **Number buttons** or **◀** or **▶** to enter the corresponding **Channel number from your TV guide list**. If you use the **Number buttons**, enter the channel number as a three-digit number. For example, for channel 18, press 0,1,8. Refer to the list from your local newspaper or TV guide for the VCR Plus+ channels and corresponding TV channel numbers for your area. These are the numbers you will enter as the Channel number as you complete the chart on the screen.



- 5 Press **OK** to store the **Channel number**. "Stored" will appear briefly in the lower left corner of the menu. Repeat steps 4-5 as often as necessary to complete the chart.
- 6 When you are finished, press **SYSTEM MENU** repeatedly to remove all the menus.



Helpful Hint



- Only memorized channels will appear if you use **▶** and **◀** to enter channel numbers at step 4. Use the **Number buttons** to enter any channel number.

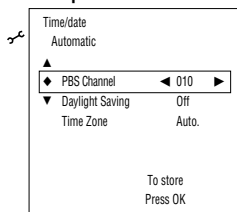
28 Clock Setting

Time/Date Automatic

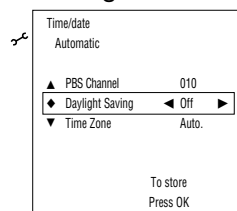
The Recorder can set the time and date automatically by referring to a PBS station. If the Recorder chooses an incorrect PBS channel or sets the time/date incorrectly, set the clock manually. See page 29.

Before you begin, make sure TV channels are set. See page 26.

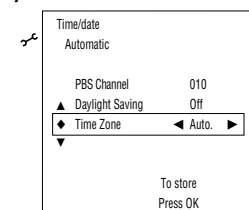
- 1** Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select  at the end of the next menu, then press **▶** to enter the Installation menu.
- 3** Press **CH-▼** repeatedly to select **Time/Date**, then press **▶**.
- 4** Automatic will be selected. Press **▶**.
- 5** With **PBS Channel** selected, press **◀** or **▶** to choose the channel number of your PBS station, then press **OK**. The menu will pause while storing the setting.
If you do not know your PBS channel number, choose Auto. The Recorder will choose a PBS station for you and set the time.
If you want to set the clock manually, choose Off. The Recorder will not update the time automatically according to a PBS station.




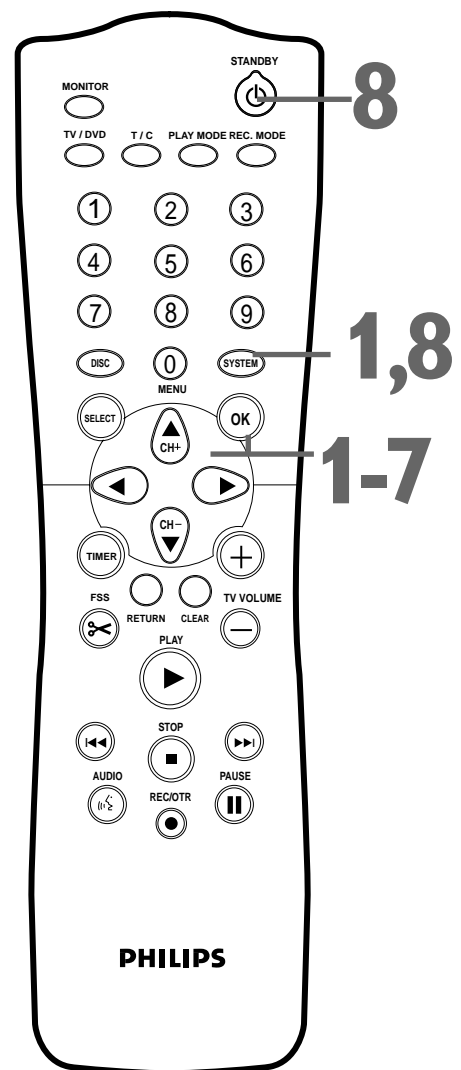
- 6** Press **CH-▼** to choose **Daylight Saving**. Press **◀** or **▶** to choose **On**, **Off**, or **Auto**, then press **OK**. The menu will pause while storing the setting. Choose Auto if you want the clock set according to the PBS station's Daylight Savings Time schedule.



- 7** Press **CH-▼** to choose **Time Zone**. Press **◀** or **▶** repeatedly to choose your time zone, then press **OK**. The menu will pause while storing the setting.
If you want the Recorder to use the time zone from which your PBS station broadcasts, choose Auto. If your PBS station broadcasts from a different time zone than the one in which you live, be sure to select your time zone.



- 8** Press **SYSTEM MENU** repeatedly to remove the menus. Press **STANDBY**  to turn off the Recorder. In a few minutes, the time will appear on the display panel on the front of the Recorder.
If the Recorder cannot find the time, you may see an error message when you turn on the Recorder. Check the PBS channel and try again. Or, set the clock manually. See page 29.





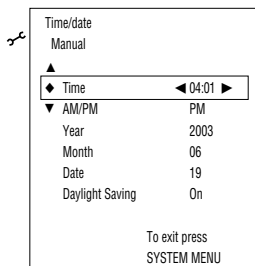
Helpful Hints

- The Recorder may set the clock when you complete Initial Setup. If the correct time appears on the display, you do not need to set the clock.
- The factory default setting of Daylight Saving is On.
- The Recorder can use the PBS channel to set the clock only if the PBS channel is a memorized channel. To set up channels, see page 26.

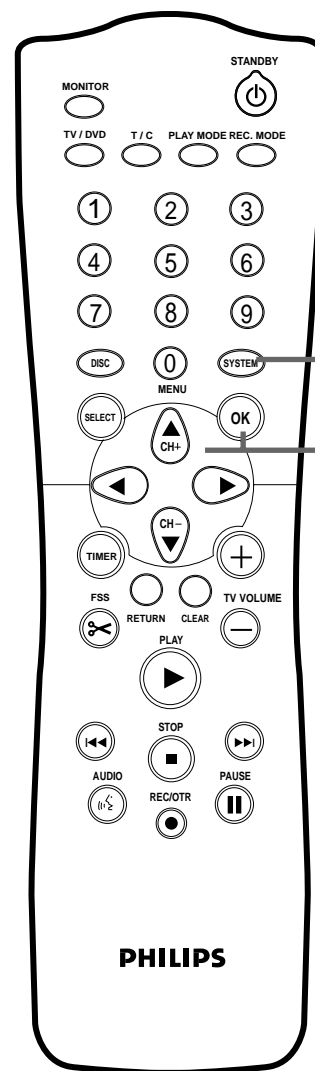
Time/Date Manual

If the Recorder does not set the time and date correctly using the Time/Date Automatic feature, set the clock manually by following the steps below. Manual clock setting overrides Automatic clock setting.

- 1 Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select  at the end of the next menu, then press **▶** to enter the Installation menu.
- 3 Press **CH-▼** repeatedly to select **Time/Date**, then press **▶**.
- 4 Press **CH-▼** to choose **Manual**, then press **▶**.



- 5 Time will be highlighted. Press **◀** or **▶** to choose the correct time in hours and minutes, then press **OK**. Or, press the Number buttons to quickly enter the time in hours and minutes, then press **OK**. The menu will pause while storing the setting.
- 6 Press **CH-▼** to choose **AM/PM**, then press **◀** or **▶** to choose **AM** or **PM**. Press **OK**. The menu will pause while storing the setting.
- 7 Press **CH-▼** to choose **Year**, then press **◀** or **▶** to choose the current year. Press **OK**. The menu will pause while storing the setting.
- 8 Press **CH-▼** to choose **Month**, then press **◀** or **▶** to choose the current month. Press **OK**. The menu will pause while storing the setting.
- 9 Press **CH-▼** to choose **Date**, then press **◀** or **▶** to choose the current date. Press **OK**. The menu will pause while storing the setting.
- 10 Press **CH-▼** to choose **Daylight Saving**, then press **◀** or **▶** to choose **On** or **Off**. Press **OK**. The menu will pause while storing the setting.
- 11 Press **SYSTEM MENU** repeatedly to remove all menus.



Helpful Hints

- In order for the clock to remain set as you specified manually, you may need to set Daylight Saving to Off.
- If you set up channels again as described on page 26, you may need to reset your clock.
- If you change any item manually (Time, AM/PM, Year, Month, Date, Daylight Saving), PBS Channel will change to Off automatically. See page 28.

30 Menu Bars

You can use the Menu Bars to operate some features. You cannot access the Menu Bars during recording. When a Menu Bar is on the screen, press the CH-▼, CH+▲, ◀, and ▶ buttons on the remote to select or change an item.

Menu Bar 1

***Press SYSTEM MENU once to access Menu Bar 1. The following items are in Menu Bar 1.** Depending on the available Disc features, you may not be able to access each item at all times. Only available features can be selected.



User Preference Settings Set your preferences for audio and video quality, depending on the equipment you connected to the DVD Recorder. Also set up Languages, Access Control, Record Settings, Remote Control settings, Installation features, and other DVD Recorder features as detailed throughout this manual.



Title/Track Select to choose an available Title or Track for playback. Use the Number buttons or the CH-▼/CH+▲ buttons to select the Title you want. Play will start automatically.



Chapter Select to choose an available Chapter for playback. Use the Number buttons or the CH-▼/CH+▲ buttons to select the Chapter you want. Play will start automatically.



Audio Language If the current DVD has multiple audio soundtracks, choose one here. For example, some DVDs let you play the movie in other languages or hear a director's commentary during playback. Check the Disc case for details. See *page 35*.



Subtitle Language If the current Disc has subtitles, select a language here. See *page 35*.



Angle Select to choose a different camera angle, if available, during DVD play. See *page 36*.



Zoom Select to enlarge the picture by 1.33, 2, or 4 times the normal size during playback. See *page 36*.

Menu Bar 2

***While in Menu Bar 1, press ▶ repeatedly to move to Menu Bar 2. The following items may be available in Menu Bar 2.**



Sound Mode Select to choose a sound mode: Stereo (st) or Dolby Surround compatible (sur). See *page 37*.



Frame-by-frame playback Select for forward or reverse frame-by-frame playback. Press CH-▼, then press ◀ or ▶ to move the picture backward or forward one frame at a time. See *page 37*.



Slow motion Select to slow the speed of DVD, DVD+R, or DVD+RW playback. See *page 38*.




Fast motion Select to play a DVD, DVD+R, or DVD+RW forward or backward at four, eight, or 32 times the normal play speed. Press CH-▼, then press ◀ or ▶ to choose a backward (-) or forward speed.





Time Search Select to enter a specific time within the current Title or Track at which you want play to begin. See *page 39*.

On-screen Symbols


The following symbols will appear briefly on the TV screen when you activate some Disc features.


 **Scan** The first 10 seconds of each Chapter/Track will play. See page 39.


 **Repeat All** The entire Disc will play repeatedly. See page 40.


 **Repeat Title** The current Title will play repeatedly. See page 40.

 **Repeat Chapter** The current Chapter will play repeatedly. See page 40.


 **Repeat A** Point A for Repeat A-B playback has been entered. See page 40.


 **Repeat A-B** A segment of the Disc will play repeatedly. See page 40.

 **Angle** Multiple angles are available. See page 36.

 **Locked** The current Disc is Locked and cannot play. See pages 54-58.

 **Safe** The current Disc is authorized for playback. See pages 54-58.








 **"X"** The feature you just attempted is not available on the current Disc or at the current time.

 **Shuffle** The Tracks or Chapters will play in random order. To start shuffled play, press PLAY MODE repeatedly until "shuffle" appears on the TV screen.

Status Box

The Status Box shows the current status of the Recorder and information about the current Disc, including Disc type, total playing time, and elapsed playing time. Set Status box to On if you want to see the following icons briefly when you access a feature. See page 59.

Disc status icons

-  recording
-  stop
-  pause play
-  pause recording
-  fast forward (4, 8, or 32 times the regular speed, depending on Disc)
-  fast reverse (4, 8, or 32 times the regular speed, depending on Disc)
-  slow motion

Disc type icons

-  DVD+R
-  DVD+RW
-  DVD-Video
-  Super Video-CD
-  Video-CD
-  no Disc
-  Disc error

32 Index Picture Screen

The Index Picture Screen shows your recordings on a DVD+RW or DVD+R. It appears automatically when you insert a DVD+R or DVD+RW or when you stop playback or recording. The Disc must contain recordings.

An Index Picture represents each recording. Next to the Index Picture is the program name, length of recording, recording mode/speed, and date of recording. If the recording has no name, the recording source and time will appear instead (for example, the recorded TV channel and the time at which you started recording the channel).

Empty disc areas (erased Titles or blank space at the end of the Disc) also appear in the Index Picture Screen. "Empty title" and the amount of remaining recording time appear beside the empty Index Picture box.

The Index Picture Screen will dim after several minutes of no use. This prevents damage to your TV screen. To brighten the Index Picture Screen again, use the DVD Recorder or its remote control to access the regular features of the Index Picture Screen.

Titles

A maximum of three Index Pictures appears on the screen at once. Press CH+▲ or CH-▼ to move to other recordings.

Press STOP ■ to move directly to the first recording on the Disc.

Disc Bar

The Disc Bar appears at the right of the Index Picture Screen. This overviews all recordings on the Disc, as well as any empty spaces.

On the Disc Bar, the Disc Pointer indicates your current position on the Disc. You can press and hold the Next ►► button to scroll through the Disc Bar. Moving through the recordings by pressing CH+▲ or CH-▼ moves the Disc Pointer. On a DVD+RW, resume play or recording from this point by pressing OK for playback or REC/OTR ● for recording. Later recordings will be overwritten. On a DVD+R, resume play from the Disc Pointer location by pressing OK. However, on a DVD+R, recording begins at the last empty title space when you press REC/OTR ●.

Title Settings Menu

When you select an Index Picture, press ► to go to its Title Settings Menu. You can name, play, or erase the Title. See page 47.

Title description

Includes program name (or channel/source and time at which it was recorded), length of recording, the speed in which it was recorded, and the date of recording (if clock was set).

Cue

Go to the Disc Information Screen or to a Title on a previous screen. *Disc Information Screen details are on page 50.*

Index Picture

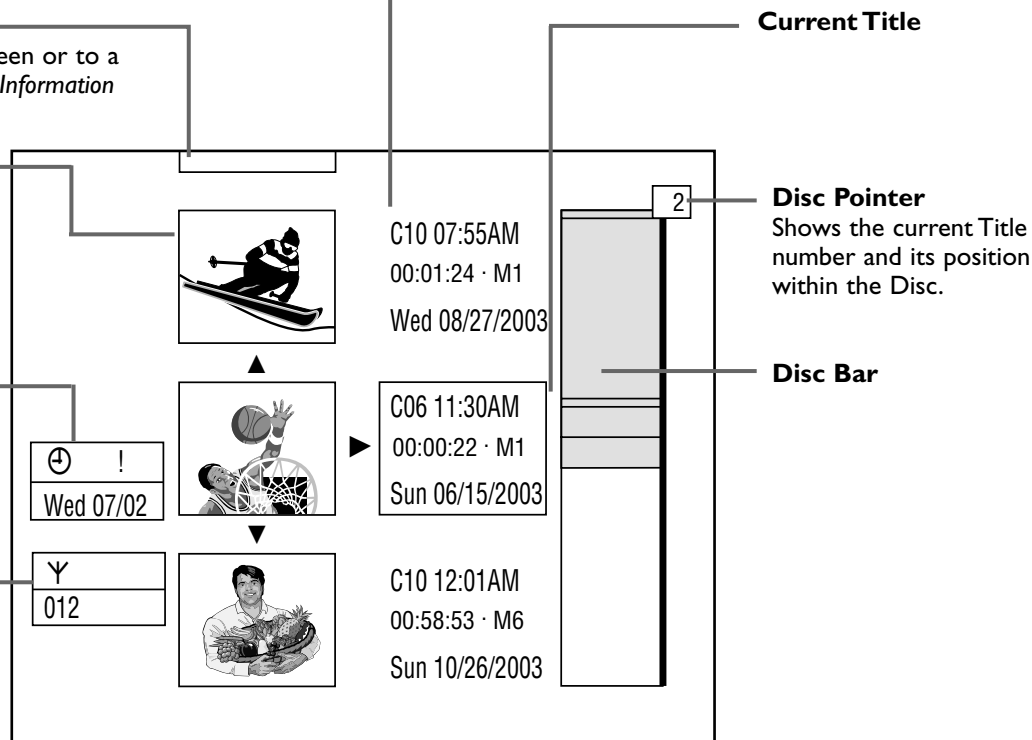
An image representing a recording. An empty box represents an area on the Disc that is empty and available for recording. *To personalize the Index Picture, see page 51.*

Timer Information Box

Displays the current time or the time/date of the next scheduled timer recording. See page 33.

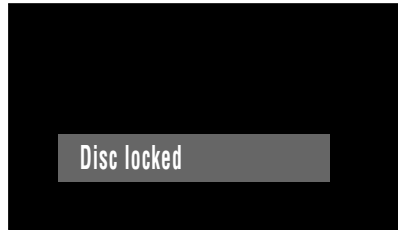
Tuner Information Box

Displays the current TV channel or video source (if additional equipment is connected to the Recorder). See page 33.



Warning box

Appears near the bottom of the screen when appropriate. *Examples and details are on page 45.*



Tuner Information box

Appears briefly on the left side of the TV screen in Monitor mode and identifies the current TV channel or Video source. For example, if EXT1 appears in the Tuner Information Box, you can view or record the material playing on the equipment connected to the IN EXT1 jacks on the rear of the Recorder. Make sure you have connected an Antenna or Cable TV signal to the ANTENNA jack on the Recorder. See pages 10-17. Press MONITOR to go into Monitor mode and view TV channels or play video from other equipment.

Current TV channel



No signal - Channel is not receivable or no equipment is connected to the designated jack.



Copy-protected signal



Timer Information box

Displays the start time and date of the next scheduled timer recording and appears in the Index Picture Screen. You cannot remove it from the Index Picture Screen. It appears briefly at the beginning of a timed One-Touch Recording. It does not appear during recording or Disc playback.

Timer recording due later today



Timer recording set for another day within the upcoming year



The time at which the current One-Touch Recording will end.



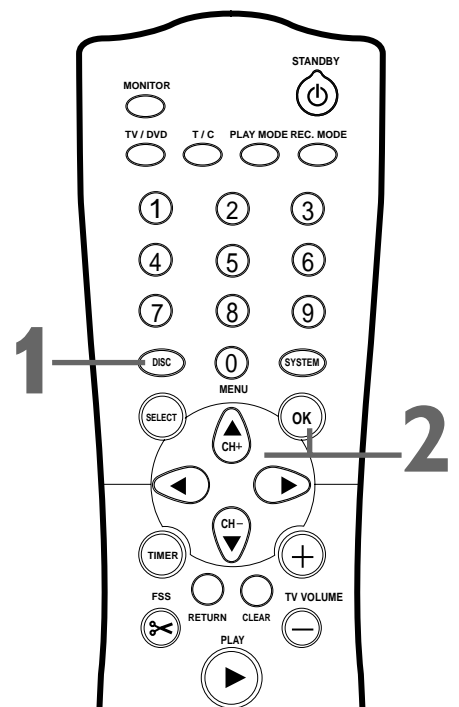
Current time; no timer recordings are scheduled.



34 Title/Disc Menu, Chapter/Track Selection

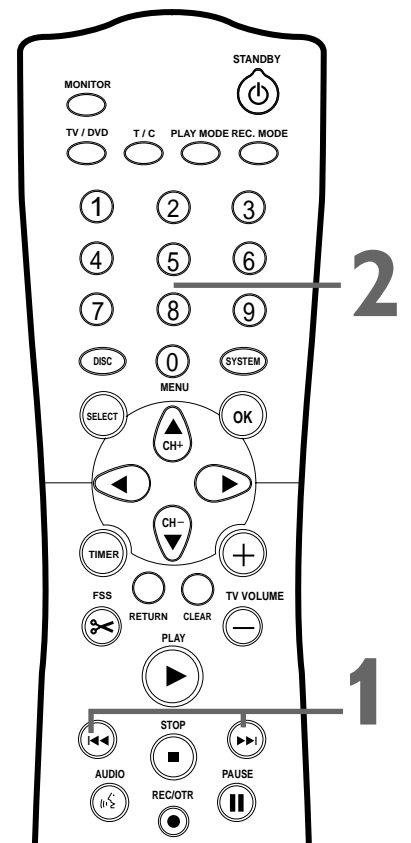
Title/Disc menus

- 1 Press DISC MENU during Disc play.**
For a DVD, if the current Title has a menu, the Title menu will appear on the screen. Otherwise, the Disc menu will appear. The menu will list features available on the current DVD and will vary for every DVD.
For a DVD+RW or DVD+R, the Index Picture Screen will appear.
See page 32.
- 2 Press CH+▲, CH-▼, ◀, and ▶ to select items in the menu or Index Picture Screen, then press OK.** Repeat this process until you set up all the features you want or until play begins.



Chapter/Track Selection

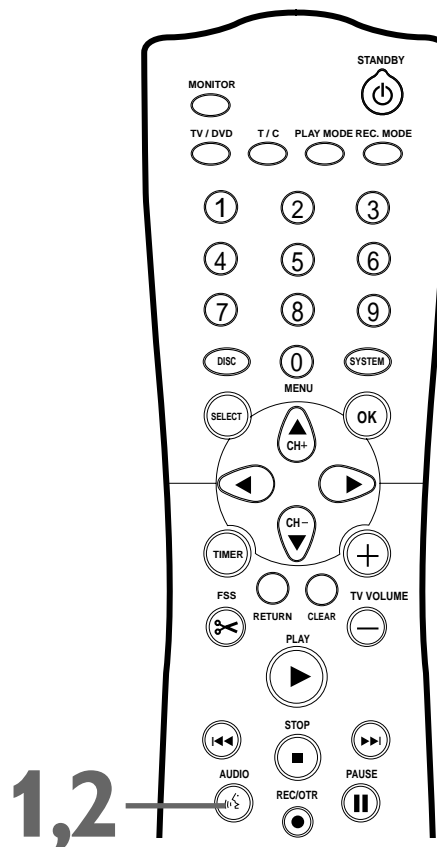
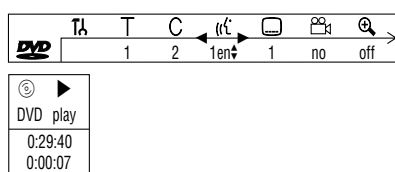
- 1 Press Next ►► during play to go to the next Track/Chapter. Press Previous ◀◀ once to return to the beginning of the current Track/Chapter. Press Previous ◀◀ repeatedly to step back to previous Tracks/Chapters.**
- 2 Or, to go directly to any Track/Chapter during play, press the Number buttons to enter the Track/Chapter number.**
If you enter an invalid number, the current Track/Chapter may continue to play. Or, an incorrect Track/Chapter may begin to play. Make sure the Track/Chapter number you enter is available on the Disc. Make sure the Chapter is available within the current Title. The Menu Bar will disappear automatically in a few seconds.



Audio Language

Some DVDs are recorded in different languages. For example, you may be able to watch the same movie in French, Spanish, etc. The movie may have special audio features, such as a director's commentary or music soundtrack. If these are available on the DVD, access the different languages or featured soundtracks by following these steps.

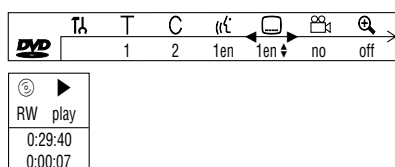
- 1** During DVD play, press the **AUDIO** button.
Audio will be selected in the Menu Bar.
- 2** Within five seconds, press the **AUDIO** button repeatedly to see the different languages available. Or, press **CH+▲** or **CH-▼** repeatedly to see the different languages. The language you select will be audible in a few seconds; the Menu Bar will disappear. The languages or options may be abbreviated. For example, French may be "Fr." See your Disc case for details on available audio features and explanations.



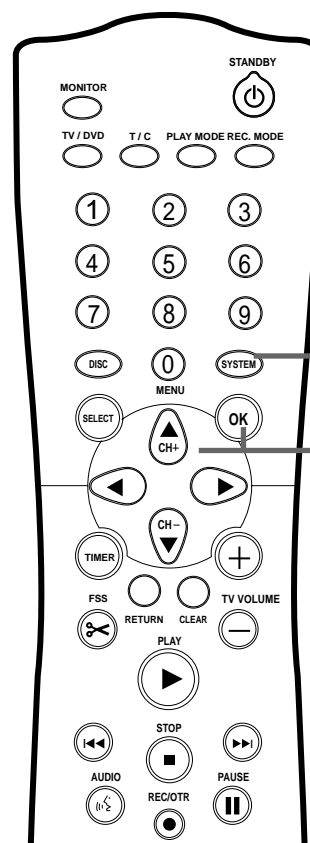
Subtitles

Some DVDs include subtitles in different languages. Or, material you recorded onto a DVD+RW or DVD+R might include subtitles. To choose subtitles, follow these steps.

- 1** During play, press **SYSTEM MENU** so Menu Bar 1 appears at the top of the TV screen.
- 2** Press **▶** repeatedly to select **Subtitle** in the Menu Bar.
- 3** Press **CH+▲** or **CH-▼** to see the available subtitle languages. Subtitles will appear after a few seconds. You can choose subtitles only if they are available on the Disc. The languages may be numbered or abbreviated, such as "En" for English.



- 4** Press **SYSTEM MENU** to remove the Menu Bar.

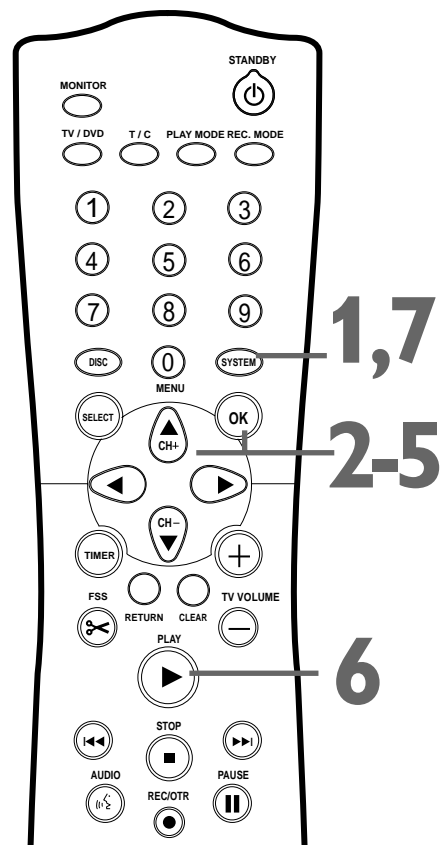
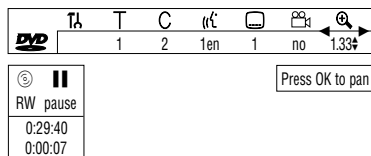


36 Zoom, Camera Angle

Zoom

Zooming lets you enlarge the video image during play and pan through the enlarged image.

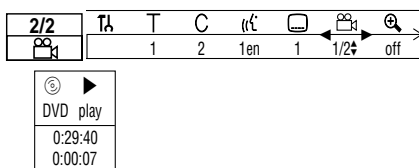
- 1** During play, press **SYSTEM MENU** so Menu Bar 1 appears at the top of the TV screen.
- 2** Press **▶** repeatedly to select **Zoom** in the Menu Bar.
- 3** Press **CH+▲** or **CH-▼** to choose 1.33, 2, or 4. Play will pause. The still picture will appear at 1.33, 2, or 4 times the normal size.
- 4** To move the enlarged picture around on the TV screen (pan), press **OK**. Then, press **CH+▲**, **CH-▼**, **◀**, or **▶** to move the picture.
- 5** Press **OK** again to see the still, zoomed picture without the Menu Bar.
- 6** To return to regular play, press **PLAY ▶**.
- 7** Press **SYSTEM MENU** to remove the Menu Bar again.



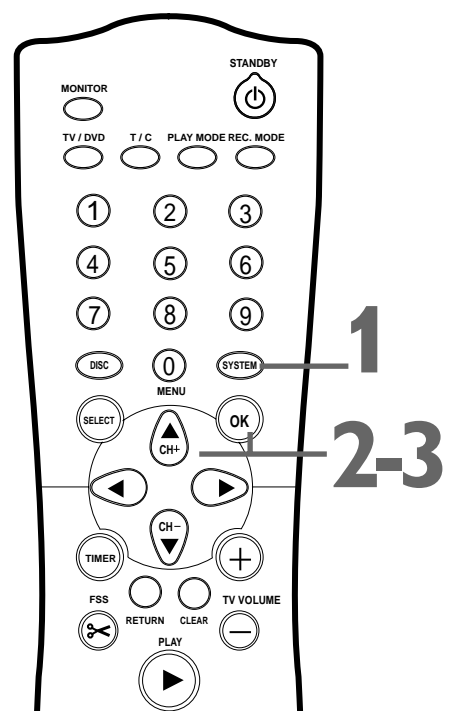
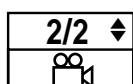
Camera Angle

Some DVDs include scenes recorded from different angles. To watch segments from a different angle, follow these steps.

- 1** During play, press **SYSTEM MENU** so Menu Bar 1 appears at the top of the TV screen.
- 2** Press **▶** repeatedly to select **Angle** in the Menu Bar.
- 3** Press **CH+▲** or **CH-▼** to select a different angle. In a few seconds, play changes to the selected angle.



If the Angle symbol appears in the top left corner of the TV screen during play, multiple angles are available. Simply press **CH+▲** or **CH-▼** to switch among the different angles.



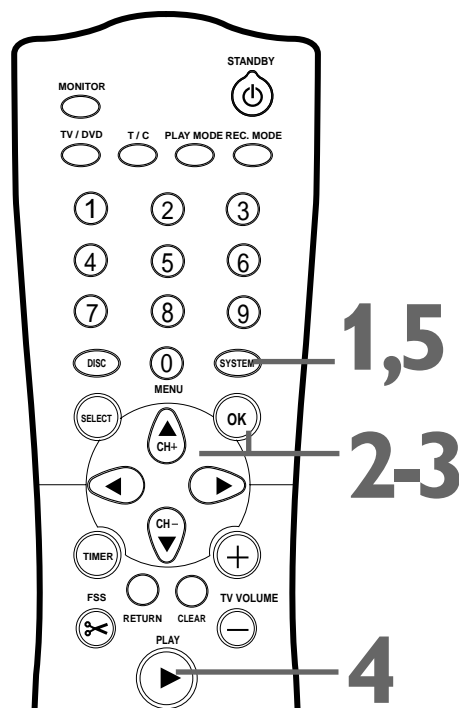
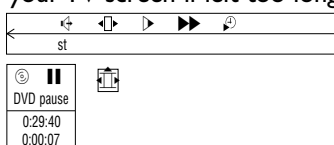
Still Picture/Frame-by-Frame Play, Sound 37

Still Picture/Frame-by-frame Playback

To quickly pause play, press PAUSE ■■ on the remote. To advance the still picture one frame at a time, press PAUSE ■■ repeatedly. To resume play, press PLAY ►.

To freeze the picture using the Menu Bar, follow these steps.

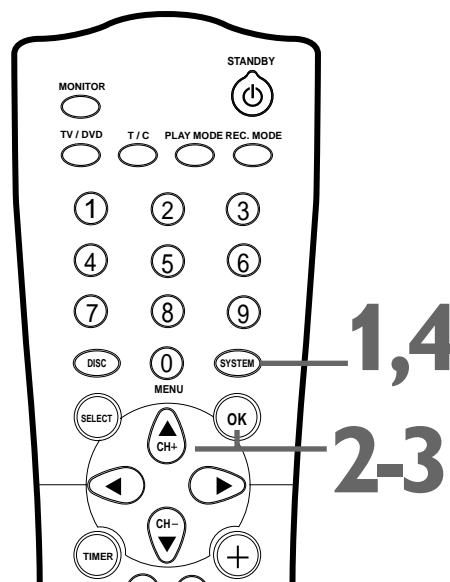
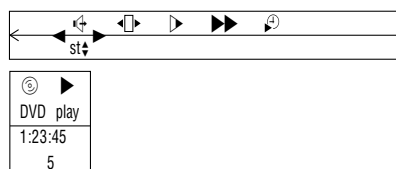
- 1 Press **SYSTEM MENU** during play so Menu Bar 1 appears.
- 2 Press ► repeatedly to select ◀▶ in Menu Bar 2.
- 3 Press **CH-▼** to freeze the picture. Press ◀ or ▶ to move the picture backward or forward one frame at a time.
Do not leave a still picture on your TV more than five minutes. This may etch the image onto your screen permanently. Other still visual elements, such as TV station logos or video games, also will damage your TV screen if left too long.
- 4 Press **PLAY ►** to resume regular play.
- 5 Press **SYSTEM MENU** to remove the Menu Bar.



Sound

Choose a sound setting based on the capabilities of the equipment to which you connected the DVD Recorder. See pages 10-16 and 62.

- 1 During play, press **SYSTEM MENU** so Menu Bar 1 appears at the top of the TV screen.
- 2 Press ► repeatedly to select ◀▶ in Menu Bar 2.
- 3 Press **CH+▲** or **CH-▼** to select st (stereo) or sur (Dolby Surround).
Select st (stereo) to hear stereo sound. This will work with equipment that has right and left audio jacks (usually red and white). Select sur (Dolby Surround) if your audio equipment is compatible with Dolby Surround. If it is, usually a Dolby Pro Logic logo will appear on the equipment.
- 4 Press **SYSTEM MENU** to remove the Menu Bar.



Helpful Hint

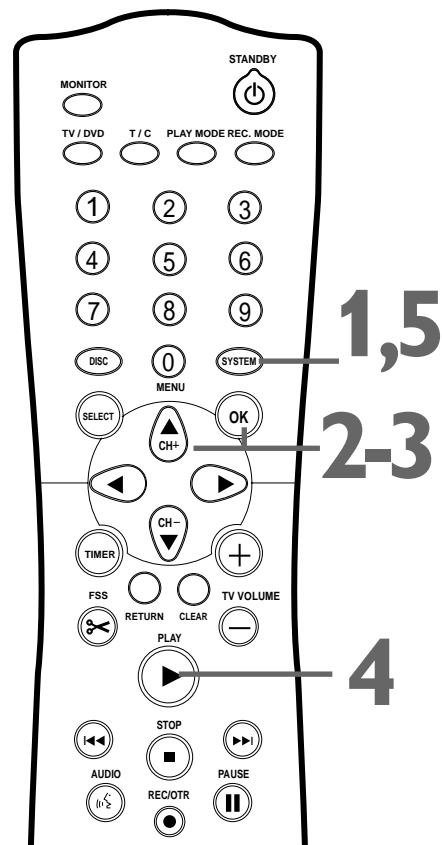
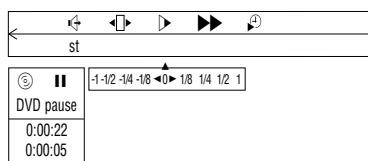
- The Recorder also refers to Sound settings as Analog output. The sound the Recorder sends to your Stereo or TV is analog, or two-channel, left and right. You are using analog sound if you used the red/white, left/right, Audio jacks. See page 62. Whether you adjust the sound here or as described on page 62, the results will be the same.

38 Slow Motion, Searching

Slow Motion

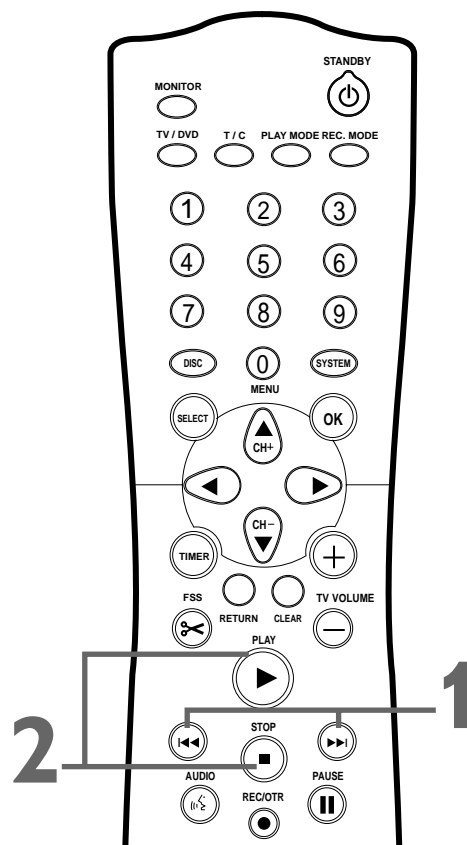
To use the Menu Bar for slow motion, follow these steps.

- 1** During Disc play, press **SYSTEM MENU** so Menu Bar 1 appears at the top of the TV screen.
- 2** Press **▶** repeatedly to select **▶** (Slow motion) in Menu Bar 2, then press **CH-▼**. Play will pause.
- 3** Press **◀** or **▶** to select the required speed: -1, -1/2, -1/4 or -1/8 (backward), or 1/8, 1/4, 1/2 or 1 (forward). The Disc will start to play at the speed you selected, for example, one-half as fast as normal (1/2).
Select 1 to play the Disc at normal speed again. Select 0 or press **PAUSE** **||** on the remote control to pause the picture.
- 4** To return to normal play, press **PLAY ▶**.



Forward and Reverse Searching

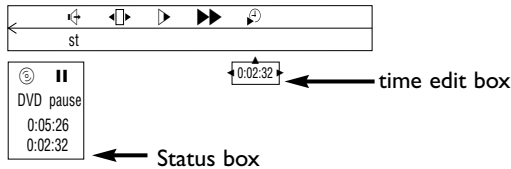
- 1** To search a Disc at four times the normal speed, press and hold **Next ▶▶▶** or **Previous ◀◀◀** during play. Repeat this to search at eight or 32 times the normal speed. The sound will be mute.
On an Audio CD, press and hold Next ▶▶▶ or Previous ◀◀◀ during play to search the Disc at four times the normal speed. Sound will be intermittent. Repeat this to search at eight times the normal speed. The sound will be mute.
Each press of **Next ▶▶▶** or **Previous ◀◀◀** switches between the slower and faster search speed.
- 2** Press **PLAY ▶** to resume play or press **STOP ■** to stop playback.



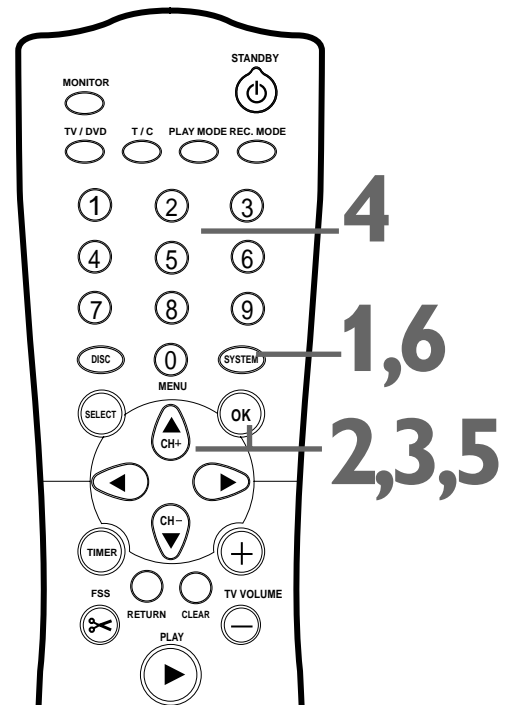
Time Search

Time Search lets you choose a specific elapsed playing time at which you want to begin playback. This feature may not be available on all Discs.

- 1** Press **SYSTEM MENU** during Disc play so Menu Bar 1 appears at the top of the TV screen.
- 2** Press **▶** repeatedly to select **▶** in Menu Bar 2.
- 3** Press **CH-▼**. Play will pause. A time edit box will appear, showing the elapsed playing time of the current Chapter or Disc.



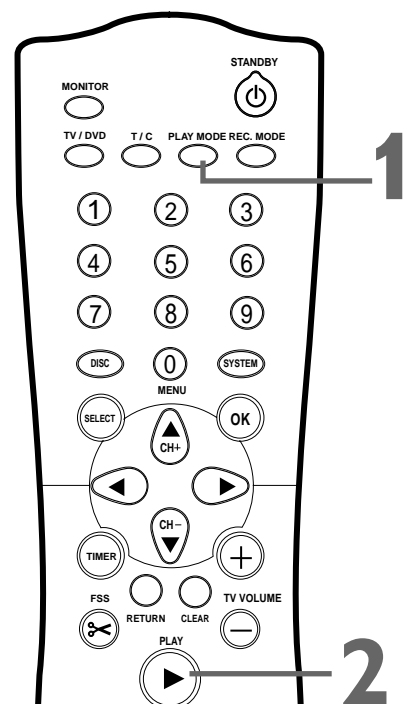
- 4** Press the **Number** buttons to enter the time at which you want play to begin. Enter the hour, minutes, and seconds from left to right in the box.
The time must be within the possible time of the current Chapter or Disc. If it is not, play will not begin after you press OK at step 5. Instead, a space in the time edit box will blink. Or, play may begin at the wrong time. Refer to the Status box to see the time available, then enter a correct time.
- 5** Press **OK**. After a few seconds, play will resume at the point you selected.
- 6** Press **SYSTEM MENU** to remove the Menu Bar.



Scan

Scanning plays the first 10 seconds of each Chapter/Track on the Disc.

- 1** Press **PLAY MODE** repeatedly during play until "scan" appears on the TV screen. Starting with the current Chapter/Track, the first 10 seconds of each Chapter/Track will play. This will continue until the end of the Disc is reached or you resume regular playback.
- 2** To stop scanning and continue regular play, press **PLAY ▶**.

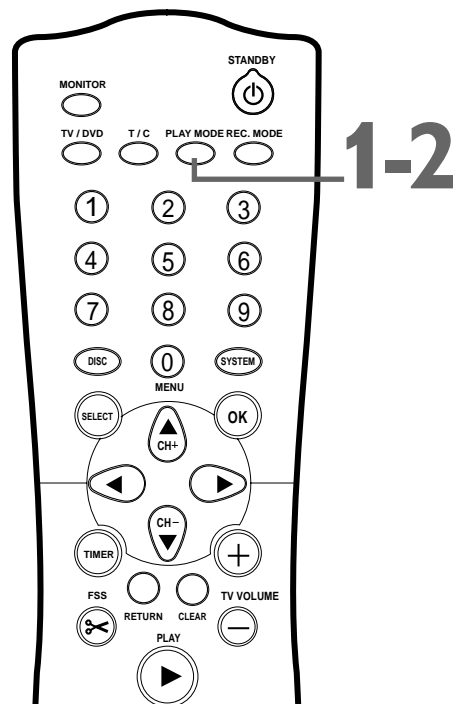


40 Repeat, Repeat A-B

Repeat

You may play a Chapter, Track, Title or entire Disc repeatedly. All Discs do not allow all the repeat options. Check your Disc for details.

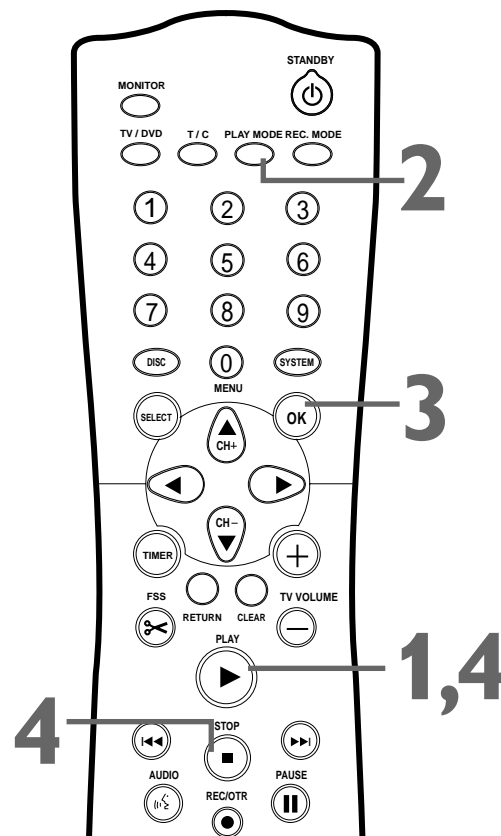
- 1 During Disc play, press **PLAY MODE** repeatedly to choose a Repeat option.** Depending on the type of Disc, you may choose to play the Chapter, Track, Title, or Disc repeatedly. The repeat symbols may appear briefly on the TV screen. See page 31.
- 2 To cancel repeat play, repeatedly press **PLAY MODE**** until all the repeat symbols or messages disappear from the screen.



Repeat A-B

You also may set the DVD Recorder to play only a specific portion of a Title, Chapter, or Track repeatedly. Follow these steps.

- 1 Press **PLAY** ► to start Disc play.**
- 2 When the Disc reaches the point at which you want repeated play to begin, press **PLAY MODE** until “repeat-A” or “A-” appears on the TV screen.**
- 3 When the Disc reaches the point at which you want to end the segment, press **OK**.** “Repeat A-B” or “A-B” will appear on the TV screen briefly. The segment will begin playing repeatedly.
- 4 To cancel Repeat A-B play, press **STOP** ■.** Press **PLAY** ► to resume normal play. The Disc may start play where you last stopped it, or play may start at the beginning of the Disc.



1 Insert a recordable DVD+RW or DVD+R into the Recorder.

2 In the Index Picture Screen of a DVD+RW, press **CH+▲** or **CH-▼** to select an Empty Title (or empty Index Picture box) on the Disc that has enough time for the recording. Or, select the place at which you want to start the new recording in order to overwrite other recordings. See page 48.
You may skip this step if you use Safe Record. See step 5.
Or, if you are using a DVD+R, you may skip this step. Recordings on a DVD+R are made at the end of the Disc automatically. Previous recordings are not overwritten.

3 Press **MONITOR** to see TV channels through the DVD Recorder. Make sure you have programmed channels. See page 26.

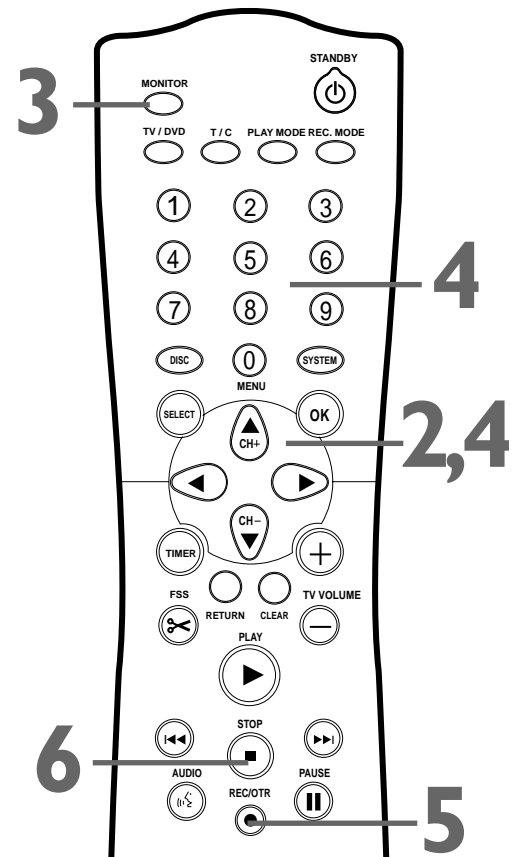
4 Press **CH+▲**, **CH-▼**, or the Number buttons to select the channel you wish to record.
If you are using a Cable Box/Satellite Receiver, enter channel 3 or 4 (the output channel of your Cable Box/Satellite Receiver) or the EXT channel (that corresponds to the jacks to which you connected the Cable Box/Satellite Receiver). Set the channel you want to record at the Cable Box/Satellite Receiver. Leave it on for the recording.

5 Press **REC/OTR** ● twice to start a 30-minute recording. Press **REC/OTR** ● repeatedly to record longer timed recordings. The length of recording available depends on the current recording mode/speed and the amount of time available on the Disc. Recording mode/speed details are on page 49. Recording will begin about 30 seconds after you press **REC/OTR** ●. (The Disc takes this time to prepare for recording.)

Or, use Safe Record to have the DVD Recorder automatically find the empty space at the end of a DVD+RW; this prevents overwriting other recordings. To do so, press and hold **REC/OTR** ● for about two seconds, or until **SAFE REC** appears on the Recorder's display panel. Then, press **REC/OTR** ● repeatedly to choose the time length you want for your recording.

If you press **REC/OTR** ● only once, or press and hold **REC/OTR** ● one time and immediately start Safe Record, the Recorder will record the current channel or source until the end of the Disc is reached. The Recorder will turn off automatically.

6 Press **STOP** ■ if you need to stop the recording before the designated end time. Otherwise, the Recorder will automatically stop recording at the designated end time and turn itself off.



Helpful Hints

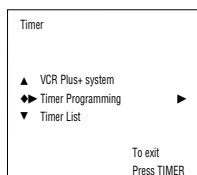
- "Disc locked" will appear on the TV if a protected DVD+RW or DVD+R is in the Recorder. Recording is not possible.
- If the power fails during recording, the Index Picture Screen may not match the actual video content on the Disc. The last recorded Title may be lost. A power failure or unit failure/system crash also may destroy all the material recorded on a Disc.
- If no free space remains on the Disc, **DISC FULL** will appear. Recording is not possible.
- Press **SYSTEM MENU** during recording to access or remove the Status box, Tuner Information box, and/or Timer Information box. See pages 31 and 33.
- The recommended operating temperature range for the Recorder is from 32°F-122°F (Fahrenheit) for DVD+RW recording and 32°F-104°F for DVD+R recording. Exceeding these ranges may cause unstable recording results.

- If you plan to play a DVD+R on another DVD Player, finalize the Disc. Follow the steps on page 52.
- To edit your recordings, see page 51. However, editing changes may not be accessible when you play the Disc on other DVD Players.
- To erase a recording, see "Erase this title" details on page 47.

42 Timer Recording

1 Press **TIMER**.

2 Press **CH-▼** to select **Timer Programming**, then press **►**.



3 Date will be selected. Press **CH+▲** or **CH-▼** to enter the month and date you want the recording to start. Press **SELECT** repeatedly to choose: the date (timer recording will occur once on the day you choose); **Mo-Fr** (timer recording will occur every weekday at the same time); or a **day of the week** (for example, Mo for Monday; timer recording will occur every Monday at the same time). When the date is correct, press **►**.

Timer Timer Programming					Rec Mode
Date	Ch.	Start	End		
10/24	122	09:00AM	09:30AM		M1
Mo-Fr/Weekly					To store
Press SELECT					Press OK

Press SELECT once.
Recording will happen one
time on the day you chose.

Timer Timer Programming					Rec Mode
Date	Ch.	Start	End		
Mo-Fr	122	09:00AM	09:30AM		M1
Mo-Fr/Weekly					To store
Press SELECT					Press OK

Press SELECT again.
Recording will happen every day,
Monday-Friday, starting on the
day you chose.

Timer Timer Programming					Rec Mode
Date	Ch.	Start	End		
Th	122	09:00AM	09:30AM		M1
Mo-Fr/Weekly					To store
Press SELECT					Press OK

Press SELECT again.
Recording will happen on the same
day every week, starting the day you chose.

4 Ch. (channel) will be selected. Press **CH+▲** or **CH-▼** to enter the channel you want to record, then press **►**.

If you are using a Cable Box/Satellite Receiver, enter channel 3 or 4 (the output channel of your Cable Box/Satellite Receiver) or the EXT channel (that corresponds to the jacks to which you connected the Cable Box/Satellite Receiver). Set the channel you want to record at the Cable Box/Satellite Receiver. Leave it on for the recording.

5 Start will be selected. Press **CH+▲** or **CH-▼** to enter the time at which you want recording to begin - in hours and minutes. Press **SELECT** repeatedly to choose **AM** or **PM**. When the Start time is correct, press **►**.

6 End will be selected. Press **CH+▲** or **CH-▼** to enter the time at which you want recording to stop. Press **SELECT** repeatedly to choose **AM** or **PM**. When the End time is correct, press **►**.

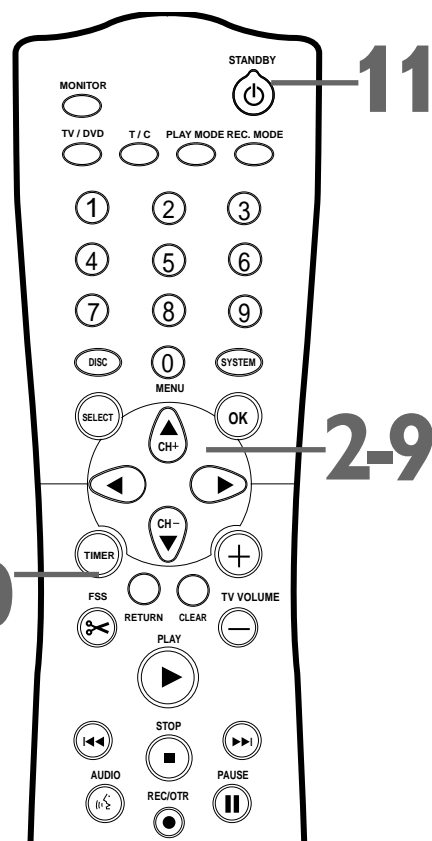
7 Rec Mode (Record Mode) will be selected. Press **CH+▲** or **CH-▼** to choose a recording speed: **M1**, **M2x**, **M4**, or **M6**. See page 49.

8 Check your timer information. If something is incorrect, press **◀** or **▶** to choose the incorrect data. Use **CH+▲** or **CH-▼** to enter the correct data.

9 When the information is correct, press **OK**. Stored will appear at the bottom of the screen, then the Timer menu will reappear. "Switch off; timer recording" will be highlighted in red at the bottom of the screen. This is a reminder to turn off the DVD Recorder so the recording can occur.

10 Press **TIMER** to remove the menu.

11 Put a recordable **DVD+RW** or **DVD+R** in the Recorder. Press **STANDBY** to turn off the Recorder. For the timer recording, the Recorder will turn itself on, record, then turn itself off when finished. A red light will encircle the Record button on the Recorder during recording. If you plan to play a DVD+R on another DVD Player, finalize the Disc. Follow the steps on page 52.



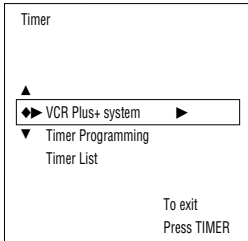
Helpful Hints

- You can enter the Date, Channel, Start, and End information with the Number buttons. Enter channel numbers as a three-digit number. For example, for channel 15, press 0,1,5.
- Press **STANDBY** on the remote to turn off the Recorder and stop a timer recording that is in progress.
- You cannot select Timer Programming if six recordings are set. Delete a recording, then set a new one. See page 44.
- Set a Timer recording and turn off the Recorder five minutes before the recording will start.
- Set the timer recording one minute ahead of the program's start time. This helps ensure the entire program is recorded. The Disc needs about 30 seconds to prepare for recording.
- You cannot change channels during recording.
- To edit your recordings, see page 51. Editing changes may not be accessible when you play the Disc on other Players.
- TIMER** will appear on the display panel if a Timer Recording is set.

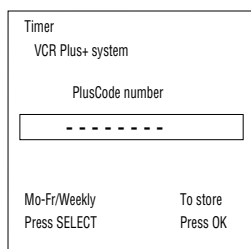
A PlusCode® number is a number of up to eight digits, printed in most TV guides next to the start time of a TV program. You can program a timer recording quickly by entering the code for your program. Before you begin, complete the VCR Plus+® channel setup. See page 27.

1 Press TIMER on the remote control.

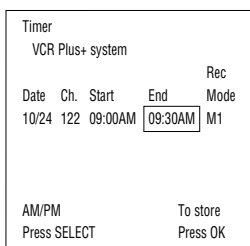
2 Press CH+▲ to select VCR Plus+ system, then press ►.



3 Press the Number buttons to enter the PlusCode number from your TV guide, then press OK. If you make a mistake, press CLEAR to erase the PlusCode number, then enter it again. Information about the timer will appear. If information is missing or not available, you may be asked to enter more information. Follow the instructions on the screen. You may be asked to enter a channel number if you have not set up VCR Plus+ channels. See page 27.

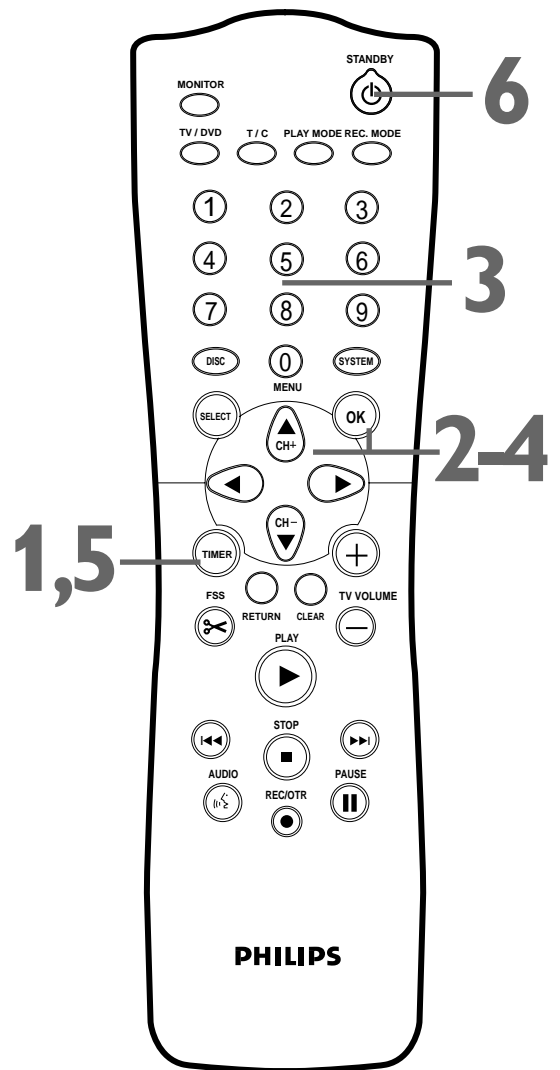


4 If the timer recording information seems correct and complete, press OK. Stored will appear at the bottom of the screen briefly. The Timer menu will reappear.



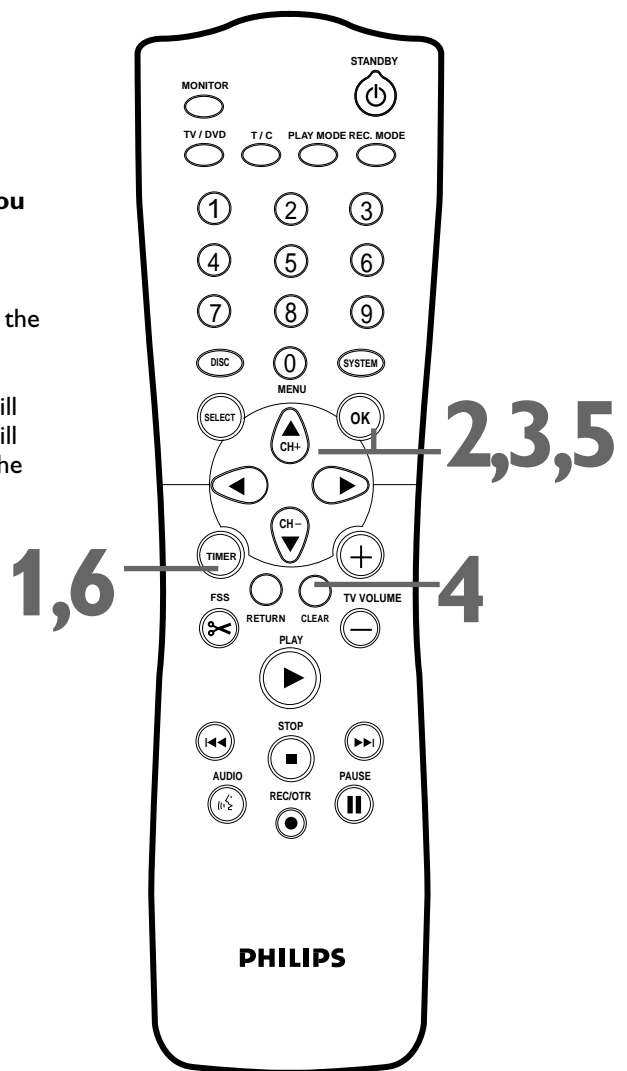
5 Press TIMER to remove the menu.

6 Put a recordable DVD+RW or DVD+R in the Recorder. Press STANDBY ⏻ to turn off the Recorder at least five minutes before the timer recording is set to begin. The Recorder must be off in order for the timer recording to occur. If you plan to play a DVD+R on another DVD Player, finalize the Disc. See page 52. To edit your recordings, see page 51. However, editing changes may not be accessible when you play the Disc on other DVD Players.




44 Erasing Timer Recordings

- 1** Press **TIMER**.
- 2** Press **CH-▼** to choose Timer list, then press **▶**.
- 3** Press **CH+▲** or **CH-▼** to highlight the timer recording you want to erase.
- 4** Press **CLEAR**. The recording you selected will appear alone on the screen beneath "Clear Timer."
- 5** Press **OK** to erase the timer recording. "Timer Cleared" will appear at the bottom of the screen briefly, then the Timer List will reappear. (If you decide not to erase the timer recording, press the **TIMER** button. The Timer List will reappear.)
- 6** Press **TIMER** repeatedly to remove the menus.



Helpful Hint

- Press **STANDBY**  on the remote to turn off the Recorder and stop a timer recording that is in progress.

These messages may appear while or after you set a timer recording.

Collision

The timer recording overlaps with another timer recording. Timer recordings that overlap or conflict with another will appear in a red highlight in the Timer List.

- To ignore the message, press **TIMER** repeatedly to remove all the menus. The program with the earlier start time will record completely, then the remainder of the later program will record.
- Change one or both timer recordings. See page 42.
- Delete one of the timer recordings. See page 44.

Please enter channel number

The VCR Plus+ programming system does not recognize the TV channel.

- Use the Number buttons to enter the required VCR Plus+ channel number, then press **OK**. See page 27.

PlusCode number wrong

You entered an incorrect PlusCode number.

- Enter the correct information or press **TIMER** repeatedly to quit.

Weekend programming not possible

You entered an incorrect date or chose a daily (Mo-Fr) recording. You can only use daily programming for recordings that will occur Monday, Tuesday, Wednesday, Thursday, or Friday.

Clock not set

You cannot access the Timer menu if the clock is not set. See pages 28-29 to set the clock.

This message also may appear if you turn on the Recorder while the PBS channel is downloading the time. Turn off the Recorder for a few minutes to let the download finish.

Data error

Make sure all information for the timer recording is correct and complete.

Insert recordable disc

There is not a DVD+R or DVD+RW in the Recorder. Put a recordable DVD+R or DVD+RW in the disc tray before turning off the Recorder for the timer recording.

Memory full

There are six Timer recordings set. You cannot set more than six at a time.

Disc locked

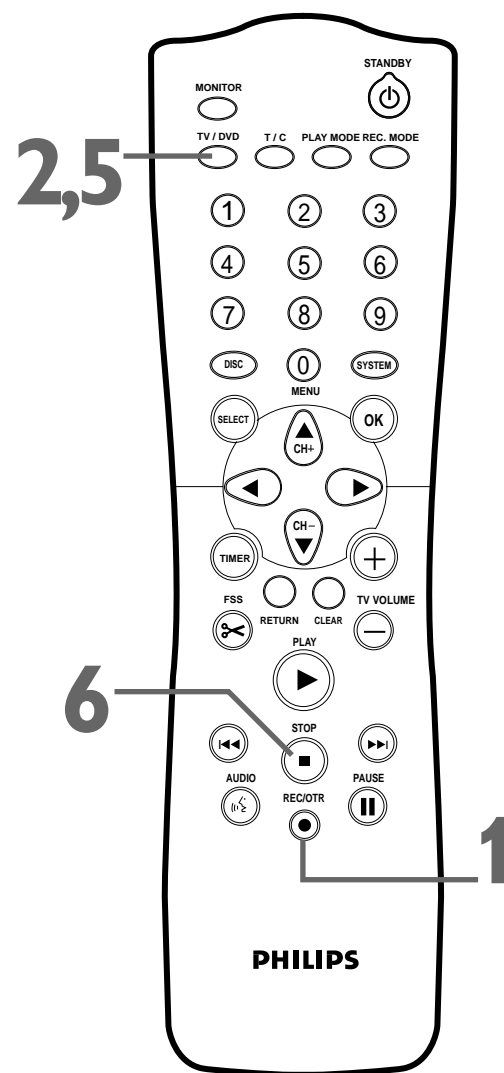
A protected DVD+RW or DVD+R is in the Recorder. Recording is not possible on the current Disc. You may be able to change Protection to "Unprotected." See page 50.

Helpful Hint

- You cannot duplicate copyrighted DVDs, videotapes, or TV broadcasts using the DVD Recorder. "COPY PROTECT" will appear on the display if you try to dub or record copyrighted material onto a DVD+R or DVD+RW using the Recorder.

46 Record One Channel/Watch Another

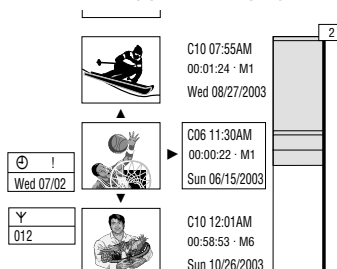
- 1** Press **REC/OTR** ● to record the current **TV** channel. A red light will encircle the Record ● button on the front of the Recorder to indicate recording is in progress. See page 21.
- 2** Press **TV/DVD** on the remote to put the Recorder in **TV** position. TV will appear briefly on the Recorder's display panel.
- 3** Use the **TV** remote control to select the channel you want to watch at the **TV**. (If you have a Philips TV, you may be able to hold down the DVD/TV button on the side of the remote and use the **CH+▲** and **CH-▼** buttons to change channels at the TV. See page 23.)
- 4** To return to the recording, use the **TV** remote control to reselect the **TV** channel at which you usually view the **DVD Recorder**. This may be a Video In channel or channel 3 or 4, depending on how you connected the DVD Recorder to the TV. The channel being recorded will appear on the TV screen.
- 5** Press **TV/DVD** on the Recorder's remote control to return the Recorder to **DVD** position. DVD will appear briefly on the Recorder's display panel.
- 6** To stop recording, press the **STOP** ■ button.



- 3** Select the channel you want to watch at the TV.
- 4** Reselect the Video In channel at the TV.

The Title Settings Menu lets you rename a Title or a recording on a DVD+RW or unfinalized DVD+R. From the same menu, you can play or erase a Title.

- 1 When DVD+RW or DVD+R play is stopped, the Index Picture Screen will appear. See page 32.



- 2 Press CH+▲ or CH-▼ to select the Index Picture of the recording you want to name, play, or erase, then press ►. The Title settings menu will appear.

- 3 Press CH+▲ or CH-▼ to select Name, Play full title, or Erase this title. You cannot choose Name or Erase this title if a DVD+R is finalized. Continue as directed in step 4.

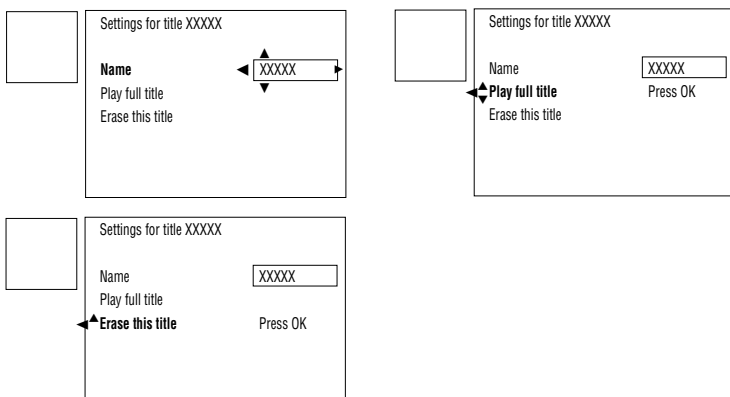
- 4
 - **Name**
Press ►. The first character of the Title name will be selected.
Press CH+▲ or CH-▼ to change the character.
Press SELECT to switch between upper and lower case letters. Press CLEAR to erase a character. (The space will remain.) To move to the next or previous character, press ◀ or ▶.
Repeat this process until you have finished naming the Title.
When the Title is complete, press OK. "Storing Name" will appear while the name is stored.

● Play full title

Press OK. The Disc will play from the beginning of the Title you selected.

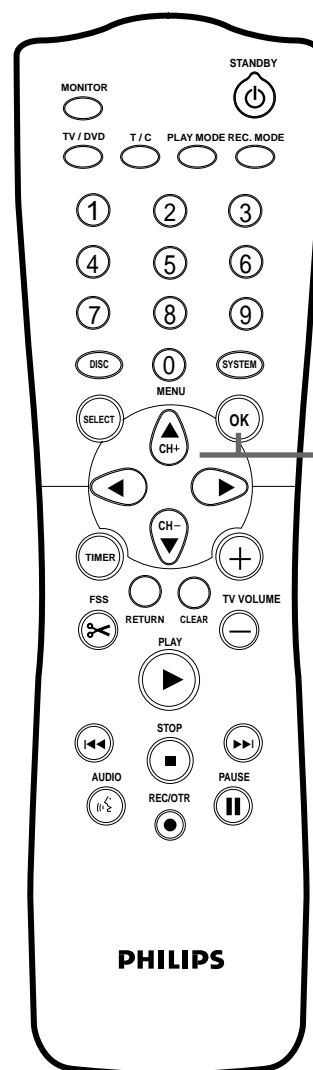
● Erase this title

Press OK. The DVD Recorder will ask you to confirm that you really want to erase the entire Title. Press OK again to start erasing the Title. "Erasing title" will appear during erasure. When erasing is complete, the Index Picture Screen will reappear.



(If you do not want to erase the Title, press ◀ to return to the Title Settings menu instead.)

- 5 Press ◀ to return to the Index Picture Screen if necessary.



2-5

Helpful Hints

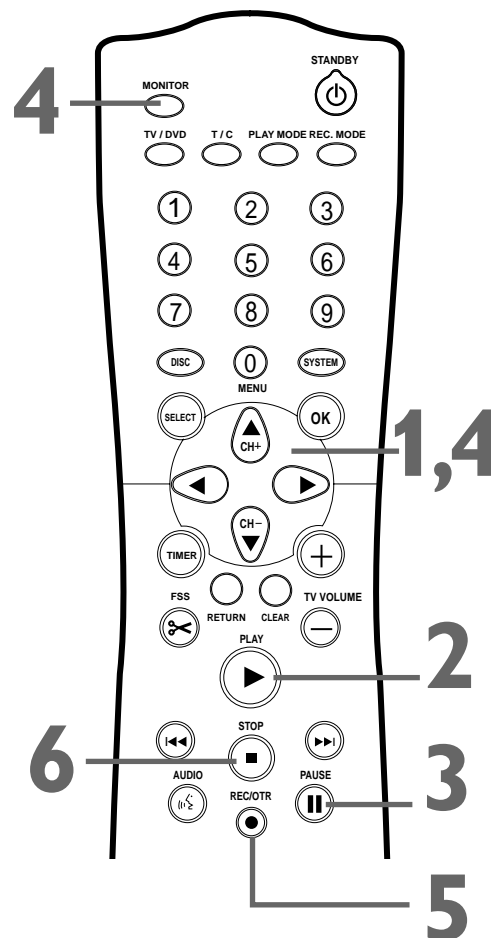
- If you erase a Title from a DVD+R, you cannot reuse the space for other recordings. "Deleted title" will appear beside an empty Index Picture box. Recordings are always made at the end of a DVD+R.
- Unless you change the Title name, it will contain the source/channel and time that you recorded.

48 Append Recording, Chapter Markers

Append recording

To add a new video recording to a previously recorded Title, follow these steps. This feature is not available on DVD+Rs, which always record at the end of the Disc.

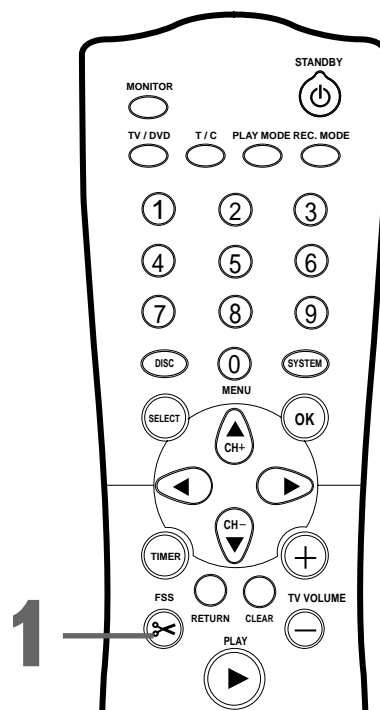
- 1** In the Index Picture Screen, press **CH+▲** or **CH-▼** to select the Title to which you want to add a recording.
- 2** Press **PLAY ►**.
- 3** When you reach the point at which you want to add the new recording, press **PAUSE ■■**.
- 4** Press **MONITOR**, then press **CH+▲** or **CH-▼** to select the channel (or other equipment) you want to record.
- 5** Press **REC/OTR ●**. The new recording will start at the point you selected and overwrite the video material beyond this point, including later Titles.
- 6** Press **STOP ■** to stop recording.





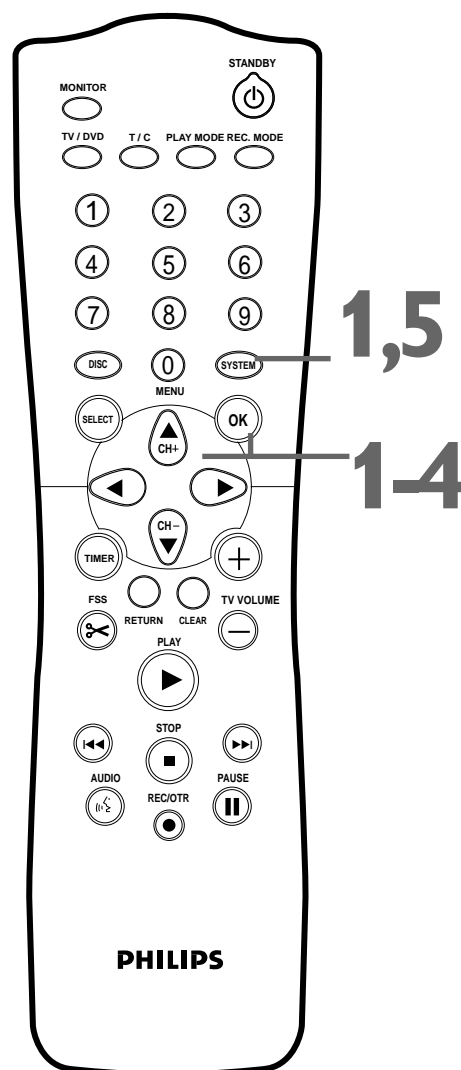
Chapter Markers

Chapter Markers let you move easily through recordings by pressing Next **►►** or Previous **◄◄** to select the next marker during play. This lets you access specific points on a DVD+RW/DVD+R much as you would choose a Chapter on a DVD.

- 1** Press **FSS** during recording to insert a Chapter marker at the current position. "Inserting chapter marker" will appear. The maximum number of markers varies per Disc. When the maximum number is reached, "Too many chapters" may appear.



- 1 Press **SYSTEM MENU**. Press ◀ to select  in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select  in the next menu screen, then press ▶.
- 3 Press **CH+▲** or **CH-▼** to select **Record mode**, **Auto chapters**, or **Filter mode**, then proceed as detailed in step 4.
- 4
 - **Record mode**
Press ◀ or ▶ to choose **M1**, **M2x**, **M4**, or **M6**, then press **OK**. Recordings will be made in the speed you selected. The recording mode defines the picture quality of recordings and the maximum recording time for a Disc. You can play a Disc only in the mode in which it was recorded. See the chart below for details.
 - **Auto chapters**
Press ◀ or ▶ to choose **On** or **Off**, then press **OK**. If you choose **On**, the Recorder automatically will insert a Chapter marker every five to six minutes during recording. To disable this feature, select **Off**. You still can insert Chapter markers manually during recording. See page 48.
 - **Filter mode**
Press ◀ or ▶ to choose **Stdndr** (**Standard**) or **Sport**, then press **OK**. Select **Sport** to improve recording of images that move quickly. Otherwise, choose **Stdndr**.
- 5 Press **SYSTEM MENU** repeatedly to remove the menus.



Mode	Picture quality	Recording time per Disc
M1	Highest quality; least recording time per Disc	1 hour
M2x	Better quality than an S-VHS videotape	2.5 hours
M4	Better quality than a VHS videotape	4 hours
M6	Equals quality of a VHS videotape	6 hours

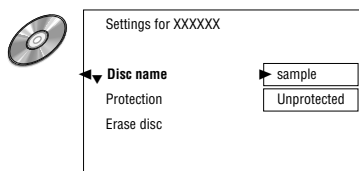
Helpful Hints

- If you set Record mode to a low-quality speed, set it to a high-quality speed after you finish recording. Leaving the Recorder set to a low-quality speed may affect the picture quality when playing DVDs later.
- VHS represents Video Home System. S-VHS represents Super-Video Home System. These videotapes are commonly used for home video recordings on VCRs or Camcorders.

50 Editing: Disc Information Screen

You can change Disc settings for a DVD+RW or unfinalized DVD+R from the Disc Information Screen.

- 1** When in the Index Picture Screen, press **STOP ■** to select the first Title on the DVD+RW/DVD+R.
- 2** Press **CH+▲** to enter the Disc Information Screen.
- 3** In the Disc Information Screen, press **▶** to enter the **Settings** menu. This action is not possible if a finalized DVD+R is in the Recorder.



DVD+RW example

- 4** Press **CH+▲** or **CH-▼** to select **Disc name**, **Protection**, **Erase disc** (DVD+RW only), or **Finalize disc** (unfinalized DVD+R only). Proceed according to the feature you chose.

- **Disc name (DVD+RW and DVD+R)**

Press **▶**. Press **◀** or **▶** to choose the character position, then press **CH+▲** or **CH-▼** to enter a character. Press **SELECT** to alternate between capital and lower case characters. Press **CLEAR** to erase a character (the space will remain). Repeat this process until you enter the complete name. **To save the name, press OK.** "Storing name" will appear briefly.

- **Protection (DVD+RW and DVD+R)**

Press **▶**. Press **CH+▲** or **CH-▼** to select **Protected** or **Unprotected**, then press **OK**.

If you choose **Protected**, you cannot change the Disc, including recording or editing. "Disc locked" will appear on the TV briefly. To edit or record again, select **Unprotected**.

Remember, protecting a DVD+R is not the same as finalizing it. Finalization cannot be undone.

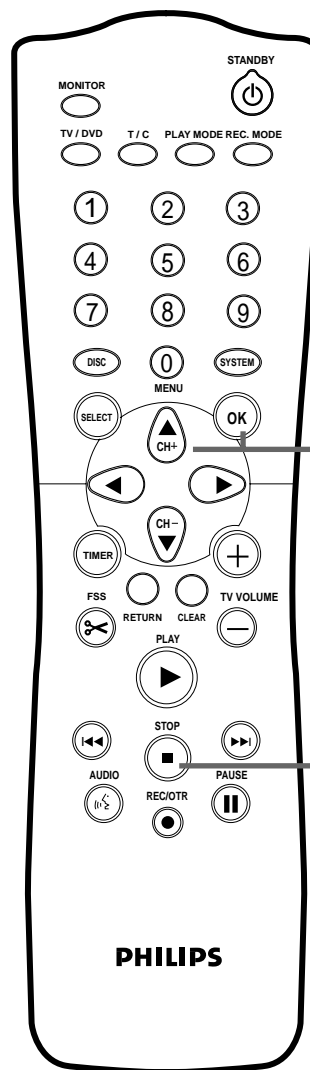
- **Erase disc (DVD+RW only)**

Press **OK**. "This will erase all titles Press **OK** to confirm" will appear. Press **OK** again to begin erasing. (If you decide not to erase the Disc, press **◀**.) "Erasing disc" appears until erasing is complete. When the Disc is erased, the Index Picture Screen will reappear, showing the free space on the Disc.

- **Finalize disc (Unfinalized DVD+R only)**

Press **OK**. "Finalizing disc" will appear until finalization is complete. This may take a few minutes. Then, the Index Picture Screen will reappear. **You cannot unfinalize a DVD+R, and you cannot record or edit the DVD+R after you finalize it. A DVD+R will play on other DVD Players only after the Disc is finalized.**

- 5** If necessary, press **◀** when you are finished and want to return to the Disc Information Screen. Press **CH-▼** to return to the Index Picture Screen.

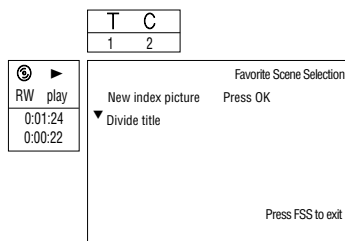


Helpful Hints

- For information on the Index Picture Screen, see page 32.
- These settings are not changeable for a finalized DVD+R.
- If a DVD+R was recorded on a different DVD Recorder, the settings may not be accessible.
- A disc name may contain a maximum of 64 characters.

Although all editing changes may not be accessible when you play the Disc on other DVD Players, these editing changes are available for the DVD Recorder.

- 1 During DVD+RW or DVD+R play, press **FSS**. The Favorite Scene Selection menu will appear as play continues. The current Title and Chapter numbers will appear at the top of the screen.

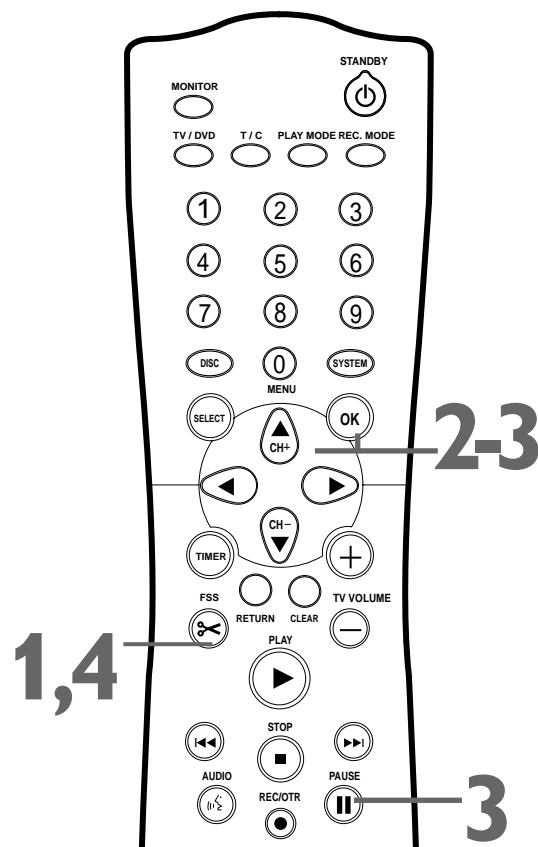


- 2 Press **CH+▲** or **CH-▼** to select **New index picture** or **Divide title (DVD+RW only)**. Proceed according to your choice as described in step 3.

- 3
 - If you select **New Index Picture**, press **PAUSE II** to choose a frame of picture during play. This frame will become the miniature picture that represents the current Title in the Index Picture Screen.
Press OK. "This will update the index picture Press OK to confirm" will appear. **Press OK again.** (If you decide not to select a new Index Picture, press **◀**.) "Updating menu" will appear; then the Index Picture Screen will reappear when the action is complete.

- If you select **Divide title (DVD+RW only)**, press **PAUSE II** during play to choose the point at which you want to start the new Title. **Press OK.** "This will divide this title into two separate titles. Press OK to confirm" will appear. **Press OK again.** (If you decide not to divide the Title, press **◀**.) "Dividing title" appears in the menu until the action is complete. This may take a few minutes, then the Index Picture Screen will reappear.

- 4 Press **FSS** to remove the Favorite Scene Selection menu if necessary.





Helpful Hints

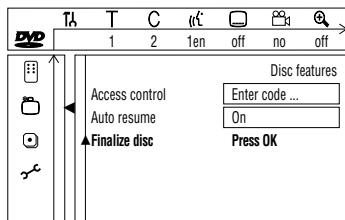
- You cannot undo a Title division. The Index Picture Screen will show two Titles instead of one.
- Editing changes on DVD+Rs will be accessible only when playing the DVD+R on this DVD Recorder. You cannot edit a DVD+R after it is finalized.

52 Finalize Disc

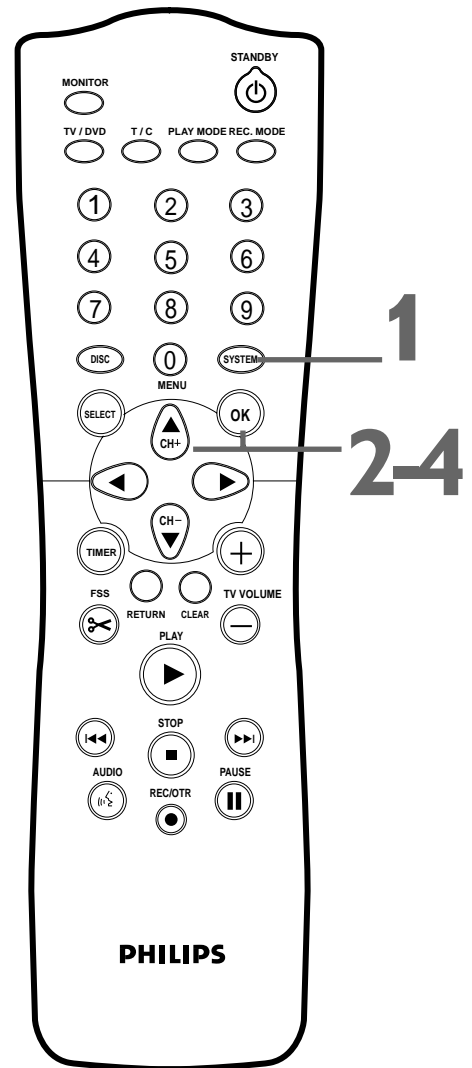
You can finalize DVD+Rs one time. After you fill a DVD+R or complete all the recordings you want on a single DVD+R, finalize it. Otherwise, the DVD+R will play only on this Recorder. To play the Disc on other DVD Players, you must finalize it first.

Once you finalize a DVD+R, you cannot record on it anymore or make editing changes. Therefore, make sure the Disc is as you want it before you finalize it.

- 1 Press SYSTEM MENU.** Press ◀ to select  in the top left corner of the menu bar at the top of the TV screen.
- 2 Press CH-▼ repeatedly** to select  in the second screen, then press ▶.
- 3 Press CH-▼ repeatedly** to select **Finalize disc**. Finalize disc appears in the menu only when an unfinalized DVD+R is in the Recorder.



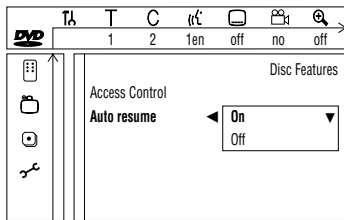
- 4 Press OK.** "Finalizing" will appear in the menu. The process may take a few minutes. **When finalization is complete, the Index picture screen will reappear.** You cannot unfinalize a DVD+R, and you cannot record or edit the DVD+R after you finalize it. A DVD+R will play on other DVD Players only after the Disc is finalized.



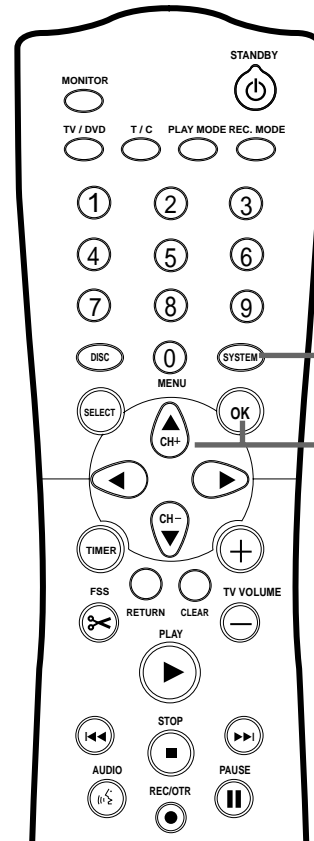
Auto Resume, Playback Control 53

Auto resume affects the last 20 prerecorded DVDs and Video CDs you played. When Auto resume is On, play resumes where you last stopped the Disc. If Auto resume is Off, play starts at the beginning of the Disc.

- 1 Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select **Access Control** in the second screen, then press **▶**.
- 3 Press **CH-▼** to select **Auto resume**, then press **▶**.
- 4 Press **CH+▲** or **CH-▼** to select **On** or **Off**, then press **OK**.



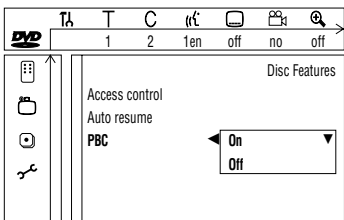
- 5 Press **SYSTEM MENU** to remove the menus.



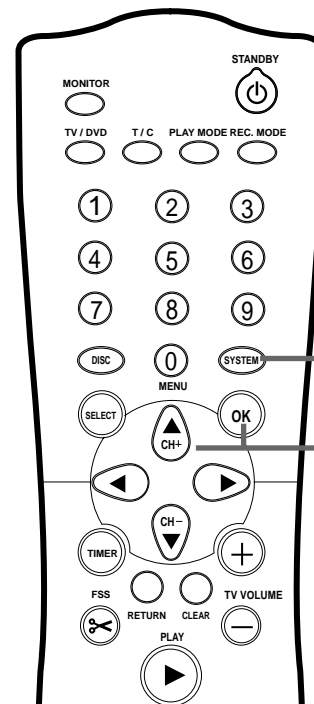
Playback Control

Some Video CDs have interactive menus that customize play. If the Video CD has Playback Control (PBC), follow these steps to turn it on or off.

- 1 Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the Menu Bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select **Access Control** in the second screen, then press **▶**.
- 3 Press **CH-▼** repeatedly to select **PBC**, then press **▶**. It appears in the menu only when a Video CD with Playback Control is in the Recorder.



- 4 Press **CH+▲** or **CH-▼** to select **On** or **Off**, then press **OK**.
- 5 Press **SYSTEM MENU** to remove the menus.



Helpful Hints

- If resume appears when you start play, press **PLAY ▶**. This lets you resume play from the last played point, even if Auto resume is Off. See page 20.
- The display panel will be blank during play of a Video CD with PBC On.

.....

1 2 3

	(4)	(5)	(6)
1. NAME OF THE COMPANY			
2. DATE OF THE ORDER			
3. QUANTITY ORDERED			
4. UNIT PRICE			
5. TOTAL AMOUNT			
6. TERMS OF PAYMENT			
7. DELIVERY DATE			
8. REMARKS			

- [illegible]



- | | | | | | | |
|------------|---|---|-----|-----|----|-----|
| DVD | 1 | 2 | 1en | off | no | off |
|------------|---|---|-----|-----|----|-----|



-



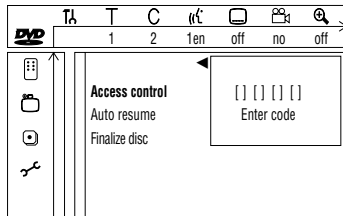
- _____

- The code may not go into effect

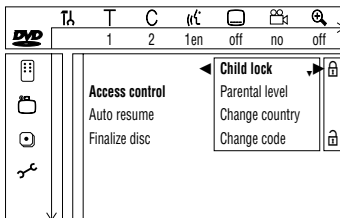
- page 52.

Child Lock

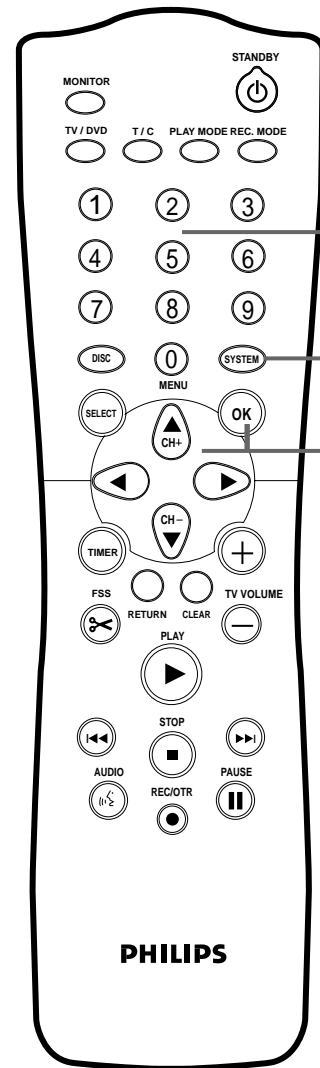
- 1 Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select **🔒** in the second screen, then press **▶**. Access control will be highlighted.
- 3 Press **▶** again, then press the **Number** buttons to enter your four-digit code. See page 54.



- 4 Child lock will be highlighted. Press **▶**.



- 5 Press **CH+▲** or **CH-▼** to select **Locked 🔒** or **Unlocked 🔓**, then press **OK**. If you chose Locked, unauthorized or Locked Discs will not play unless you enter your four-digit code.
- 6 Press **SYSTEM MENU** to remove the menus.



Helpful Hint

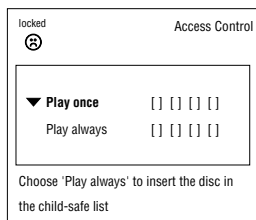
- Finalize disc will appear in this menu only when a non-finalized DVD+R is in the Recorder. See page 52.

56 Access Control (cont'd)

Locking or Unlocking Specific Discs

Not all Discs are rated or coded by Parental levels. You may choose to specifically lock or unlock a Disc by choosing Play once or Play always. This way, you can disable viewing regardless of the rating of a DVD. You will need to know your 4-digit code in order to view the Disc.

- 1 Insert a Disc.** The Access Control message will appear on the TV screen. (Child Lock should be Locked. See page 55.)

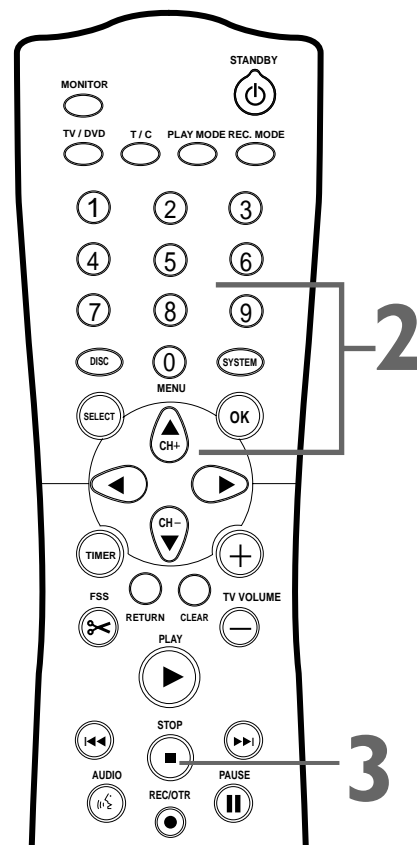


- 2 Press CH+▲ or CH-▼ to select Play once or Play always. Then, press the Number buttons to enter your four-digit code.**

If you select Play Once, the Disc will play one time. If you stop playback, open the Disc tray, or turn off the Recorder's power, the Access Control screen will reappear when you try to play the Disc again.

If you select Play Always, the Disc will play even if you turn off the DVD Recorder, open the disc tray, or set Child Lock to (Locked). See page 55.

- 3 If you later decide to lock the Disc so it will not play always:** When you insert the Disc, safe appears on the TV screen. **Press STOP ■ while safe is on the TV screen.** Locked will appear. If the Disc continues playing, press STOP ■ again to stop playback. You may need to turn off the DVD Recorder or remove the Disc before the Disc is completely Locked. The next time you turn on the DVD Recorder or try to play the Disc, the Access Control screen will appear. The Disc will not play unless you enter the four-digit code.



- 1** Insert a Disc.

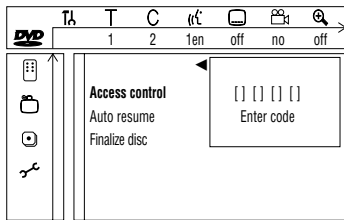
Helpful Hints

- The Access Control screen will appear when you try to play a Locked Disc. If you do not know your code, press STOP ■. Then, select Access Control as described in steps 1-3 on page 54. When you are asked to enter the code, press STOP ■ four times. Press SYSTEM MENU, then press PLAY ► to start playback. This restores all the Access Control settings to their original factory settings.
- Two-sided DVDs may have a different ID for each side. To unlock the entire Disc, unlock each side.
- Multi-volume Disc sets may have a different ID for each volume. Unlock each volume.

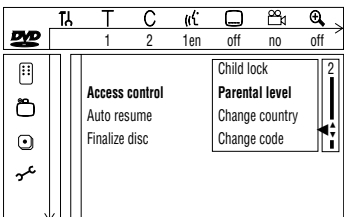
Parental Level

DVDs may contain alternative scenes that conform to the Parental Level, or movie rating, that you select. The Parental Level may apply to the complete Disc or to certain scenes on the Disc. These scenes are rated from 1 to 8. Follow the steps below to set the Parental Level at which you want Discs to play.

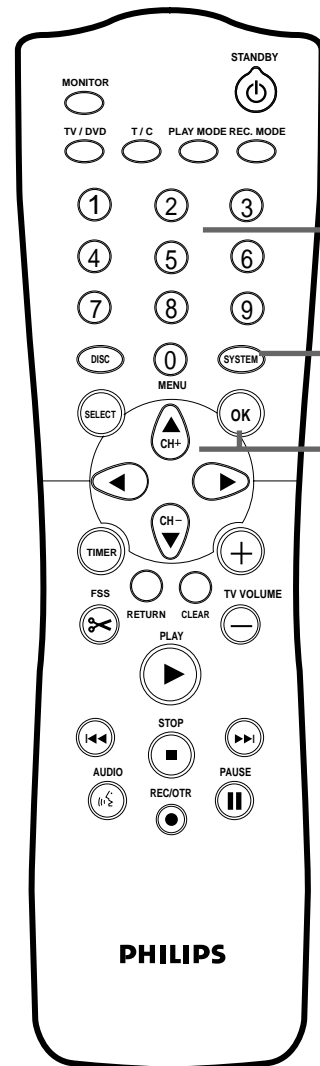
- 1** Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select **Access control** in the second screen, then press **▶**. Access control will be highlighted.
- 3** Press **▶** again, then press the **Number** buttons to enter your four-digit code.



- 4** Press **CH-▼** to select **Parental level**, then press **▶**.
- 5** Press **CH+▲** or **CH-▼** or the **Number** buttons to select a rating, then press **OK**.
Select "0" (—) to deactivate Parental level. The entire Disc will play. Choose a rating between 1-8, and scenes with the same rating or lower will play. Higher rated scenes will not play unless an alternative scene is available on the Disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, play will stop. Enter the four-digit code to play the Disc.



- 6** Press **SYSTEM MENU** to remove the menus.



Helpful Hints

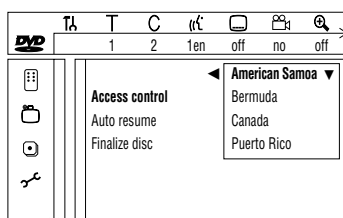
- The rating numbers compare to standard U.S. movie ratings as follows:
 - 7 - NC-17
 - 6 - R
 - 4 - PG-13
 - 3 - PG
 - 1 - G
- Finalize disc will appear in this menu only when a non-finalized DVD+R is in the Recorder. See page 52.

58 Access Control (cont'd)

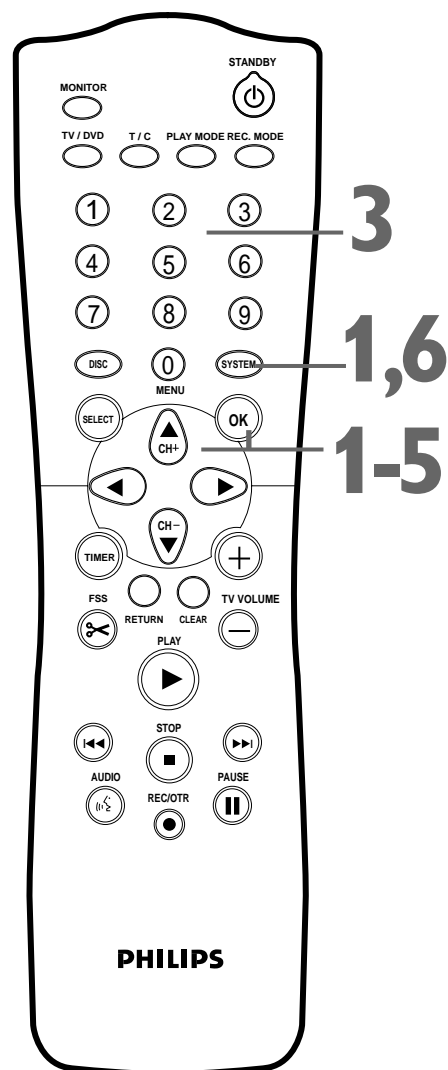
Change Country

If a Disc has Parental Level coding, the codings are applicable only for the country specified on the Disc. The Disc manufacturer sets these codings. For example, a Disc may be coded at Level 3 for the United States. So, for some Discs, you may need to choose the Country for which the Disc is coded in order for the Disc to play at the Parental Level you select. See page 57. Also refer to your Disc case for more information.

- 1** Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select **Access control** in the second screen, then press **▶**. Access control will be highlighted.
- 3** Press **▶** again, then press the **Number** buttons to enter your **four-digit code**. Child lock will be highlighted.
- 4** Press **CH-▼** repeatedly to select **Change country**. Press **▶**.
- 5** Press **CH+▲** or **CH-▼** to select the country for which the Disc is coded, then press **OK**.





- 6** Press **SYSTEM MENU** to remove the menus.



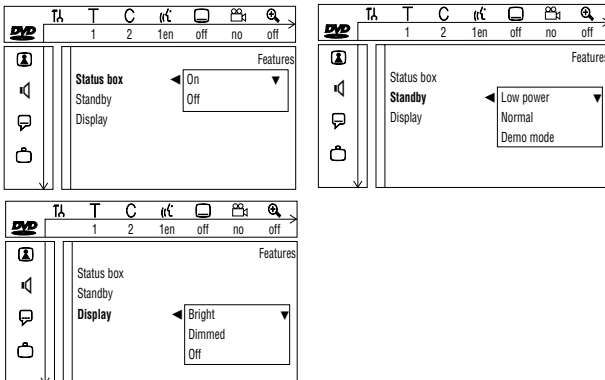
Helpful Hint

- Finalize disc will appear in this menu only when a non-finalized DVD+R is in the Recorder. See page 52.

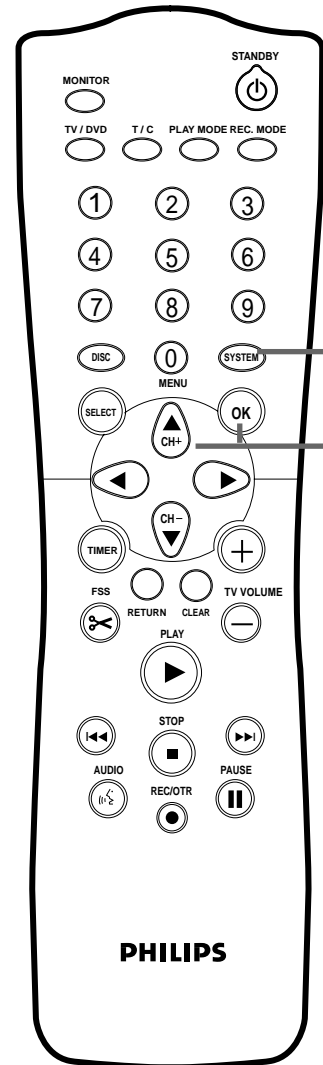
- 1 Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the Menu Bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select , then press **▶**.
- 3 Press **CH+▲** or **CH-▼** to select **Status box**, **Standby**, or **Display**. Press **▶** and follow step 4 according to your choice.
- 4
 - If you selected **Status box**, press **CH+▲** or **CH-▼** to choose **On** or **Off**, then press **OK**. The status box briefly displays the Disc type and status of the Recorder. Select **On** if you want to see the Status boxes. Choose **Off** if you do not want to see the Status boxes. See page 31.

- If you selected **Standby**, press **CH+▲** or **CH-▼** to choose **Low power**, **Normal**, or **Demo mode**, then press **OK**. Choose **Low power** if you do not want the clock to appear on the display panel when the power is off. Choose **Demo mode** if you want the Recorder's features to scroll across the display panel when the power is off. Or, choose **Normal** if you want the time to appear on the display panel when the power is off.

- If you selected **Display**, press **CH+▲** or **CH-▼** to choose **Bright**, **Dimmed**, or **Off**, then press **OK**. This adjusts the brightness of the display panel text on the front of the Recorder. Choose the brightness you prefer, or choose **Off** to see no information on the display panel.

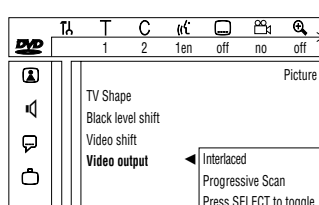
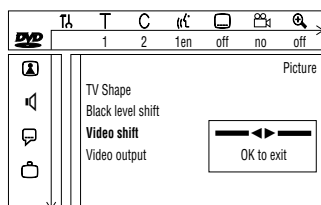
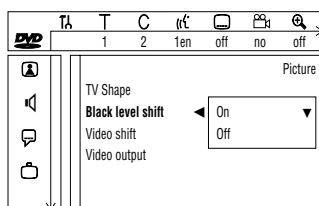
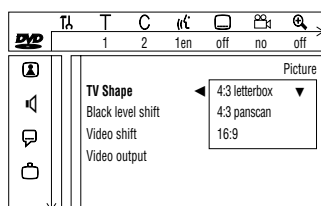


- 5 Press **SYSTEM MENU** repeatedly to remove the menus.

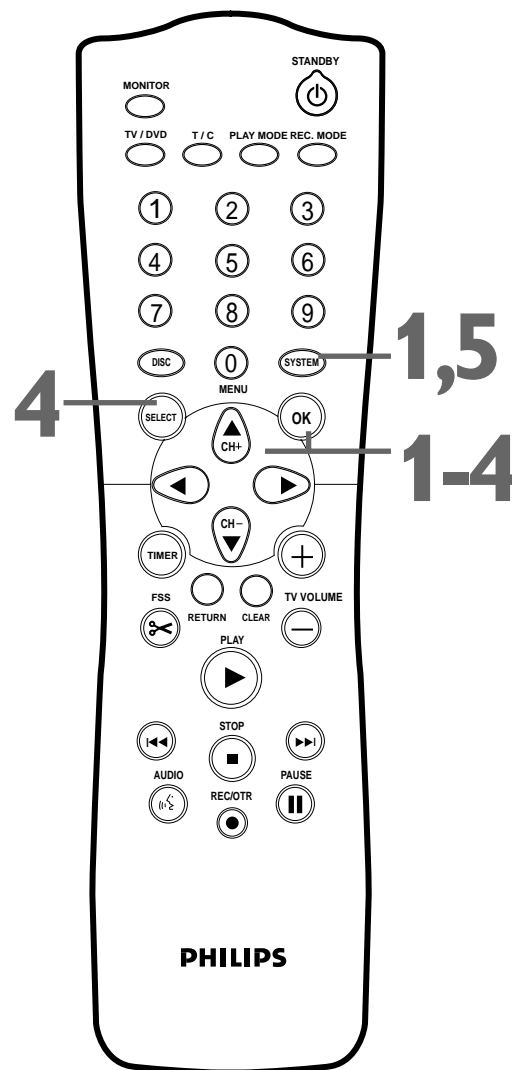


60 Picture Settings

- 1** Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** to select **Picture**, then press **▶**.
- 3** Press **CH+▲** or **CH-▼** to select **TV Shape**, **Black level shift**, **Video shift**, or **Video output**. Then, press **▶** and follow step 4 according to your choice.
- 4**
 - If you selected **TV Shape**, press **CH+▲** or **CH-▼** to select **4:3 letterbox**, **4:3 panscan**, or **16:9**, then press **OK**.
Select 4:3 letterbox if you want to see the widened picture with black bars at the top and bottom of the screen. This looks like the picture you see when watching movies in a theater. This setting is possible only if the DVD is recorded in letterbox or widescreen format.
 - If you selected **Black level shift**, press **CH+▲** or **CH-▼** to select **On** or **Off**, then press **OK**. Set Black level shift to On to improve the color contrast and brighten the picture of NTSC Discs.
 - If you selected **Video shift**, press **◀** or **▶** to center the picture horizontally on your TV screen - or "shift" the video. When you are satisfied with the position of the picture, press **OK**.
 - If you selected **Video output**, press **SELECT** repeatedly to choose **Interlaced** or **Progressive Scan**. Select Progressive Scan only if you used the COMPONENT VIDEO (Y Pb Pr) jacks on the Recorder to connect it to a TV that has Progressive Scan. See page 12. Otherwise, choose Interlaced.



- 5** Press **SYSTEM MENU** to remove the menus.

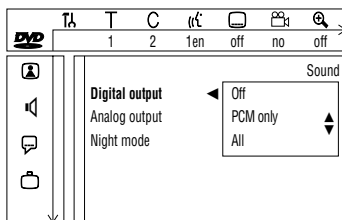


Helpful Hints

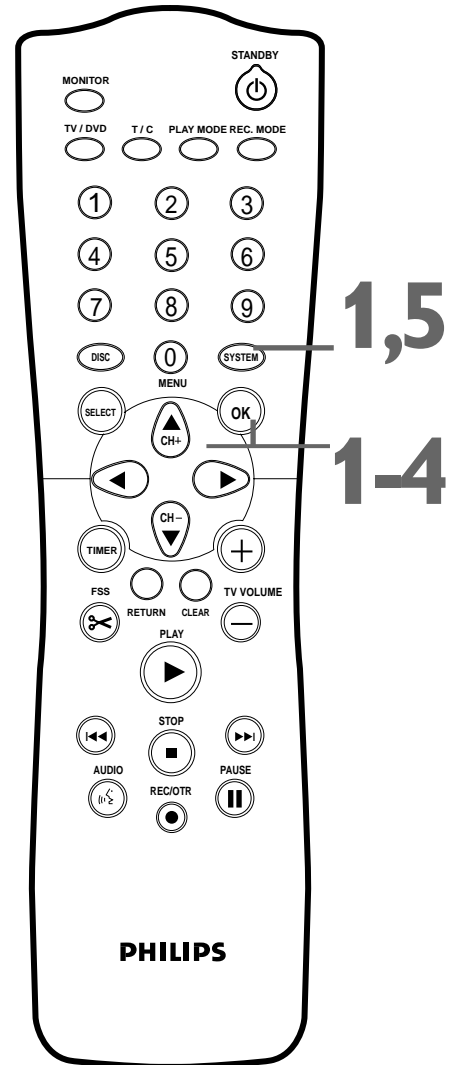
- The picture format you select must be on the Disc. If not, the settings for TV Shape will not affect the picture.
- Some widescreen TVs may show only part of the DVD Recorder's menu. Adjust the screen mode on your TV. See your TV owner's manual for details.

After connecting the Recorder to your TV and other equipment, you may need to change the Recorder's Digital Output setting. Look to see which Recorder audio jacks you connected to your other equipment, then set Digital Output accordingly. The information in step 4 will help you decide. Adjust Digital Output only if you used the Recorder's Coaxial DIGITAL AUDIO OUT jack. (If you used the white/red OUT AUDIO L/R jacks, set Digital Output to Off. See page 62 to adjust the sound at Analog Output.)

- 1** Press **SYSTEM MENU**. Press **◀** to select **T** in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select **◻**, then press **▶**.
- 3** Digital output will be selected. Press **▶**.
- 4** Press **CH+▲** or **CH-▼** to select **Off**, **PCM only**, or **All**, then press **OK**.
 - Select All if you connected the Recorder's Coaxial DIGITAL AUDIO OUT jack to a Stereo that has a built-in multi-channel decoder. See page 16.
 - Select Off if you did not use the Coaxial DIGITAL AUDIO OUT jack.
 - Select PCM only if you used the Recorder's Coaxial DIGITAL AUDIO OUT jack for connections, but your Stereo does not include a built-in digital multi-channel decoder. PCM represents Pulse Code Modulation.



- 5** Press **SYSTEM MENU** to remove the menus.

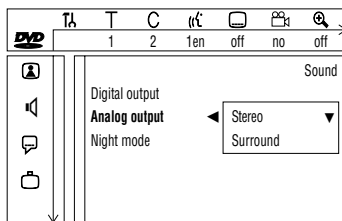


62 Analog Output

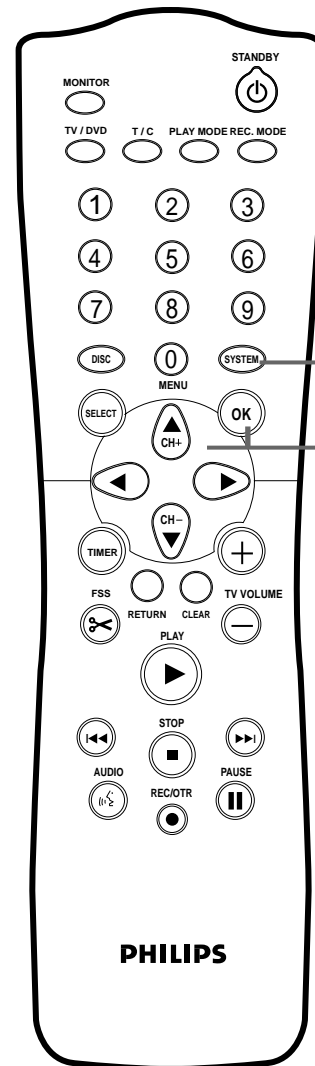
If you connected the Recorder's white/red OUT AUDIO L/R jacks to a Stereo or TV as shown on pages 12-15, choose a setting for Analog Output. You do not need to adjust this setting if you used the Recorder's Coaxial DIGITAL AUDIO OUT jack.

Check your Stereo or TV and see if it is compatible with Dolby Surround. Then follow the steps below to choose the Analog Output setting that is most compatible with your Stereo or TV.

- 1** Press **SYSTEM MENU**. Press **◀** to select **⏮** in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select **🔊**, then press **▶**.
- 3** Press **CH-▼** to select **Analog output**, then press **▶**.
- 4** Press **CH+▲** or **CH-▼** to select **Stereo** or **Surround**, then press **OK**.
 - Select **Stereo** to hear sound from the left and right audio channels if the DVD Recorder is connected to a Stereo TV.
 - Select **Surround** if your audio equipment is compatible with Dolby Surround. If it is, usually a Dolby Pro Logic logo will appear on the equipment.





- 5** Press **SYSTEM MENU** to remove the menus.

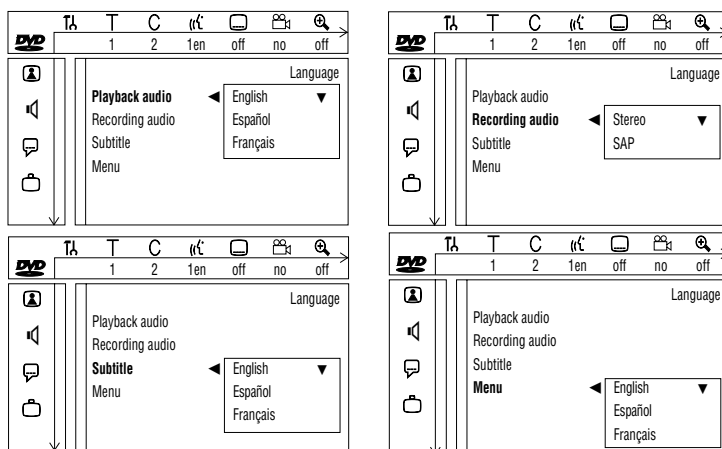
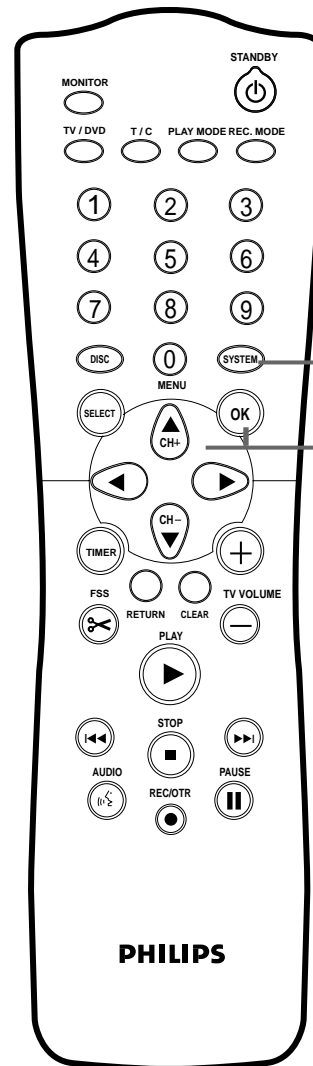


Helpful Hint

- You also can set analog sound in the Menu Bar. See page 37.

In the Language menu, select a different language for the Audio soundtrack or Subtitles of a DVD. Or, change the language of the DVD Recorder's System Menu. You also can determine whether you receive TV channels in Stereo or a Second Audio Program language by following these steps.

- 1** Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2** Press **CH-▼** repeatedly to select , then press **▶**.
- 3** Press **CH+▲** or **CH-▼** to select **Playback audio**, **Recording audio**, **Subtitle**, or **Menu**, then press **▶** and proceed as detailed in step 4.
- 4**
 - If you selected **Playback audio**, press **CH+▲** or **CH-▼** to select the language in which you want to play the Disc, then press **OK**. The changes will be effective only if the language is available on the Disc. Some DVDs allow you to change languages in the Disc Menu only.
 - If you selected **Recording audio**, press **CH+▲** or **CH-▼** to select **Stereo** or **SAP**, then press **OK**.
Some TV programs broadcast in stereo or in a second audio program (SAP). Usually, second audio means the program has a second language available. For example, the program might be available in English and Spanish, with Spanish being the SAP (second audio program) option. Your selection will only be active if the program is available in stereo or second audio. SAP will appear on the display panel when this feature is active and available.
When you play the recording, you can play only in the audio you recorded. For example, if you recorded in SAP, you can play the recording only in SAP.
 - If you selected **Subtitle**, press **CH+▲** or **CH-▼** to choose the language in which you want the Subtitles, then press **OK**. The subtitles will be in that language if available on the Disc.
 - If you selected **Menu**, press **CH+▲** or **CH-▼** to choose **English**, **Espanol (Spanish)**, or **Français (French)**, then press **OK**. This adjusts the language of the Recorder's System Menu, which is available only in these three languages.



- 5** Press **SYSTEM MENU** to remove the menus.



Helpful Hint

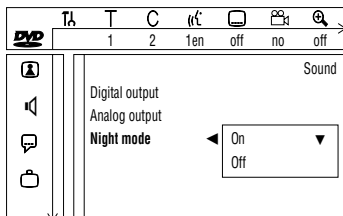
- If Recording audio is set to SAP and you record a TV program that is available only in Stereo, the Recorder will record the program in Stereo.

64 Night Mode, Remote Control Used

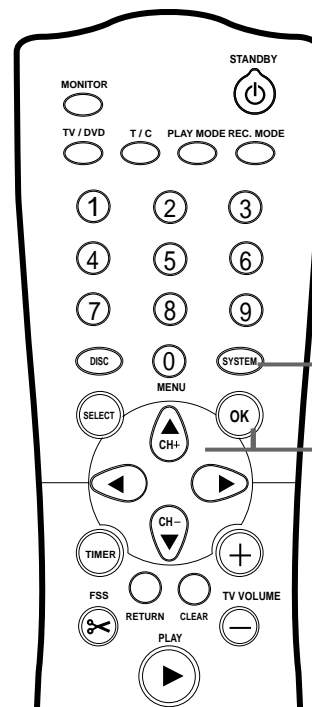
Night Mode

Turn on Night Mode to improve the sound during low volume playback.



- 1 Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select , then press **▶**.
- 3 Press **CH-▼** repeatedly to select **Night mode**, then press **▶**.

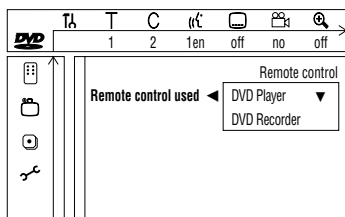


- 4 Press **CH+▲** or **CH-▼** to select **On** or **Off**, then press **OK**.
- 5 Press **SYSTEM MENU** to remove the menus.

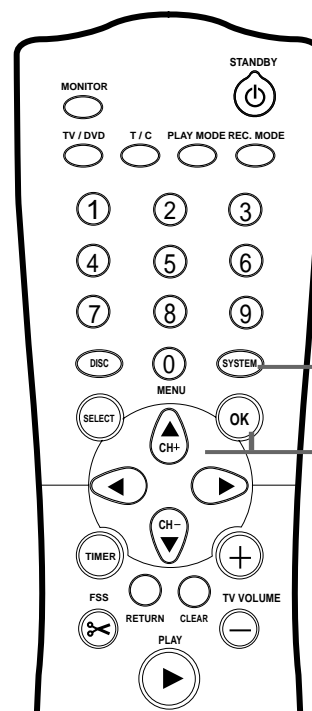


Remote Control Used

- 1 Press **SYSTEM MENU**. Press **◀** to select  in the top left corner of the menu bar at the top of the TV screen.
- 2 Press **CH-▼** repeatedly to select  in the next menu, then press **▶**.
- 3 Remote control used will be highlighted. Press **▶**.
- 4 Press **CH+▲** or **CH-▼** to select **DVD Player** or **DVD Recorder**, then press **OK**. The factory setting is DVD Recorder. By selecting DVD Recorder, you choose to operate the Recorder with its supplied remote control (as shown at right and throughout this book). If you have a Philips DVD Player and want to use its remote for the Recorder, select DVD Player. You might not access all the Recorder's features unless you use the Recorder's remote.



- 5 Press **SYSTEM MENU** to remove the menus.



AC-3: Audio Coding 3, also known as Dolby Digital; a multi-channel digital audio compression system from Dolby Labs.

Analog: Sound that has not been turned into numbers. Analog sound varies, while digital sound has specific numerical values. Analog sound is available when you use the red and white audio jacks on your equipment. These jacks send audio through two channels, the left and right.

AUDIO Jacks: Red and white jacks that send audio to other equipment (TV, Stereo, etc.) (OUT) or receive sound from other equipment (IN).

Coaxial DIGITAL AUDIO OUT jack: Sends digital audio to a Stereo, letting you adjust the volume at the Stereo. The Stereo must have a Coaxial In jack. This connection provides the 5.1 channel surround sound as heard in movie theaters.

Color system: There are various systems for transmitting television signals or a DVD picture, for example PAL, SECAM, and NTSC. NTSC is the most common color system in the United States of America. The Recorder automatically selects the correct color system of DVDs.

COMPONENT VIDEO Jacks: The OUT jacks send high-quality video to a TV that has Component Video In jacks. The IN jacks allow the Recorder to receive high-quality video from other equipment, such as a DVD Player. The OUT jacks are also compatible with Progressive Scan (if your TV has Progressive Scan).

Digital: Sound that has been converted into numerical values. Digital sound is available when you use the Coaxial DIGITAL AUDIO OUT jack on the Recorder. Sound is distributed through multiple channels.

Digital Video or i.LINK: Also known as 'FireWire' and 'IEEE 1394.' A cable for transfer of high bandwidth digital signals as used by Digital Video camcorders or some Personal Computers.

Dolby Digital: A surround sound system that provides 5.1 channel sound as used in movie theaters.

DTS: Digital Theater Systems. This is a surround sound system, but it is different from Dolby Digital. The formats were developed by different companies.

DVD+R: DVD+Recordable. These Discs can be recorded and finalized only once.

DVD+RW: DVD+ReWritable. These Discs can be recorded on repeatedly.

Index Picture Screen: A screen that gives an overview of a DVD+RW or DVD+R. An Index Picture represents each recording.

Letterbox: Widescreen format; a TV aspect ratio setting (4:3). Displays the video in full-width, with black bars at the top and bottom of the TV screen. This format is similar to seeing a movie in a theater. If the Disc does not include a letterbox format, selecting 4:3 letterbox may have no effect. (For example, some DVDs are two-sided, with one side playing in widescreen format and the other side playing in a normal format.)

MPEG: Motion Picture Experts Group. A collection of compression systems for digital audio and video.

OTR: One-Touch Recording. Start a timed recording by pushing just one button; select the switch-off time in intervals of 30 minutes.

Pan & Scan: A TV aspect ratio setting (4:3). Displays the video with full-height picture, with one or both sides of the picture trimmed to fit on your TV screen. Some movie companies refer to this as "reformatting the picture to fit your TV screen."

PBC: Playback Control. A special feature on a Video CD or Super VCD that enables interactive use.

PBS: Public Broadcast System. The PBS channel transmits data for Automatic clock setting.

PCM: Pulse Code Modulation. A digital audio encoding system.

RGB: Red-Green-Blue. A top-quality video connection where red, green and blue components of a video signal are carried through separate wires. This also is referred to as the component video connection.

S-Video: Produces a clearer picture by sending separate signals for the luminance and the color.

VCD: Video Compact Disc. Similar to DVDs, but hold a smaller amount of recording.

VCR Plus+ System: Allows you to set a timer recording by entering a PlusCode number found in participating TV listings.


VIDEO Jacks: Yellow jacks that send picture to your TV (OUT) or receive video from other equipment (IN) (Camcorder, VCR, DVD Player, etc.).

Widescreen: A TV aspect ratio setting (16:9). Displays the video appropriately when you connect the DVD Recorder to a widescreen TV.



66 Helpful Hints

If you are having problems with your product, check this list of problems and possible solutions before requesting service. You may be able to solve the problem yourself.

No power

- Press STANDBY-ON  on the front of the DVD Recorder to turn on the DVD Recorder.
- Connect the supplied power cord securely to the MAINS (AC power) jack on the rear of the DVD Recorder. Connect the power cord firmly to an AC power outlet. Use only the supplied power cord.
- Make sure the AC outlet has power by trying another appliance in the same outlet.

The buttons on the DVD Recorder do not work.

- The Recorder may be in Dealer mode. Disconnect the power cord from the power outlet. Press and hold Stop  and OPEN/CLOSE  on the front of the Recorder while you reconnect the power cord to power. When the time or --:-- appears on the display panel (within 6-10 seconds), release the buttons.

No picture

- Make sure the TV power is on.
- Check the video cables. Make sure the cable(s) are fastened securely to the Recorder and the TV.
- Set your TV to the correct Video In channel. These channels are usually near channel zero (0). Or, you may have a button on the TV remote control that selects an Auxiliary or A/V IN channel. See your TV owner's manual for details. Or, go to your lowest TV channel and change channels down until you see the Recorder's background picture on the TV screen.
- You only need one video connection between the DVD Recorder and the TV. See page 9.

The picture is distorted; the picture is black and white during playback.

- TVs have a color system standard, usually NTSC in the United States. If the Disc's color system is different than your TV's color system, the picture may be distorted or colorless.
- The Recorder cannot record in color if the TV channel or source is not providing color. In some situations, programs that are broadcast in black and white cannot be recorded.
- Check the Disc for fingerprints. Clean the Disc with a soft cloth, wiping from the center to the edge in a straight line.
- Sometimes a small amount of picture distortion may appear. This is not a malfunction.
- If you set Record mode to a low-quality speed, change to a higher-quality speed after you finish recording. Leaving the Recorder set to a low-quality speed may affect the picture quality when playing DVDs later. See page 49.



The sound is distorted during Disc playback through a Stereo.

- Do not connect any cables from the DVD Recorder to the Stereo's "PHONO IN" jack.
- Do not connect the Recorder's Coaxial DIGITAL AUDIO OUT jack to an analog jack (red or white) on the Stereo.

No sound

- Check the audio connections. See pages 9-16. Remember, you only need one audio connection. See page 9 to see what connection best suits your situation.
- Make sure cables are connected firmly to all equipment.
- Select another channel, sound source, or Auxiliary station at your Stereo or TV. See your Stereo's manual or TV's manual for details. Or, just continue selecting the different sound sources or modes on the Stereo or TV until you hear sound from the Disc that is in the DVD Recorder. See pages 9-16.
- Set Analog output or Digital output correctly, based on what equipment you connected to the Recorder. See pages 61-62.
- You cannot hear MP3 play if you are using the Coaxial DIGITAL AUDIO OUT jack for sound from the Recorder.
- Change the Audio setting of the DVD in the DVD Disc Menu.

A Disc recorded on this DVD Recorder will not play on a DVD Player.

- In some cases, you can adapt the Disc at the DVD Recorder, then try it again in the Player. This procedure does not solve the playability problem with all brands of Players. Furthermore, it may make the Disc incompatible with Players with which the Disc was compatible before you modified the Disc.
To modify a Disc, place the Disc in the DVD Recorder's disc tray. Do not close the tray. Then, press and hold the Number 2 button on the remote control until the tray closes. The Disc is now modified. Try it on the other Player.
If the Disc still will not play on the Player, repeat this procedure, but press and hold the Number 3 button instead until the Recorder's tray closes.
To return the Disc to its original version, repeat this process using the Number 1 button.
- To adapt a Disc that was recorded on a different DVD Recorder, stop Disc play. Make sure the Disc Menu or INFO is not on the screen. Press Record . The following message will appear: "Disc has different menu. If you record on this disc the menu will be replaced. Press OK to open tray or press REC to replace menu." Press Record . The "replacing menu" message will appear. When that is finished, the Disc Information Screen will appear. Some information may be missing, for example the recording mode.
- To play a DVD+R on another DVD Player, finalize the Disc first. See pages 50 or 52.

An Audio CD will not play on the DVD Recorder.

- Some Audio CDs available on the market are copy protected. This DVD Recorder may not play such copy-protected discs.



The DVD Recorder will not select some features, such as Angles, Subtitles, or multi-language Audio.

- The feature may not be available on the Disc. If it is not, an "X" will appear on the TV screen. Check the Disc case to see if the Disc has the feature. If the Disc does not have the feature, the Recorder cannot create the feature. This is not a malfunction of the Recorder.

Disc will not play.

- Make sure the Disc label is facing up. If you are playing a two-sided Disc, make sure the label of the side you want to play is facing up. See page 20.
- Check the Access Control settings for the Disc. See pages 54-58.
- Check the Region Code of the DVD. The DVD must be coded for All regions or Region 1 in order to play on this DVD Recorder. See page 7.
- See if the Disc is defective by trying another Disc. Make sure the Disc is not scratched or warped. Carefully clean the Disc. See page 6.


The DVD Recorder does not respond to the remote control.

- Aim the remote directly at the sensor on the front of the DVD Recorder (not toward your TV). See page 24.
- Remove any obstacles between the DVD Recorder and the remote control.
- Inspect or replace the batteries in the remote control. See page 8.
- Make sure you selected DVD Recorder as the Remote control used. See page 64.
- The  symbol will appear briefly on the display panel each time the Recorder receives a signal from the remote. If  appears, the remote signal is reaching the Recorder correctly.




Recordings are not occurring as scheduled. New recordings cannot be made.

- See if the Disc has the maximum number of titles. Delete some recordings (DVD+RW only). See page 47.
- You can record only if the Disc is Unprotected. You cannot use a write-protected or finalized Disc. See page 50.
- You cannot duplicate copyrighted DVDs, videotapes, or TV broadcasts using the Recorder. "COPY PROTECT" may appear on the display panel if you try to dub or record copyrighted material onto a DVD+R or DVD+RW using the Recorder.
- The signal from your Antenna/Cable TV system must be strong enough to provide good channel reception. If the signal is weak, if there is no signal, or if a channel has gone off the air, a recording will not occur.
- Check the Disc. If the Disc is bad (scratched, warped, etc.) or if the Recorder cannot read the Disc, you cannot record. "NO DISC" may appear on the display.
- A timer recording may not occur if the power fails during the time the recording was supposed to occur.
- If you adjust the clock after you set a timer recording, reset the timer recording.


Another DVD Player shows the Index Picture Screen but does not react to PLAY ►.

- Press STOP  to exit the Index Picture Screen, then press PLAY ►.

You need to access system information for service reasons.

- Press SYSTEM MENU.  may be selected. If it is not, press  to select it. Press CH-▼ repeatedly to select , then press ►. Press ▼ until the system information appears.

The DVD Recorder does not work.

- The DVD Recorder will not operate until you complete the Initial Setup. See pages 18-19.
- Disconnect the power cord from the Recorder and the power outlet for a few minutes. Reconnect the power cord and try to operate the Recorder again as usual.
If the Recorder still will not operate, disconnect the power cord from the Recorder again. Then, while pressing and holding the STANDBY-ON  button on the front of the Recorder, reconnect the power cord. This resets the DVD Recorder to the factory mode. Complete the Initial Setup again and reset any items you have adjusted during your use of the Recorder.

Messages or strange codes appear on the Recorder's display.

- Remove and reinsert the Disc.
- Clean the Disc.
- Disconnect the power cord from the power outlet, then reconnect the cord and try play as usual.
- During Initial Setup, "IS TV ON? CO3" will appear on the Recorder's display panel. This appears in addition to the Initial Setup information that shows on your TV screen. (Initial Setup information is on pages 18-19.) "IS TV ON? CO3" indicates you should turn on your TV and set it to the correct Video In channel or channel 3. See pages 9-16 to determine the correct Video In channel for your connection. Or, see your TV manual for details.
- There are error messages that apply to recording problems. See page 45.

All of the DVD Recorder's system menu is not visible.

- Certain TVs may not show the entire system menu on the TV screen. If the upper or top portion of the Recorder's system menu does not appear properly, this is a TV-related issue. It is not an improper functioning of the Recorder.

68 Diagnostic Test

If you are still having trouble with the Recorder after checking Helpful Hints and other information in this manual, you may perform a Diagnostic Test on the Recorder. Follow the steps below.

- 1** **Disconnect the power cord from the Recorder's MAINS (AC Power) jack on the rear of the Recorder.**
- 2** **Press and hold the Play ► button on the front of the Recorder while you reconnect the power cord to the Recorder.** "BUSY" will appear on the display panel, along with a counter number. **Release Play ►.** The counter will reach zero (0) when the test is finished.
- 3** Momentarily, "FAIL" or "PASS" will appear on the display panel.
If "FAIL" appears, your Recorder needs repair. Contact the Philips Customer Care Center for the Authorized Service Center nearest you.
If "PASS" appears, the Recorder apparently has no failure. The problem may be incorrect interpretation of the operating instructions, a wrong Disc in use, or incorrect connections. Contact the Philips Customer Care Center for further assistance in solving the problem.
- 4** If there is no failure, disconnect the power cord again, then reconnect it to the Recorder and an AC power outlet. The DVD Recorder will be ready for regular use.

DISC FORMATS SUPPORTED

Disc type	Playback	Recording
DVD+RW	•	•
DVD+R	•	•
DVD-RW (Video format)	•	—
DVD-R	•	—
DVD-Video	•	—
SVCD	•	—
Video CD	•	—
Audio CD	•	—
CD-R	•	—
CD-RW	•	—

DVD+REWRITABLE DISC FORMAT

Medium	Phase-Change ReWritable	
Diameter	12 cm	
Capacity (single side)	4.7 Gbyte	
Recording time	M1	1 hour
	M2x	2.5 hours
	M4	4 hours
	M6	6 hours

TV STANDARD

	PAL/SECAM	NTSC
Scan Frequency	50Hz	60Hz
Number of lines	625	525
Playback	•	•
Recording	•	•
Internal tuner	—	•

VIDEO FORMAT

Digital Compression	MPEG2 for DVD MPEG1 for VCD
---------------------	--------------------------------

VIDEO RESOLUTION

	50Hz	60Hz
DVD-Video/ DVD+RW(HQ/SP)		
• Horiz.Resolution	720 pixels ¹	720 pixels ¹
• Vertical Resolution	576 lines	480 lines
DVD+RW (LP/EP)		
• Horiz.Resolution	360 pixels ²	360 pixels ²
• Vertical Resolution	576 lines	480 lines
VCD		
• Horiz.Resolution	352 pixels	352 pixels
• Vertical Resolution	288 lines	240 lines

¹ equivalent to 500 lines on your TV

² equivalent to 250 lines on your TV

VIDEO PERFORMANCE

DA Converter	10-bit
AD Converter	9-bit
Signal handling	Components
Video Out	1 Vpp into 75 Ohm
S-Video Out	Y: 1 Vpp into 75 Ohm C: 0.300 Vpp into 75 Ohm
Component Video/ Progressive Scan Out	Y: 1 Vpp into 75 Ohm Pb: 0.7 Vpp into 75 Ohm Pr: 0.7 Vpp into 75 Ohm

CABINET

Dimensions (w x h x d): 17 x 3 x 13 inches
Net weight: 8.8 lbs.

AUDIO FORMAT

	Play	Recording
Compressed digital	Multi-channel	2-channel
• Dolby Digital (AC-3)		16 bit, fs 48 kHz
• DTS	Multi-channel	—
• MPEG1	2-channel	—
• MPEG2	Multi-channel	—

Uncompressed digital (SPDIF - Sony Philips Digital Interface)
• PCM 2-channel —
16, 20, 24 bit
fs 48, 96 kHz

AUDIO PERFORMANCE

DA Converter	24 bit
AD Converter	16 bit
DVD	fs 96 kHz 4 Hz -44 kHz fs 48 kHz 4 Hz -22 kHz
Video CD	fs 44.1 kHz 4 Hz -20 kHz
Audio CD	fs 44.1 kHz 4 Hz -20 kHz
Signal-Noise (1kHz)	105 dB
Dynamic Range (1kHz)	100 dB
Crosstalk (1kHz)	110 dB
Distortion/Noise (1kHz)	90 dB

FRONT CONNECTIONS

DV (Digital Video) In	IEEE 1394 4-pin
S-Video In	Hosiden 4-pin
Video In	Cinch (yellow)
Audio Left/Right In	Cinch (white/red)

REAR CONNECTIONS

Component Video In	Cinch (green/blue/red)
Component Video Out	Cinch (green/blue/red)
S-Video In	Hosiden 4-pin
S-Video Out	Hosiden 4-pin
Video In	Cinch (yellow)
Video Out	Cinch (yellow)
Audio L/R In (2x)	Cinch (white/red)
Audio L/R Out (2x)	Cinch (white/red)
Digital Audio Out	1 coaxial IEC958 for CDDA /LPCM IEC1937 for MPEG2, Dolby Digital
RF Antenna In	Coaxial 75 ohms
RF TV Out	Coaxial 75 ohms
Power	Standard (IEC type)

POWER SUPPLY

AC power	polarized (IEC)
Power supply	100 -120V AC 50/60 Hz
Power consumption	Operation 29 W Low-power standby 3 W

70 Limited Warranty

DVD Recorder

One year Free Labor / One year Parts Exchange

This product must be carried in for repair.

WHO IS COVERED?

You must have proof of purchase to receive warranty service. A sales receipt or other document showing that you purchased the product is considered proof of purchase.

WHAT IS COVERED?

Warranty coverage begins the day you buy your product. *For one year thereafter*, all parts will be repaired or replaced, and labor is free. *After one year from the day of purchase*, you pay for the replacement or repair of all parts, and for all labor charges.

All parts, including repaired and replaced parts, are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

WHAT IS EXCLUDED?

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 misuse, accident, unauthorized repair or other cause not within the control of Philips.
- reception problems caused by signal conditions or cable or antenna systems outside the unit.
- 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.
- incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)
- a product that is used for commercial or institutional purposes (including but not limited to rental purposes).

WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips. In countries where Philips does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to the owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

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

Take the product to a Philips factory service center (see enclosed list) or authorized service center for repair. When the product has been repaired, you must pick up the unit at the center. Centers may keep defective parts. (In U.S.A., Puerto Rico, and U.S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. Because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

TO GET WARRANTY SERVICE IN CANADA...

Please contact Philips at:

1-800-661-6162 (French Speaking)

1-800-531-0039 (English or Spanish Speaking)

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of such damages.)

REMEMBER...

Please record below the model and serial numbers found on the product. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _____

SERIAL # _____

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

Philips, P.O. Box 520890, Miami, FL 33152 (402) 536-4171

EL6506E003 / 09-02

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