

SONY

3-083-946-11 (1) US

DVD Player/ Video Cassette Recorder

Operating Instructions

For customers in the USA

If you have any questions about your Sony DVD-VCR, you may call **Sony Customer Information Services Company** at 1-800-VHS-SONY (847-7669).

For all other Sony product questions, please call **Sony Customer Information Services Company** at 1-800-222-SONY (7669).

Or write to: **Sony Customer Information Services Company** 12451 Gateway Boulevard Ft. Myers, FL 33913

For Customers in Canada

If this product is not working properly, please call 1-877-602-2008 for **Peace of Mind Warranty Replacement service**.

For other product related questions please contact our **Customer Information Service Center** at 1-877-899-7669 or write to us at: Customer Information Service 115 Gordon Baker Road, Toronto, Ontario, M2H 3R6



Hi-Fi



SLV-D500P



© 2003 Sony Corporation

WARNING

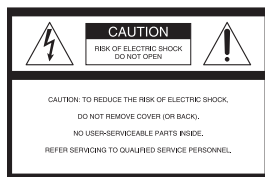
To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

CAUTION

The use of optical instruments with this product will increase eye hazard. As the laser beam used in this DVD player is harmful to eyes, do not attempt to disassemble the cabinet.

Refer servicing to qualified personnel only.

USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

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

For customers in the U.S.A. Owner's Record

The model and serial numbers are located at the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. SLV-D500P

Serial No. _____

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note

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

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

Welcome!

Thank you for purchasing this Sony DVD Player/Video Cassette Recorder. Before operating this player, please read this manual thoroughly and retain it for future reference.

General Precautions

- Operate the unit only on 120 V AC, 60 Hz.
- This unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the unit from the wall outlet if you do not intend to use it for an extended period of time. To disconnect the cord, pull it out by the plug, never by the cord.
- If the unit is brought directly from a cold to a warm location, moisture may condense inside the unit and cause damage to the video head and tape. When you first install the unit, or when you move it from a cold to a warm location, wait for about three hours before operating the unit.
- Do not install the unit in an inclined position. It is designed to be operated in a horizontal position only.
- Keep the unit and cassettes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place heavy objects on the unit.

Important Safety Instructions

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

DVD Precautions

On safety

- Caution – The use of optical instruments with this product will increase eye hazard.
- To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.
- Should any solid object or liquid fall into the cabinet, unplug the player and have it checked by qualified personnel before operating it any further.

On operation

- If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the player. Should this occur, the player may not operate properly. In this case, remove the disc and leave the player turned on for about half an hour until the moisture evaporates.
- When you move the player, take out any discs. If you don't, the disc may be damaged.

On adjusting volume when playing DVD

Do not turn up the volume while listening to a section with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level section is played.

On cleaning discs

Do not use a commercially available cleaning disc. It may cause a malfunction.

IMPORTANT NOTICE

Caution: This player is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are especially susceptible to this.

Table of contents

- 2 WARNING
- 2 Welcome!
- 2 General Precautions
- 3 Important Safety Instructions
- 3 DVD Precautions
- 6 About this manual
- 6 This player can play the following discs
- 7 Notes about discs

Getting Started

- 8 Step 1 : Unpacking
- 9 Step 2 : Setting up the remote commander
- 12 Step 3 : Basic hookups
- 19 Step 4 : Selecting a language
- 20 Step 5 : Setting the clock
- 24 Step 6 : Presetting channels
- 28 Step 7 : Setting up the VCR Plus+® system

Basic Operations

- 31 Playing discs
- 34 Guide to the on-screen display
- 36 Playing a tape
- 39 Recording TV programs
- 42 Recording TV programs using the timer
- 45 Recording TV programs using the Dial Timer
- 50 Recording TV programs using the VCR Plus+® system
- 53 Checking/changing/canceling timer settings

Advanced Hookups

- 55 A/V Receiver hookup
- 57 S-Video/Component Video hookup

DVD Settings and Adjustments

- 59 Audio Setup
- 62 Screen Setup
- 65 Setting the display or sound track language
- 67 Parental Control (limiting playback by children)

DVD Additional Operations

- 70 Using the DVD's menu
- 71 Zooming into a scene
- 72 Changing the angles
- 73 Displaying the subtitle
- 74 Various play mode functions (Program play, Shuffle play, Repeat play)
- 78 Using bookmarks

- 80** Changing the sound
- 81** Virtual surround setting
- 83** Playing an MP3 audio track
- 87** Playing JPEG image files
- 90** Playing VIDEO CDs with “MENU
ON/OFF” Functions

VCR Additional Operations

- 92** Quick Timer Recording
- 93** Recording stereo and bilingual
programs
- 94** Searching using various functions
- 96** Adjusting the picture (tracking)
- 97** Changing menu options
- 98** Editing with another VCR

Additional Information

- 100** General setup information
- 103** Troubleshooting
- 108** Glossary
- 110** Specifications
- 112** Index to parts and controls
- 117** DVD Audio/Subtitle Language
- 118** Index

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

Caution

For use of the VCR






Television programs, films, video tapes and
other materials may be copyrighted.
Unauthorized recording of such material may
be contrary to the provisions of the copyright
laws. Also, use of this recorder with cable
television transmission may require
authorization from the cable television
transmission and/or program owner.

For use of the DVD player

This product incorporates copyright
protection technology that is protected by
method claims of certain U.S. patents, 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.




About this manual

- The meaning of the icons used in this manual is described below:

Icon	Meaning
	Functions available for DVD VIDEOS and DVD-RWs/ DVD-Rs in video mode or DVD+RWs/DVD+Rs
	Functions available for VIDEO CDs, Super VCDs or CD-Rs/ CD-RWs in video CD format or Super VCD format
	Functions available for DATA CDs (CD-ROMs/CD-Rs/CD-RWs containing MP3* audio tracks or JPEG files)
	Functions available for music CDs or CD-Rs/CD-RWs in music CD format
	Functions available for VHS VIDEOS

* MP3 (MPEG 1 Audio Layer 3) is a standard format defined by ISO/MPEG which compresses audio data.


This player can play the following discs

Format of discs	
DVD VIDEO	
VIDEO CD	
Music CD	

The "DVD VIDEO" logo is a trademark.

Region code

Your player has a region code printed on the back of the unit and only will play DVD VIDEO discs (playback only) labeled with identical region codes. This system is used to protect copyrights.

DVDs labeled  will also play on this player.

If you try to play any other DVD, the message "Playback prohibited by area limitations." will appear on the TV screen. Depending on the DVD, no region code indication may be labeled even though playing the DVD is prohibited by area restrictions.



Region code

Example of discs that the player cannot play

The player cannot play the following discs:

- All CD-ROMs (including PHOTO CDs)/CD-Rs/CD-RWs other than those recorded in the following formats:
 - music CD format
 - video CD format
 - MP3 or JPEG format that conforms to ISO9660* Level 1/Level 2, or its extended format, Joliet
 - Data part of CD-Extras
 - DVD-RWs in VR mode
 - DVD-ROMs
 - DVD Audio discs
 - HD layer on Super Audio CDs
- * A logical format of files and folders on CD-ROMs, defined by ISO (International Standard Organization).

Also, the player cannot play the following discs:

- A DVD with a different region code.
- A disc recorded in a color system other than NTSC, such as PAL or SECAM (this player conforms to the NTSC color system).
- A disc that has a non-standard shape (e.g., card, heart).
- A disc with paper or stickers on it.
- A disc that has the adhesive of cellophane tape or a sticker still left on it.

Note

Some DVD-RWs/DVD-Rs, DVD+RWs/DVD+Rs or CD-Rs/CD-RWs cannot be played on this player due to the recording quality or physical condition of the disc, or the characteristics of the recording device. Furthermore, the disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device. Note that discs created in the Packet Write format cannot be played.

Note on playback operations of DVDs and VIDEO CDs

Some playback operations of DVDs and VIDEO CDs may be intentionally set by software producers. Since this player plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the DVDs or VIDEO CDs.

Music discs encoded with copyright protection technologies

This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product.

Notes about discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.



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



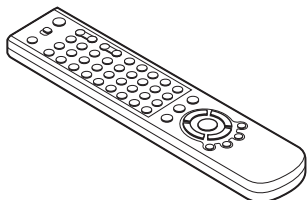
Do not use solvents such as benzene, thinner, commercially available cleaners, or anti-static spray intended for vinyl LPs.

Getting Started

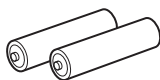
Step 1 : Unpacking

Check that you have received the following items with the DVD-VCR:

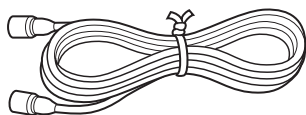
- Remote commander



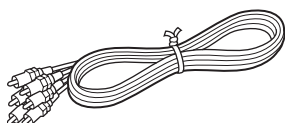
- Size AA (R6) batteries



- 75-ohm coaxial cable with F-type connectors



- Audio/video cord
(pinplug ×3 ↔ pinplug ×3)



Step 2 : Setting up the remote commander

Inserting the batteries

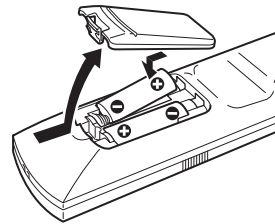
Insert two size AA (R6) batteries by matching the + and – on the batteries to the diagram inside the battery compartment.

Insert the negative (–) end first, then push in and down until the positive (+) end clicks into position.

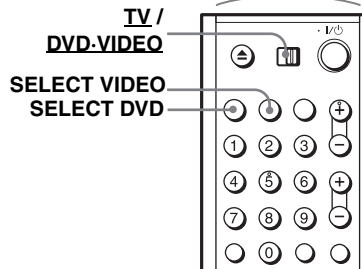
Using the remote commander

You can use this remote commander to operate this DVD-VCR and a Sony TV. Buttons on the remote commander marked with an orange dot (•) can be used to operate your Sony TV.

If the TV does not have the **R** symbol near the remote sensor, this remote commander will not operate the TV.



Remote sensor



To operate	Set <u>TV / DVD-VIDEO</u> to
the DVD player	<u>DVD-VIDEO</u> , then press SELECT DVD and point at the remote sensor at the DVD-VCR
the VCR	<u>DVD-VIDEO</u> , then press SELECT VIDEO and point at the remote sensor at the DVD-VCR
your TV	<u>TV</u> and point at the remote sensor at your TV

Notes

- With normal use, the batteries should last about three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery with an old one.
- Do not use different types of batteries.
- Do not leave the remote commander in an extremely hot or humid place.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not expose the remote sensor to direct light from the sun or lighting apparatus. Doing so may cause a malfunction.

continued

Controlling other TVs with the remote commander

The remote commander is preprogramed to control non-Sony TVs. If your TV is listed in the following table, set the appropriate manufacturer's code number.

- 1** Set **TV** / **DVD-VIDEO** at the top of the remote commander to **TV**.
- 2** Hold down **I/**, and enter your TV's code number using the number buttons. Then release **I/**.

Now you can use the **I/**, **VOL +/-**, **CH +/-**, **MUTING***, **TV/VIDEO** and **ENTER*** buttons to control your TV. You can also use the buttons marked with a dot (•) to control a Sony TV. To control the DVD-VCR, reset **TV** / **DVD-VIDEO** to **DVD-VIDEO**.

* for Sony TV only

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

TV brand	Code number
Sony	01
Akai	04
AOC	04
Centurion	12
Coronado	03
Curtis-Mathes	12
Daytron	12
Emerson	03, 04, 14
Fisher	11
General Electric	06, 10
Gold Star	03, 04, 17
Hitachi	02, 03
J.C.Penney	04, 12
JVC	09
KMC	03
Magnavox	03, 08, 12
Marantz	04, 13
MGA/Mitsubishi	04, 12, 13, 17
NEC	04, 12

TV brand	Code number
Panasonic	06, 19
Philco	03, 04
Philips	08
Pioneer	16
Portland	03
Quasar	06, 18
Radio Shack	05, 14
RCA	04, 10
Sampo	12
Sanyo	11
Scott	12
Sears	07, 10, 11
Sharp	03, 05, 18
Sylvania	08, 12
Teknika	03, 08, 14
Toshiba	07
Wards	03, 04, 12
Yorx	12
Zenith	15

Notes

- If you enter a new code number, the code number previously entered will be erased.
- If the TV uses a different remote control system from the one programed to work with the DVD-VCR, you cannot control your TV with the remote commander.
- When you replace the batteries of the remote commander, the code number may change. Set the appropriate code number every time you replace the batteries.

Getting Started

Step 3 : Basic hookups

Before you get started

- Be sure to disconnect the AC power cord of each component before connecting.
- Turn off the power to all equipment.
- Do not connect the AC power cords until all of the connections are completed. If you connect the AC power cord before the connections are completed, you may not be able to use the Plug and Play function.
- Be sure you make connections firmly. Loose connections may cause picture distortion.
- If your TV does not match any of the examples provided, see your nearest Sony dealer or qualified technician.

Selecting the best hookup option

There are many ways in which your DVD-VCR can be hooked up. To hook up your DVD-VCR so that it works best for you, first scan through the table below. Then use the accompanying diagrams and procedures on the following pages to set up your DVD-VCR.

If your TV has audio/video inputs, refer to page 13 for audio/video (A/V) hookup. Then follow one of the hookups below. If your TV does not have A/V inputs, go directly to one of the hookups below.

If you have	Use	Refer to
Antenna only, no cable TV	Hookup 1 (Plug and Play)	Pages 14 and 15
No cable box or cable box with only a few scrambled channels	Hookup 2 (Plug and Play)	Pages 16 and 17
Cable box with many scrambled channels	Hookup 3	Page 18

After you have completed the connections, follow the instructions for setup.

After you have completed the setup, you are ready to use your DVD-VCR. Procedures differ depending on the hookup you used.

Caution

Connections between the DVD-VCR's VHF/UHF connector and the antenna terminals of the TV receiver should be made only as shown in the following instructions. Failure to do so may result in operation that violates the regulations of the Federal Communications Commission regarding the use and operation of RF devices. Never connect the output of the DVD-VCR to an antenna or make simultaneous (parallel) antenna and DVD-VCR connections at the antenna terminals of your receiver.

Note to CATV system installer (in USA)

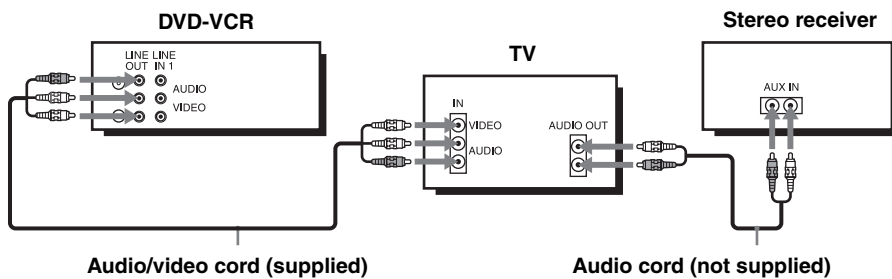
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Audio/video (A/V) hookup

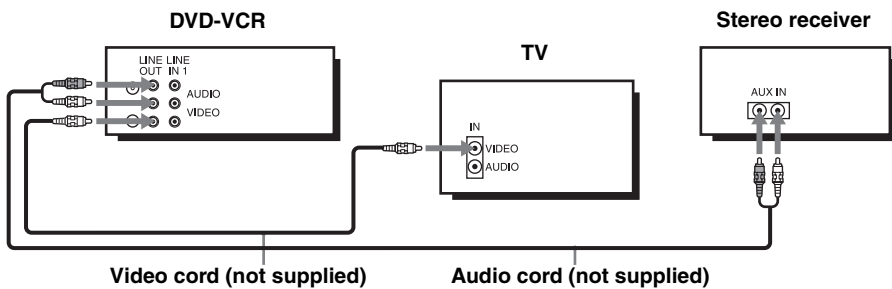
If your TV has audio/video (A/V) input jacks, you will get better picture and sound if you hook up your DVD-VCR using these connections. If your TV does not have A/V inputs, see the following pages for antenna or cable hookups. Note that “Advanced Hookups” (page 55) explains additional hookup methods that will optimize the picture and sound for a true “hometheater” experience.

If you are not planning to use your DVD-VCR to record programs, you only need to make the connections shown on this page. If you want to record regular or cable TV programs, complete these connections first, and then go to the following pages for antenna or cable hookups.

A Use this hookup if your TV has stereo jacks



B Use this hookup if your TV does not have stereo jacks



Notes

- To play a tape/disc in stereo, you must use the A/V connection.
- If you do not have a stereo receiver, connect the white LINE OUT/AUDIO L jack to the AUDIO IN jack on your TV.

continued

Basic hookups 13

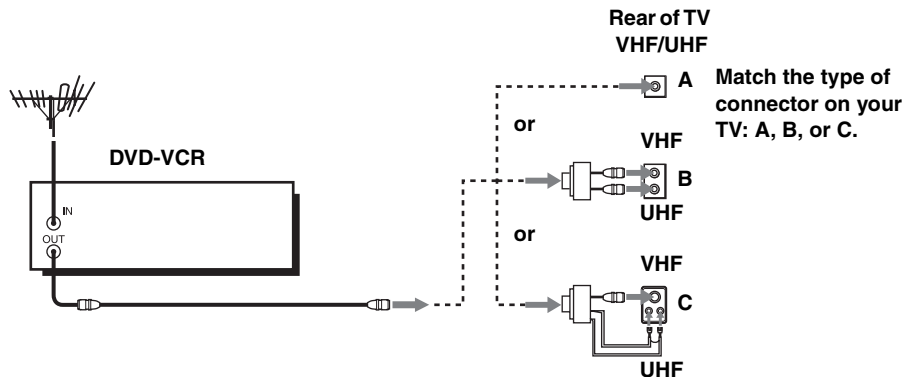
Hookup 1 (Plug and Play)

Antenna hookup

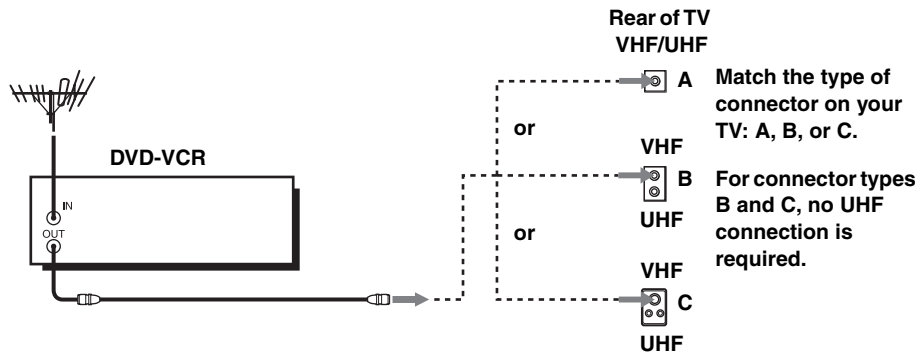
Make the following connections if you are using an antenna (if you do not have cable TV).

A Use this hookup if you are using:

- VHF/UHF antenna (you get channels 2–13 and channels 14 and higher)
- UHF-only antenna (you get channels 14 and higher)
- Separate VHF and UHF antennas



B Use this hookup if you are using a VHF-only antenna (you get channels 2–13 only)



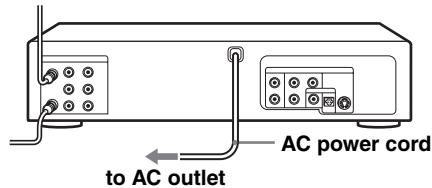
If you cannot connect your antenna cable to the DVD-VCR directly

If your antenna cable is a flat cable (300-ohm twin lead cable), attach an external antenna connector (not supplied) so you can connect the cable to the RF IN connector. If you have separate cables for VHF and UHF antennas, you should use a U/V band mixer (not supplied) (page 102).

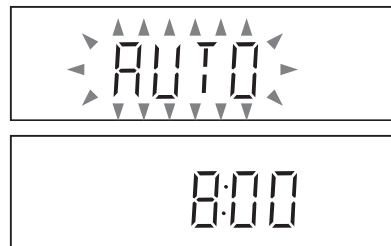
Hookup 1 : DVD-VCR setup

Plug the DVD-VCR into an AC outlet.

The DVD-VCR automatically presets the DVD-VCR's clock and TV channels when the DVD-VCR is plugged into the AC outlet.



The DVD-VCR starts presetting the clock and channels.



When Auto preset is completed, the current time appears in the display window.

You have now completed DVD-VCR setup.

To change the on-screen display language to French or Spanish, see "Step 4 : Selecting a language" on page 19.

The clock is set using a time signal provided by some TV channels. If the clock is incorrect, or "--:--" appears in the display window, see "Using Manual Clock Set" on page 22.

To add or disable channels manually, see "Presetting/disabling channels manually" on page 26.

Notes

- If you connect the AC power cord before the antenna connections are completed, the channels may be incorrectly set. If this happens, see "Step 6 : Presetting channels" on page 24.
- Do not press any buttons on the DVD-VCR or remote commander during Auto preset.
- Auto preset starts automatically only when you plug in the AC power cord for the first time after you purchase the DVD-VCR.
- Auto preset can be performed by pressing ■ STOP on the unit continuously for 5 seconds or more with the DVD-VCR power turned off.

Getting Started

continued

Basic hookups 15

Hookup 2 (Plug and Play)

You have no cable box, or a cable box with only a few scrambled channels

Recommended use

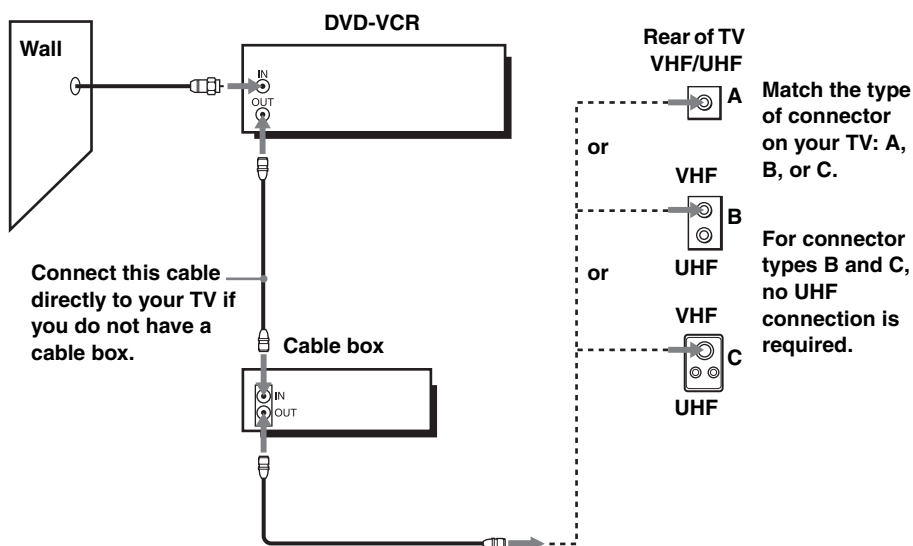
Use this hookup if you do not have a cable box. Also use this hookup if your cable system scrambles only a few channels.

What you can do with this hookup

- Record any unscrambled channel by selecting the channel on the VCR

What you cannot do

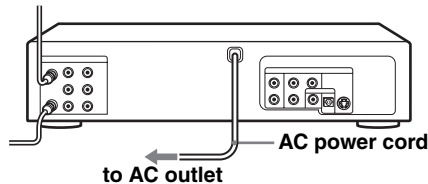
- Record scrambled channels that require a cable box



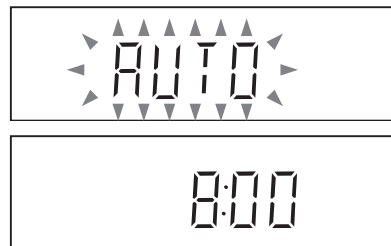
Hookup 2 : DVD-VCR setup

Plug the DVD-VCR into an AC outlet.

The DVD-VCR automatically presets the DVD-VCR's clock and TV channels when the DVD-VCR is plugged into the AC outlet.



The DVD-VCR starts presetting the clock and channels.



When Auto preset is completed, the current time appears in the display window.

You have now completed DVD-VCR setup.

To change the on-screen display language to French or Spanish, see "Step 4 : Selecting a language" on page 19.

The clock is set using a time signal provided by some TV channels. If the clock is incorrect, or "--:--" appears in the display window, see "Using Manual Clock Set" on page 22.

To add or disable channels manually, see "Presetting/disabling channels manually" on page 26.

Notes

- If you connect the AC power cord before the antenna connections are completed, the channels may be incorrectly set. If this happens, see "Step 6 : Presetting channels" on page 24.
- Do not press any buttons on the DVD-VCR or remote commander during Auto preset.
- Auto preset starts automatically only when you plug in the AC power cord for the first time after you purchase the DVD-VCR.
- Auto preset can be performed by pressing **■ STOP on the unit** continuously for 5 seconds or more with the DVD-VCR power turned off.

Getting Started

continued

Basic hookups | 17

Hookup 3

Connecting a cable box with many scrambled channels

Recommended use

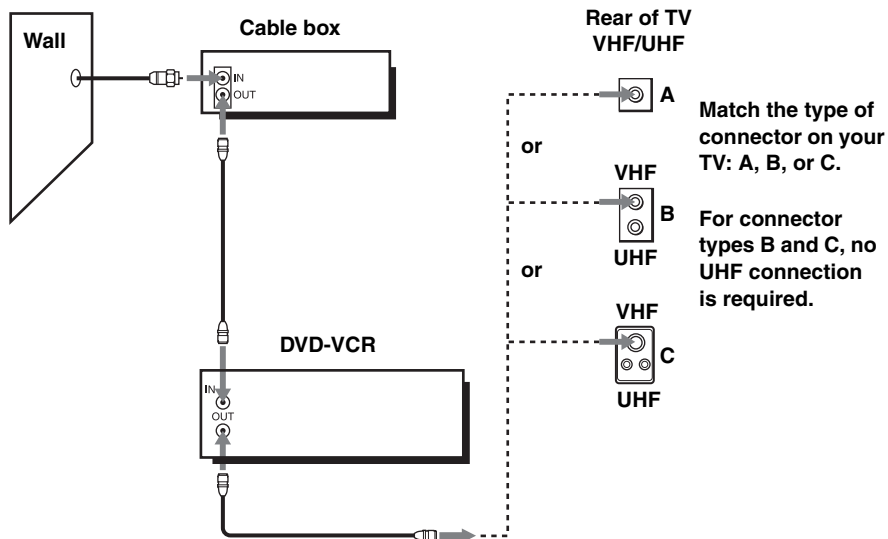
Use this hookup if your cable system scrambles all or most channels.

What you can do with this hookup

- Record any channel by selecting the channel on the cable box

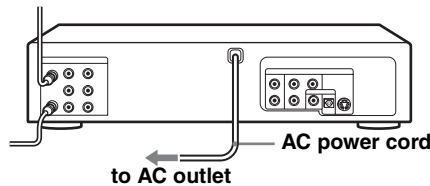
What you cannot do

- Record with the cable box turned off
- Record one channel while watching another channel



After you have completed hookup...

After you have completed hookup, plug the DVD-VCR into an AC outlet and see "Step 4 : Selecting a language" on page 19.

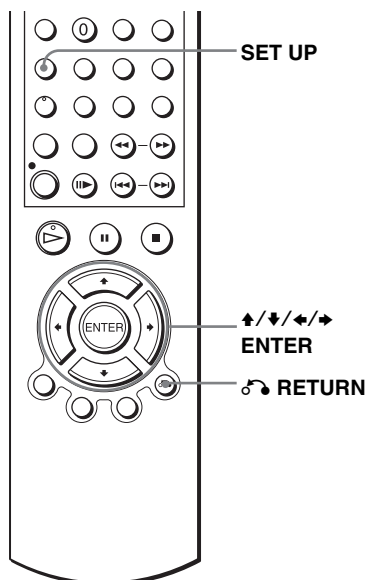


Step 4 : Selecting a language


You can change the on-screen display language.

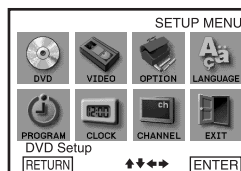
Before you start...


- Turn on the DVD-VCR and your TV.
- To control the DVD-VCR, set **TV / DVD-VIDEO** to **DVD-VIDEO** on the remote (page 9).
- Set the “RF Output Channel” to “3CH” or “4CH” in “OPTION SETUP” menu (page 100). If your TV is connected to the DVD-VCR using A/V connections, set the TV to video input.
- If the DVD player is in play mode, you cannot display the “SETUP MENU.” Stop the DVD playback.

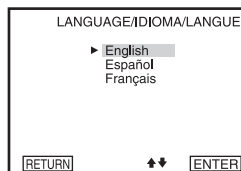



Getting Started

-  Press **SET UP**.
The “SETUP MENU” appears.



-  Press **↑/↓/←/→** to select **Aa** (Language/Idioma/Langue), then press **ENTER**.
The “LANGUAGE/IDIOMA/LANGUE” menu appears.



-  Press **↑/↓** to select the desired language, English, Spanish or French, then press **ENTER**.

-  Press **RETURN** to exit the menu.

Step 5 : Setting the clock

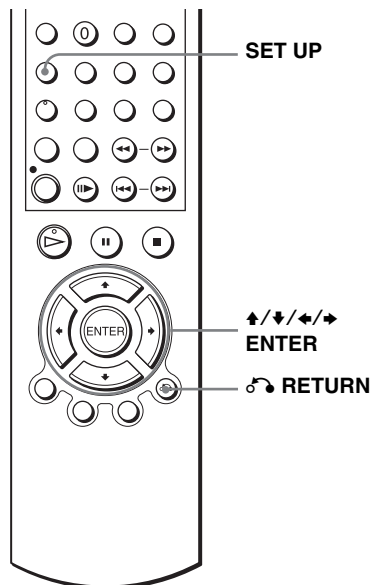
Using the Auto Clock Set feature

Some TV and cable channels transmit time signals with their broadcasts. Your DVD-VCR can pick up this time signal to automatically set the clock.

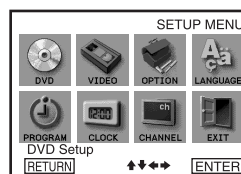
The Auto Clock Set feature works only if a channel in your area is broadcasting a time signal. If broadcasters in your area are not yet sending time signals, set the time manually (page 22).

Before you start...

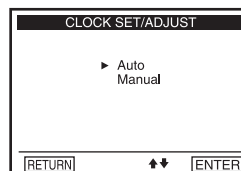
- Turn on the DVD-VCR and your TV. When using a cable box, turn it on.
- To control the DVD-VCR, set **TV / DVD-VIDEO** to **DVD-VIDEO** on the remote (page 9).
- Set the "RF Output Channel" to "3CH" or "4CH" in "OPTION SETUP" menu (page 100). If your TV is connected to the DVD-VCR using A/V connections, set the TV to video input.
- If the DVD player is in play mode, you cannot display the "SETUP MENU." Stop the DVD playback.



- 1** **SET UP** Press SET UP.
The "SETUP MENU" appears.



- 2** Press **↑/↓/←/→** to select **CLOCK** (Clock Set/Adjust), then press ENTER.
The "CLOCK SET/ADJUST" menu appears.



3



Press \uparrow/\downarrow to select "Auto", then press ENTER.

CLOCK SET/ADJUST	
▶ Clock data CH:	[Auto]
Time zone:	[Auto]
Daylight saving:	[Auto]
[RETURN] $\leftarrow \rightarrow \leftarrow \rightarrow$	

4



Press \uparrow/\downarrow to select the item you want. Then press \leftarrow/\rightarrow to make the setting.

- For "Clock data CH"
Leave the setting to "Auto" to have the DVD-VCR automatically search for a channel that carries a time signal. Press \leftarrow/\rightarrow to select a channel that carries a time signal. Use this option if you know of a channel that carries a time signal. Most PBS member stations broadcast a time signal. For the fastest response, select your local PBS station.
- For "Time zone"
Select the time zone of your area, or select "Auto" to have the DVD-VCR automatically set your time zone.
The options are:
Auto \leftrightarrow Atl. (Atlantic) \leftrightarrow East (Eastern)
 \leftrightarrow Cen. (Central) \leftrightarrow Mtn. (Mountain) \leftrightarrow
Pac. (Pacific) \leftrightarrow Alas (Alaska) \leftrightarrow
Haw. (Hawaii) \leftrightarrow Auto
- For "Daylight saving"
Select "Yes" or "No" (standard time), or "Auto" to have the DVD-VCR automatically set the daylight saving time.

CLOCK SET/ADJUST	
▶ Clock data CH:	[123]
Time zone:	[Auto]
Daylight saving:	[Auto]
[RETURN] $\leftarrow \rightarrow \leftarrow \rightarrow$	

CLOCK SET/ADJUST	
Clock data CH:	[Auto]
▶ Time zone:	[Pac.]
Daylight saving:	[Auto]
[RETURN] $\leftarrow \rightarrow \leftarrow \rightarrow$	

CLOCK SET/ADJUST	
Clock data CH:	[Auto]
Time zone:	[Auto]
▶ Daylight saving:	[No]
[RETURN] $\leftarrow \rightarrow \leftarrow \rightarrow$	

Getting Started

5



RETURN

Press \rightarrow RETURN repeatedly to exit the menu.

6

To activate the Auto Clock Set function, turn off the DVD-VCR.

continued

Setting the clock 21

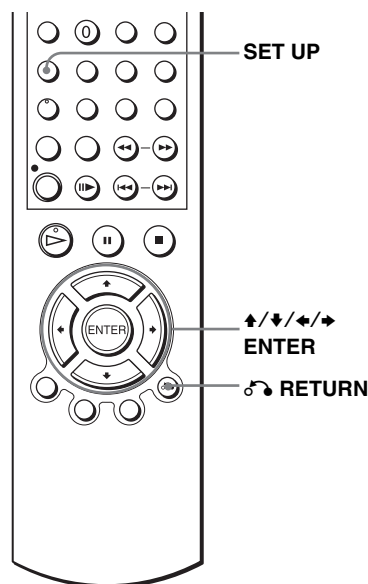
Notes


- The clock cannot be set automatically if you do not receive a channel that carries a time signal in your area. If so, set the clock manually (page 22).
- If there are only a few channels in your area that carry time signals, setting the clock automatically may take up to about 20 minutes. If nothing happens even after you wait about 20 minutes, set the clock manually (page 22).
- If you made Hookup 3, make sure you leave the cable box on.
- To record TV programs using the timer, you must set the clock accurately.
- The clock display appears when VIDEO mode is selected with no tape inserted or when the DVD-VCR is turned off.

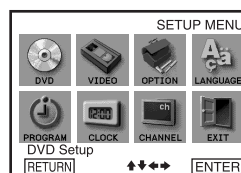
Using Manual Clock Set


Before you start...

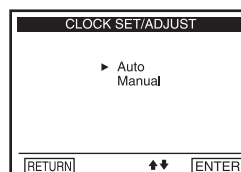
- Turn on the DVD-VCR and your TV.
- To control the DVD-VCR, set **TV / DVD-VIDEO** to **DVD-VIDEO** on the remote (page 9).
- Set the “RF Output Channel” to “3CH” or “4CH” in “OPTION SETUP” menu (page 100). If your TV is connected to the DVD-VCR using A/V connections, set the TV to video input.
- If the DVD player is in play mode, you cannot display the “SETUP MENU.” Stop the DVD playback.



- 1**  Press **SET UP**.
The “SETUP MENU” appears.



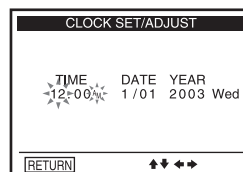
- 2**  Press **↑/↓/←/→** to select **CLOCK** (Clock Set/Adjust), then press **ENTER**.
The “CLOCK SET/ADJUST” menu appears.



3



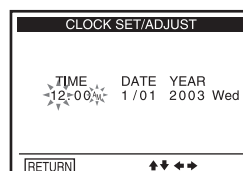
Press \uparrow/\downarrow to select "Manual," then press ENTER.



4



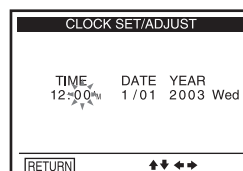
Press \uparrow/\downarrow to set the hour.



5



Press \rightarrow to select the minutes and press \uparrow/\downarrow to set the minutes.



6

Set the month, day, and year in the same way as the minutes.
The day of the week is set automatically.

7



RETURN

Press \rightarrow RETURN to save the clock setting.

Getting Started

Notes

- To record TV programs using the timer, you must set the clock accurately.
- The clock display appears when VIDEO mode is selected with no tape inserted or when the DVD-VCR is turned off.

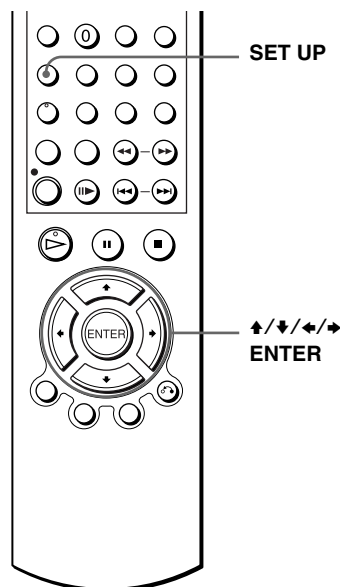
Step 6 : Presetting channels

This DVD-VCR is capable of receiving VHF channels 2 to 13, UHF channels 14 to 69 and unscrambled CATV channels 1 to 125. First, we recommend that you preset the receivable channels in your area using automatic presetting methods. Then, if there are any unwanted channels, disable them manually. If you have already decided which channels you wish to preset, set them directly using manual presetting methods (page 26).

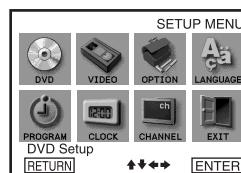
Presetting all receivable channels automatically

Before you start...

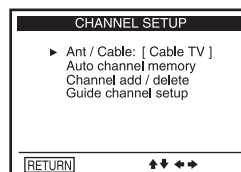
- Turn on the DVD-VCR and your TV. When using a cable box, turn it on.
- To control the DVD-VCR, set **TV / DVD-VIDEO** to **DVD-VIDEO** on the remote (page 9).
- Set the "RF Output Channel" to "3CH" or "4CH" in "OPTION SETUP" menu (page 100). If your TV is connected to the DVD-VCR using A/V connections, set the TV to video input.
- If the DVD player is in play mode, you cannot display the "SETUP MENU." Stop the DVD playback.



- 1** **SET UP** Press SET UP.
The "SETUP MENU" appears.



- 2** Press **↑/↓/←/→** to select **CH** (Channel Setup), then press ENTER.
The "CHANNEL SETUP" menu appears.



3

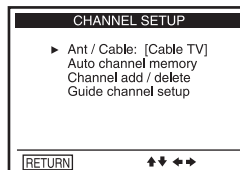


Press $\blacktriangle/\blacktriangledown$ to select "Ant/Cable."

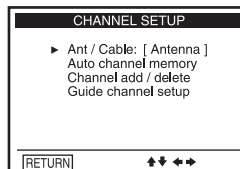
4



- To preset cable TV channels:
Press $\blacktriangle/\blacktriangledown$ to select "Cable TV."



- To preset VHF and UHF channels:
Press $\blacktriangle/\blacktriangledown$ to select "Antenna."

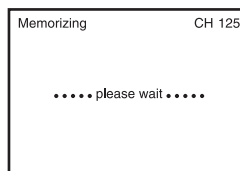


5



Press $\blacktriangle/\blacktriangledown$ to select "Auto channel memory," then press ENTER.

All receivable channels are preset in numerical sequence. When no more receivable channels can be found, presetting stops and the picture from the lowest numbered channel is displayed on the TV screen.



Getting Started

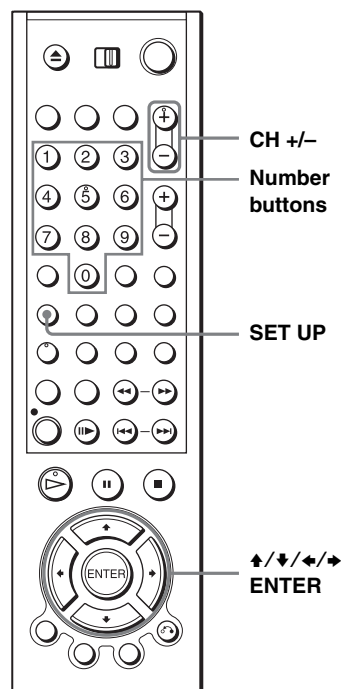
continued


Presetting channels 25

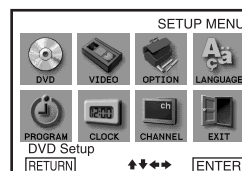
Presetting/disabling channels manually



Before you start...

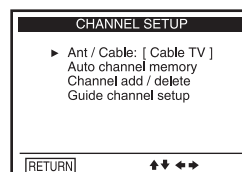
- Turn on the DVD-VCR and your TV.
When using a cable box, turn it on.
- To control the DVD-VCR, set **TV / DVD-VIDEO** to **DVD-VIDEO** on the remote (page 9).
- Set the “RF Output Channel” to “3CH” or “4CH” in “OPTION SETUP” menu (page 100). If your TV is connected to the DVD-VCR using A/V connections, set the TV to video input.
- If the DVD player is in play mode, you cannot display the “SETUP MENU.” Stop the DVD playback.





- 1**  Press SET UP.
The “SETUP MENU” appears.



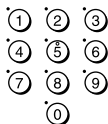
- 2**  Press  (Channel Setup) then press ENTER.
The “CHANNEL SETUP” menu appears.



- 3**  Press  to select “Channel add/delete,” then press ENTER.

4

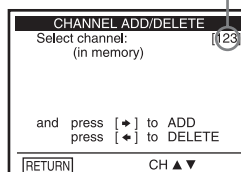
• CH/
TRACKING



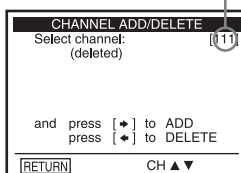
To preset/disable a channel:

- 1** Press CH +/- or number buttons to enter the channel number.
- 2** Press ◀/▶ to select ADD (in memory) or DELETE (deleted).
- 3** Press ENTER.

Channel to be preset



Channel to be disabled



Getting Started

5



RETURN

Press ◀ RETURN repeatedly to exit the menu.

Step 7 : Setting up the VCR Plus+® system

VHS

How the VCR Plus+ system works

Whenever you want to record a TV program, all you need to do is look up the “PlusCode” number, a number assigned to each program published in the TV section of most newspapers, cable TV listings, and even TV GUIDE magazine. Then, just enter the PlusCode number of the program you want and the VCR is automatically programmed to record that show. It’s that simple.

Example of “PlusCode”

		PlusCode
5:30	14 MOVIE — Musical (2hrs.)	33044
	2 SPORT — Golf (1hr. 25min.)	42060
	CNN — WS 9974	
6:30	2 3 4 DRAMA — Comedy (2hrs.)	17390
	5 SCIENCE AND TECHNOLOGY (1hr. 15min.)	73457

How to set up your VCR

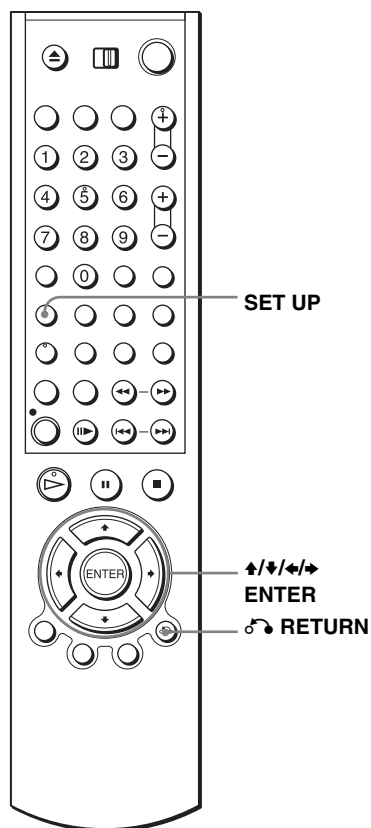
Setting up your VCR involves coordinating the TV channel number (the number you turn to on your TV or VCR to watch a program) with the guide channel (the number that is assigned to that channel in your program guide).

To find the guide channel numbers, look at the “Channel Line-up Chart” in the program guide for your area that features VCR PlusCode numbers. It usually looks like the example to the right.

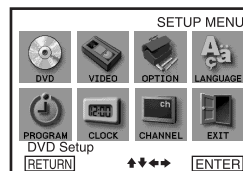
To set the guide channels, use the Channel Line-up Chart to check that the guide channel numbers match the TV channel your VCR receives. For example, if HBO is listed in the Channel Line-up Chart as channel 33, and your VCR receives HBO on channel 5, you need to coordinate these numbers using the following procedure. If the guide and TV channel numbers are the same, you can skip this procedure.

Example of “Channel Line-up Chart”

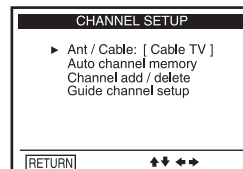
CABLE CH	CABLE TV	VCR Plus+ GUIDE CH
16	AMC American Movie Classics	35
17	BRV Bravo (program grid only)	54
20	CNN Cable News Network	42
21	CSP C-SPAN	28
22	DIS The Disney Channel	53
25	DSC The Discovery Channel	37
34	ESN ESPN	34
35	FAM The Family Channel	47
5	HBO Home Box Office	33
27	LIF Lifetime	46
29	MAX Cinemax	45
30	MTV Music Television	48
31	NIK Nickelodeon	38
38	SC Sports Channel	59
39	SCA Sports Channel America	70
45	SHO Showtime	41
17	TBS TBS SuperStation	43
44	TMC The Movie Channel	58
49	TNN The Nashville Network	49
50	TNT Turner Network Television	52
51	USA USA Network	44



- 1** **SET UP** Press **SET UP**.
The “SETUP MENU” appears.



- 2** Press **↑/↓/←/→** to select **ch** (Channel Setup), then press **ENTER**.
The “CHANNEL SETUP” menu appears.



continued

3



Press $\blacktriangle/\blacktriangledown$ to select "Guide channel setup," then press ENTER.

GUIDE CHANNEL SETUP						
[GUIDE CH]						
01	02	03	04	05	06	
\blacktriangledown						
01	02	03	04	05	06	
[TV CH]						
Enter actual receiving channel						
[RETURN]		$\blacktriangle\blacktriangledown\blacktriangle\blacktriangledown$				

4



The upper row shows VCR Plus+ guide channels and the lower row shows TV channels or cable box output channels. Press $\blacktriangle/\blacktriangledown$ to select the channel number that does not match the guide channel.

5



- If you made Hookup 1 (page 14) or 2 (page 16): Enter the actual number on your TV (and VCR), then press $\blacktriangle/\blacktriangledown$.
- If you made Hookup 3 (page 18): Enter the cable box output channel (usually 2, 3, or 4), then press $\blacktriangle/\blacktriangledown$.

6

Repeat steps 4 and 5 for each channel number that does not match.

7



Press \hookrightarrow RETURN to confirm the setting.

8



Press \hookrightarrow RETURN repeatedly to exit the menu.

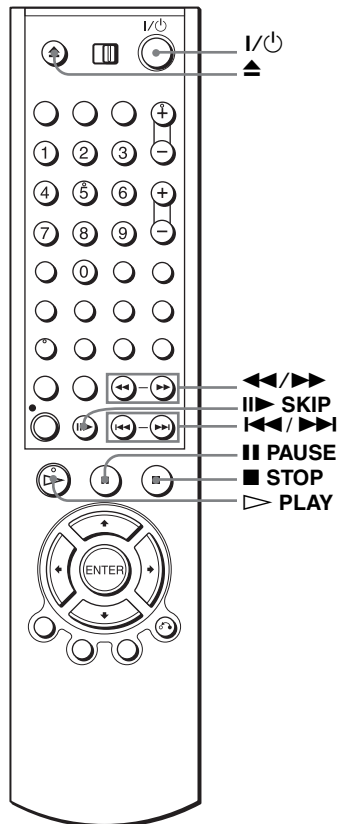
Basic Operations

Playing discs DVD VCD CD DATA-CD

Depending on the disc, some operations may be different or restricted. Refer to the operating instructions supplied with your disc.

Before you start ...

- Turn on the DVD-VCR and your TV.
- Switch the input selector on your TV so that the signal from the player appears on the TV screen.
- Set TV / DVD-VIDEO to DVD-VIDEO, then press SELECT DVD to control the DVD player (page 9).



Basic Operations

1



Press to open the disc tray and place a disc on the disc tray.



**with the playback side
facing down**

continued

Playing discs | 31

2



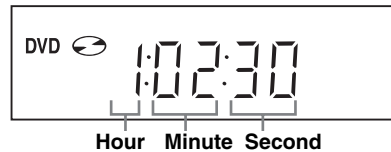
Press  PLAY.

The disc tray closes and the DVD player starts playback. The display window shows the playback time*.








Depending on the disc, a menu may appear on the TV screen.

For DVDs, see page 70. For VIDEO CDs, see page 90.

* “— — — —” appears when no disc is loaded.





Additional tasks

To	Press
Stop play	 STOP
Pause play*	 PAUSE
Resume play after pause	 PLAY
Advance by frame in pause mode	 SKIP
Go to the next chapter, track, or scene in continuous play mode	 on the remote
Go back to the previous chapter, track, or scene in continuous play mode	 on the remote
Stop play and remove the disc	

* If you pause the DVD player for more than 5 minutes, the DVD player will automatically stop.

To Resume playback for the current disc (Resume Play)

The DVD player remembers the point where you stopped the disc even if the DVD player enters standby mode by pressing .

1 While playing a disc, press  STOP to stop playback.

2 Press  PLAY.

The DVD player starts playback from the point where you stopped the disc in Step 1.

To locate a point quickly by playing a disc in fast forward or fast reverse in continuous play mode (DVD, VIDEO CD and CD only)


Press  or .

For DVD or Video CD, each time you press the button, the playback speed changes as follows.

$\times 2 \rightarrow \times 4 \rightarrow \times 8 \rightarrow \times 16 \rightarrow \times 32 \rightarrow \times 128$ (DVD only)

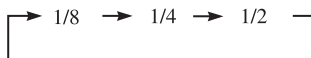
Release the button at the desired speed.

For CD, the searching speed does not change ($\times 8$ play).

When you find the point you want, press  PLAY.

To watch slow motion in continuous play mode (DVD and VIDEO CD only)

Press **II** PAUSE, then press **▶▶** SLOW **▶▶**. With each press, the playback speed changes cyclically as follows.



To resume normal playback, press **▷** PLAY.

Notes

- You can change the screen type using the “SCREEN SETUP” menu. (See “Screen Setup” on page 62)
- Do not perform VIDEO playback while playing back a disc.
- If you play a DVD or VIDEO CD that has scratches, the player may stop playback at the point of the scratch.
- You cannot change the MP3 or the Multi Session CD playback speed.
- VIDEO CD fast forward/reverse and slow motion play cannot be paused.
- When playing a chapter with multi-angles on a DVD in slow motion, you cannot change the slow motion playback speed (1/2 only).
- During CD fast forward/reverse play, no sound is output.
- The PROGRESSIVE button is not available when the DVD player is in play mode. Use the PROGRESSIVE button in stop mode.

Notes on playing DTS* sound tracks on a CD

- When playing DTS-encoded CDs, excessive noise will be heard from the analog stereo jacks. To avoid possible damage to the audio system, the consumer should take proper precautions when the analog stereo jacks of the DVD player are connected to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1-channel decoder system must be connected to the digital jack of the DVD player.
- Set the sound to “STEREO” using the AUDIO button when you play DTS sound tracks on a CD (page 80).
- Do not play DTS sound tracks without first connecting the DVD player to an audio component having a built-in DTS decoder. The DVD player outputs the DTS signal via the DIGITAL AUDIO OUT (COAXIAL or OPTICAL) jack even if “DTS” is set to “Off” in “AUDIO SETUP” menu (page 60), and may affect your ears or cause your speakers to be damaged.

Notes on playing DVDs with a DTS sound track

- DTS audio signals are output only through the DIGITAL AUDIO OUT (COAXIAL or OPTICAL) jack.
- When you play a DVD with DTS sound tracks, set “DTS” to “On” in “AUDIO SETUP” menu (page 60).
- If you connect the player to audio equipment without a DTS decoder, do not set “DTS” to “On” in “AUDIO SETUP” menu (page 60). A loud noise may come out from the speakers, affecting your ears or causing the speakers to be damaged.

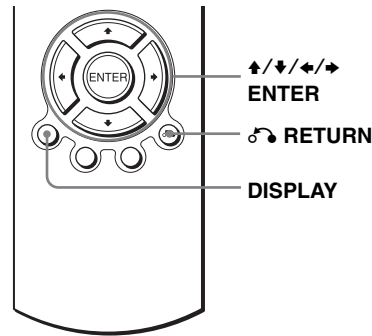
* “DTS” and “DTS Digital Out” are trademarks of Digital Theater Systems, Inc.

Guide to the on-screen display

DVD VCD CD DATA-CD

You can check disc information during playback.

The displayed contents differ according to the type of disc being played.



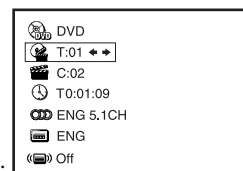
Press DISPLAY. The following information appears; type of disc, current title/track, chapter, counter position, voice language, subtitle language and surround setting. Refer to “DVD Audio/Subtitle Language” on page 117 for the abbreviation of the language.

Type of disc	DVD
Current title/track number	T:01 ↔
Current chapter number	C:02
Counter position	T0:01:09
Voice language	ENG 5.1CH
Subtitle language	ENG
Surround setting	Off

You can playback the desired title/track, chapter or counter position using this menu.

To playback the desired title/track or chapter

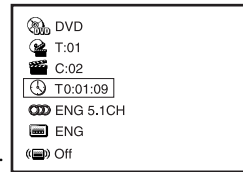
- 1** Press **↕** to select the desired item.
- 2** Press **↔** to change the item.
- 3** Press **ENTER** to start playback.
- 4** Press **DISPLAY** or **RETURN** to turn off the menu.



The title/track or chapter icon will appear on the DVD playback screen followed by the current title/track or chapter number and the counter position.

To playback from the desired counter position

- 1** Press $\blacktriangle/\blacktriangledown$ to select the counter position icon.
- 2** Enter the desired position using the number buttons.
- 3** Press ENTER to start playback.
- 4** Press DISPLAY or \curvearrowright RETURN to turn off the menu.

**Tip**

- You can change the counter position information (playing time or remaining time) using $\blacktriangle/\blacktriangledown$ (DVD and CD only).

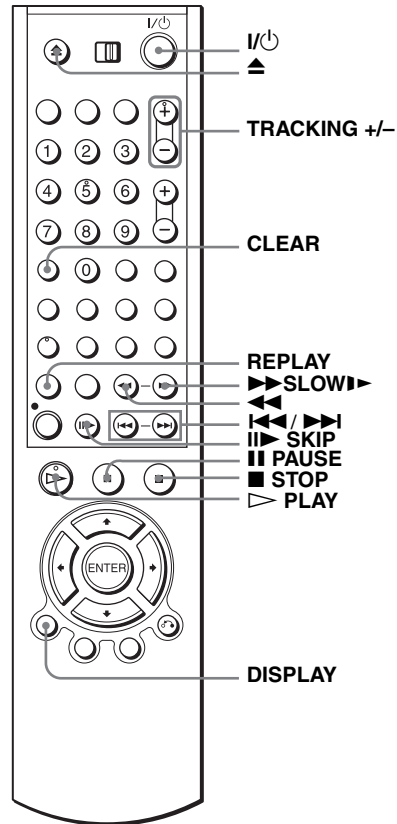
Notes

- The display may not change as operated depending on the disc.
- The display window continue indicating the playing time even when the counter position information on the on-screen display is being changed.

Playing a tape **VHS**

Before you start ...

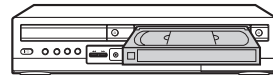
- Turn on the DVD-VCR and your TV.
- Switch the input selector on your TV so that the signal from the player appears on the TV screen.
- Set **TV / DVD-VIDEO** to **DVD-VIDEO**, then press **SELECT VIDEO** to control the VCR (page 9).



1

Insert a tape.

The VCR starts playing automatically if you insert a tape with its safety tab removed.



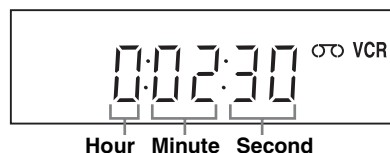
2




Press  PLAY.

The display window shows the playback time.

When the tape reaches the end, it will rewind automatically.



Additional tasks

To	Press
Stop play	■ STOP
Pause play*	PAUSE
Resume play after pause	PAUSE or  PLAY
Fast-forward the tape	▶▶ during stop
Rewind the tape	◀◀ during stop
Eject the tape	▲

* If you pause the VCR for more than 5 minutes, the VCR will automatically resume play.


To play a recently watched scene

You can immediately rewind and playback the scene you want to watch again.


During playback, press REPLAY. The VCR rewinds the tape about 10 seconds in the SP mode (about 15 seconds in the EP mode) on the counter for each press of the button, and restarts playback.

To skip playback

You can skip a scene that you do not want to watch (such as a commercial) and restart playback.

During playback, press  SKIP. The VCR skips the tape 30 seconds on the counter each time the button is pressed (up to four times) and playback is resumed.

To turn off the power while rewinding (Rewind Shut Off)

Press  while the tape is rewinding. The power will turn off but the tape will keep rewinding until it reaches the end.

To play/search at various speeds

Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, hold down ▶▶. During rewind, hold down ◀◀.
Play at high speed	<ul style="list-style-type: none"> During playback, briefly press ▶▶ or ◀◀. The tape continues to play at 5 times normal speed. During playback, hold down ▶▶ or ◀◀. The tape continues to play at 5 times normal speed. When you release the button, normal playback resumes.

continued

Playing a tape 37

Playback options	Operation
Play in slow motion	During pause, press ►► SLOW ►►.
Play frame by frame	During pause, press II► SKIP.
Play at various speeds (Shuttle play)	During playback, press I◀◀ or ►► SHUTTLE. You can change the playback speed as follows. →×7 ↔ →×5 ↔ →×3 ↔ STILL ↔ SLOW ↔ PLAY ←×2 ↔ ←×3 ↔ ←×5 ↔ ←×7

To resume normal playback

Press ▷ PLAY.

To use the time counter

Press CLEAR at the point on the tape that you want to find later. The counter in the display window resets to “0:00:00.” To search for the counter 0:00:00 point automatically, see “To search for the counter 0:00:00 point” on page 95.



To display the counter on the TV screen, press DISPLAY during normal playback.

Tip

- Adjust the picture using the TRACKING +/- buttons if:
 - Streaks appear while playing in slow motion.
 - The picture shakes during pause.

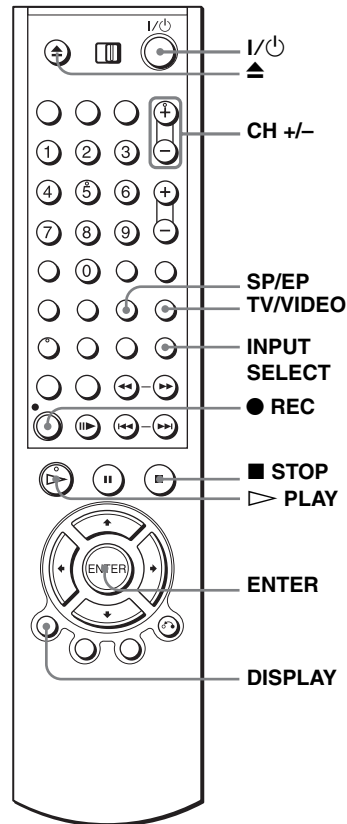
Notes

- Tapes recorded in the LP mode on other VCRs can be played back on this VCR but the picture quality cannot be guaranteed.
- The counter resets to “0:00:00” whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.
- When 10 hours have passed, the counter in the display window returns to “0:00:00” and the count starts over again.
- The sound is muted during playback at various speeds.
- The picture may show noise when playing at high speed in reverse.
- While playing a tape, you can display the “SETUP MENU” but the remote commander’s function switches to DVD automatically. Press RETURN repeatedly to exit the menu.
- When playback does not start even if you insert a tape with its safety tab removed, set “Auto Play” to “On” in the “VIDEO FUNCTION SETUP” menu (page 97).
- Stop disc playback while playing back a video.
- The VCR can also play S-VHS tapes. The VCR will automatically identify the type of tape inserted in the VCR (either VHS or S-VHS). When S-VHS tapes are played in the VCR, the enhanced resolution will not be visible on screen; there may also be picture distortion while playing the S-VHS tape in slow motion or while utilizing other special playback modes. The VCR will not record in S-VHS mode on an S-VHS tape.

Recording TV programs **VHS**

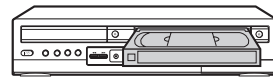
Before you start ...

- Turn on the DVD-VCR and your TV.
- Switch the input selector on your TV so that the signal from the player appears on the TV screen.
- Set **TV / DVD-VIDEO** to **DVD-VIDEO**, then press **SELECT VIDEO** to control the VCR (page 9).
- To record from a cable box, turn it on.
- Make sure the tape is longer than the total recording time.



Basic Operations

- 1 Insert a tape with its safety tab in place.



- 2 Press CH +/- to select the channel or line input video source you want to record.

• CH/
TRACKING



continued

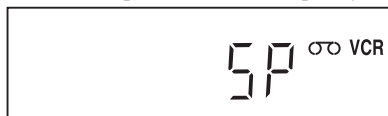
3

SP / EP



Press SP/EP to select the tape speed, SP or EP.

EP (Extended Play) provides recording time three times as long as SP (Standard Play). However, SP produces better picture and audio quality.



4

● REC



Press ● REC to start recording.

“REC” appears in the display window.

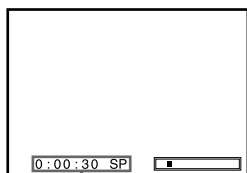


To stop recording

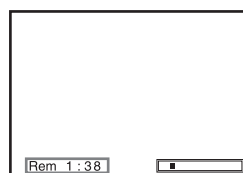
Press ■ STOP.

To check the remaining tape length

Press DISPLAY to display the time counter. With the display on, press DISPLAY again to check the remaining time. The white bar indicates the current location in relation to the entire tape length. The remaining time also appears. Press DISPLAY to turn off the indicators.



Time counter



Remaining tape length

To check the remaining tape length of a tape, set “Tape Length” in the “VIDEO FUNCTION SETUP” menu correctly (page 97).

Maximum Recording Time

Tape Length	SP	EP
T-120	2 hrs	6 hrs
T-160	2 hrs 40 mins	8 hrs
T-180	3 hrs	9 hrs

To watch another TV program while recording


- 1 Press TV/VIDEO to display "TV" in the display window.



- 2 If your TV is connected to the VCR using A/V connections, set the TV to the TV's antenna input; if not, skip this step.
- 3 Select another channel on the TV.

To watch a DVD while recording

- 1 Press SELECT DVD to control the DVD player.

- 2 Press  and place the disc on the disc tray.

- 3 Press  PLAY.

The disc tray closes and the DVD player starts playback. The TV screen will automatically change to the DVD playback screen.

To save a recording

To prevent accidental erasure, break off the safety tab as illustrated. To record on the tape again, cover the tab hole with adhesive tape.



Basic Operations

Tips

- To select a channel, you can use the number buttons on the remote commander. Enter the channel number, then press ENTER.
- You can select a video source from the LINE IN 1 or LINE-2 IN jacks using the INPUT SELECT button.
- The display appears on the TV screen indicating information about the tape, but the information will not be recorded on the tape.
- If you do not want to watch TV while recording, you can turn off the TV. When using a cable box, make sure to leave it on.

Notes

- The remaining tape length may not be indicated accurately for short tapes such as T-20 or T-30, or tapes recorded in the LP mode.
- It may take up to one minute for the VCR to calculate and display the remaining tape length after you press DISPLAY.
- You cannot record a DVD to a VCR tape.
- To watch a TV program during video recording, stop disc playback.

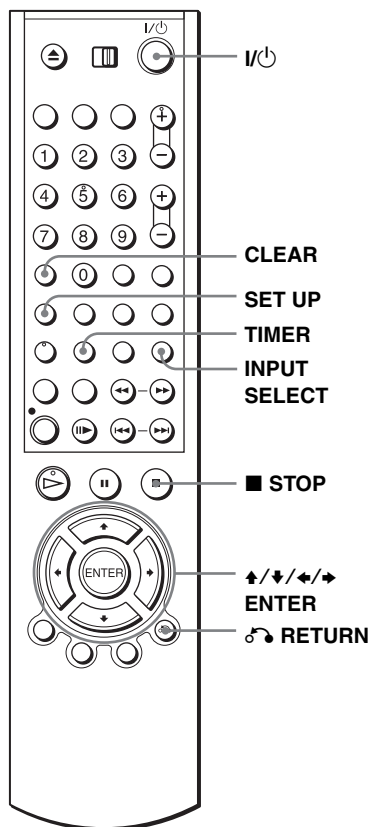
Recording TV programs using the timer

VHS

You can preset up to eight programs at a time.

Before you start...

- Check that the DVD-VCR clock is set to the correct time.
- Turn on the DVD-VCR and your TV.
- Switch the input selector on your TV so that the signal from the player appears on the TV screen.
- Set **TV / DVD-VIDEO** to **DVD-VIDEO**, then press **SELECT VIDEO** to control the VCR (page 9).
- When using a cable box, turn it on.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- If the DVD player is in play mode, you cannot display the “SETUP MENU.” Stop the DVD playback.



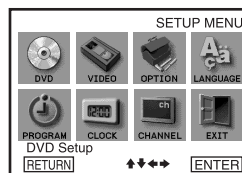
- SET UP**

Press **SET UP**.


The “SETUP MENU” appears.

You can also use the **TIMER** button in **VIDEO** mode, then you can skip step 2.

SUBTITLE/TIMER



2

Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to select  (Set Timer Recording), then press ENTER.

The program menu appears.

CH	START	END	DATE	SPD
▶ ---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
[RETURN] ♦♦ ♦♦				

3

If necessary, press \uparrow/\downarrow to select the row that is to be set.

4

Set the channel number, start and stop time, date, and tape speed:

1 Press \rightarrow to flash each item in turn.

2 Press \uparrow/\downarrow to set each item.

CH	START	END	DATE	SPD
▶ 35	8:00 ^{PM}	9:00 ^{PM}	9/30	SP ^A
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
[RETURN] ♦♦ ♦♦				

To correct a setting, press \leftarrow to return to that setting and reset.





To record from a source connected to the LINE IN 1 or LINE-2 IN jacks, press INPUT SELECT or \uparrow/\downarrow to display “L1” or “L2” in the “CH” position.

To record the same program every day or the same day every week, press \downarrow while the date is flashing. For details, see “Daily/weekly recording” on page 44.

To use the Auto Tape Speed function, press \downarrow to display “AUTO” in the “SPD” position. For details, see “To use the Auto Tape Speed function” on page 44.

5

Press  RETURN to confirm the setting.

The  indicator appears in the display window.



To enter another setting, press \uparrow/\downarrow to select the next row and repeat step 4.

Press CLEAR repeatedly to cancel the setting.

6

Press  RETURN repeatedly to exit the menu.

The DVD-VCR stands by for recording (timer recording will operate properly regardless if the DVD-VCR power is on or off). When using a cable box, leave it on.

continued

To stop recording

To stop the DVD-VCR while recording, press SELECT VIDEO and then press
■ STOP.

Daily/weekly recording

In step 4 above, press ▼ to select the recording pattern. Each time you press ▼, the indication changes as shown below. Press ▲ to change the indication in reverse order.

MO~FR → SUN'S → MON'S → → SAT'S → 1 month later → (dates count down) → the current date

To use the Auto Tape Speed function

When you are recording a program in the AUTO mode and the remaining tape becomes shorter than the recording time, the tape speed is automatically changed to the EP mode. Note that some noise will appear on the picture when the tape speed is changed. If you want to keep the tape speed, select SP. To operate this function, set "Tape Length" in "VIDEO FUNCTION SETUP" menu correctly (page 97).

To watch another TV program after setting the timer

- 1 Press TV/VIDEO to display "TV" in the display window.



- 2 If your TV is connected to the VCR using A/V connections, set the TV to the TV's antenna input; if not, skip this step.
- 3 Select another channel on the TV.

To watch a DVD after setting the timer

- 1 Press SELECT DVD to control the DVD player.
- 2 Press ▲ and place the disc on the disc tray.
- 3 Press ▷ PLAY.

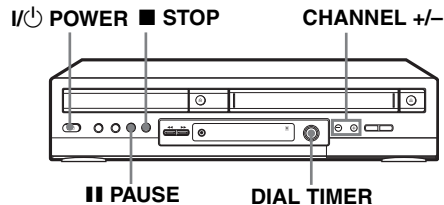
The disc tray closes and the DVD player starts playback. The TV screen will automatically change to the DVD playback screen.

Tips

- To set the channel, you can also use ▲/▼.
- If the □ indicator appears, the timer settings overlap. To check, change or cancel the program setting, repeat the steps of "Recording TV programs using the timer" on page 42.
- If the ○ indicator appears, this means that the VCR is currently recording this program.
- You can also do the following tasks while the VCR is recording:
 - Reset the counter (page 38).
 - Display tape information on the TV screen (page 40).

Recording TV programs using the Dial Timer **VHS**

The Dial Timer function allows you to make timer recordings of programs without turning on your TV. Set the recording timer to record up to eight programs that will be broadcast within a month using the DIAL TIMER. The recording start time and recording stop time can be set at one minute intervals.



Before you start....

- Turn on the DVD-VCR.
- When using a cable box, turn it on.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.

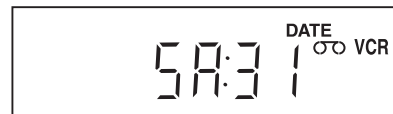
Basic Operations

- 1** **DIAL TIMER** Press DIAL TIMER.

DATE indicator appears and the current date flashes in the display window. If the date and time are not set, MONTH indicator will appear. To set the date and time, see "To set the clock" on page 48.



- 2** **DIAL TIMER** Turn DIAL TIMER to set the recording date.



continued

3

DIAL TIMER



Press DIAL TIMER to set the start time.

“START” and the next quarter hour increment appear alternately in the display window.

START σ VCR



A 9:30 σ VCR

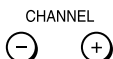
4

DIAL TIMER



Turn DIAL TIMER to set the recording start time.

You can set the recording start time in 15 minute intervals or adjust the time in one minute intervals by pressing the CHANNEL +/- buttons on the unit.



A 9:47 σ VCR

5

DIAL TIMER



Press DIAL TIMER to set the stop time.

“STOP” and the next quarter hour increment appear alternately in the display window.

STOP σ VCR



A 10:00 σ VCR

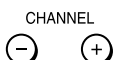
6

DIAL TIMER



Turn DIAL TIMER to set the recording stop time.

You can set the recording stop time in 15 minute intervals or adjust the time in one minute intervals by pressing the CHANNEL +/- buttons on the unit.



A 10:18 σ VCR

7

DIAL TIMER

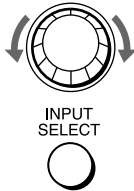


Press DIAL TIMER.

“Current channel” flashes in the display window.

8

DIAL TIMER



Turn DIAL TIMER to set the channel number.

To record from a source connected to the LINE IN 1 or LINE-2 IN jacks, turn DIAL TIMER or press INPUT SELECT to display “L1” or “L2.”

9

DIAL TIMER

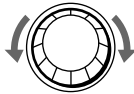


Press DIAL TIMER.

“Current tape speed” flashes in the display window.

10

DIAL TIMER



Turn DIAL TIMER to set the tape speed.

11

DIAL TIMER



Press DIAL TIMER to complete the setting.

“OK” appears in the display window for about five seconds.

The timer indicator appears in the display window and the VCR stands by for recording. When using a cable box, leave it on.

To return to the previous stepTo return to the previous step, press the CHANNEL + and – buttons on the unit at the same time during any of the Dial Timer settings.**continued**

To set the clock

- 1** Hold down DIAL TIMER so that MONTH indicator appears in the display window. However, if the clock has already been set, the current setting appears.
- 2** Turn DIAL TIMER to set the month.
- 3** Press DIAL TIMER.
DAY indicator appears in the display window.
- 4** Turn and press DIAL TIMER to set the day and then the year.
After you set the year, "AM" and "12:- --" appear alternately in the display window.
- 5** Turn and press DIAL TIMER to set the hour and minute.
- 6** When you have finished setting the time, press DIAL TIMER to start the clock.

Tips

- To cancel a Dial Timer setting, press any button other than DIAL TIMER or CHANNEL +/- on the unit or any button on the remote while you are making the setting.
- To check, change, or cancel the program setting, see "Checking/changing/canceling timer settings" on page 53.

Notes

- If eight programs have already been set using the VCR Plus+ system or the manual timer setting, "FULL" appears in the display window for about five seconds.
- If you set the clock using the Auto Clock Set feature, the clock will adjust itself to the incoming time signal regardless of adjustments made with the Dial Timer. Be sure you have set Auto Clock Set correctly.
- If you are setting the clock for the first time or "0:- --" appears in the display window, you cannot set the clock to February 29th using the Dial Timer. Please use the Auto Clock Set feature to set the VCR to this day.
- The timer indicator flashes in the display window when you complete the setting in step 9 on page 47 with no tape inserted.
- When the setting time is incorrect, "Error" appears in the display window in step 9. Set the timer again from step 1.

About the Demonstration Mode

The Dial Timer function has a Demonstration Mode that allows the user, such as a salesperson, to enter more than eight examples of timer settings when demonstrating the use of the Dial Timer. It cancels the FULL notice which appears if eight programs have already been set. Do not use the Demonstration Mode for making timer recordings. Doing so may cause the settings to be inaccurate.

To activate the Demonstration Mode

Press **■ PAUSE** on the unit while turning the DIAL TIMER. "DEMO" appears in the display window for a few seconds.

To cancel the Demonstration Mode

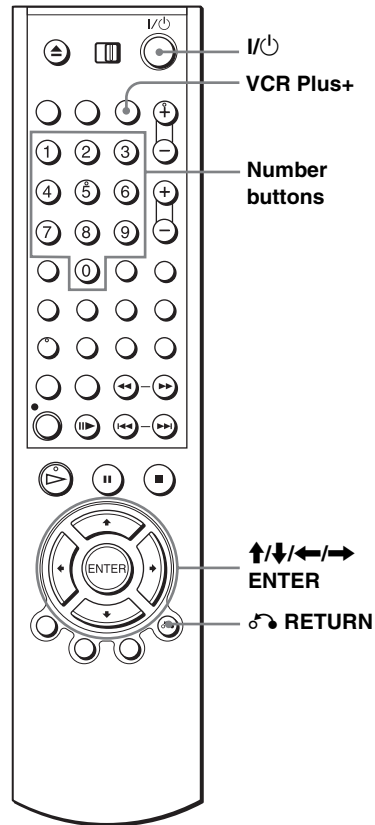
Turn the power off and unplug the AC power cord. Although the Demonstration Mode is canceled, the timer settings entered while using the Demonstration Mode will remain. Be sure to manually cancel the timer settings before you use the Dial Timer or any other timer method after reconnecting the AC power cord (page 53).

Recording TV programs using the VCR Plus+® system **VHS**

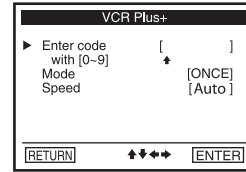
Just enter the PlusCode number listed in the TV program guide. The date, time and channel number of that program are set automatically. You can preset up to eight programs together with the DIAL TIMER and manual timer settings at one time.

Before you start...

- Check that the DVD-VCR clock is set to the correct time.
- Turn on the DVD-VCR and your TV.
- Switch the input selector on your TV so that the signal from the player appears on the TV screen.
- Set **TV / DVD-VIDEO** to **DVD-VIDEO**, then press **SELECT VIDEO** to control the VCR (page 9).
- When using a cable box, turn it on.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- If the DVD player is in play mode, you cannot display the "SETUP MENU." Stop the DVD playback.



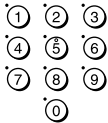
1 VCR Plus+ Press the VCR Plus+ button.



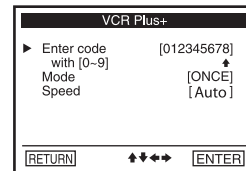
2 Press \uparrow/\downarrow to select "Enter code."



3 Press the number buttons to enter the PlusCode number.



To correct a setting, press \leftarrow to return to that setting and reset.



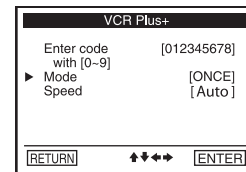
4 Press \uparrow/\downarrow to select "Mode."



5 Press \leftarrow/\rightarrow to select ONCE, MO~FR, or Weekly:



To record	Select
Only once	ONCE
Everyday Monday to Friday	MO~FR
Once a week	Weekly



6 Press \uparrow/\downarrow to select "Speed."



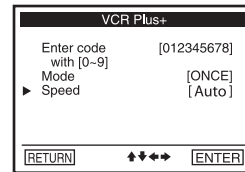
Basic Operations

continued

7



Press to select the tape speed, Auto, SP, or EP.



8



Press ENTER to confirm the setting.

To enter another setting, repeat steps 1 to 7.

9



RETURN

Press RETURN to exit the menu.

10



Press to turn off the VCR.

The timer indicator appears in the display window and the VCR stands by for recording. When using a cable box, leave it on.

To stop recording

To stop the VCR while recording, press STOP.

To use the DVD-VCR after setting the timer

To use the DVD-VCR before a timer recording begins, just press . The timer indicator disappears from the display window and the DVD-VCR switches on. Remember to press to reset the VCR to the timer recording standby mode after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 38).
- Display tape information on the TV screen (page 40).
- Check the timer settings (page 53).
- Watch another TV program (page 41).

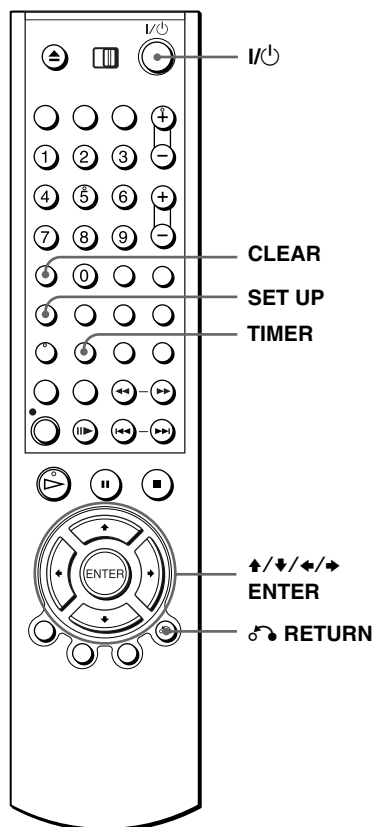
Tip

- To check, change or cancel the program setting, see “Checking/changing/canceling timer settings” on page 53.

Note

- If the VCR does not accept the PlusCode number, this means that:
 - The PlusCode number is incorrect.
 - ONCE, MO~FR, or Weekly was selected incorrectly. You cannot select MO~FR or Weekly for a program that airs more than seven days ahead. Correctly set the PlusCode number again from step 2.
- When the PlusCode number is incorrect, “Invalid Code” will appear in the display.

Checking/changing/canceling timer settings **VHS**



Basic Operations

1

SET UP



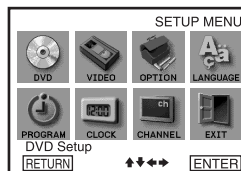
SUBTITLE/
TIMER



Press SET UP when the DVD player is in stop mode.

The “SETUP MENU” appears.

You can also use the TIMER button in VIDEO mode, then you can skip step 2.



continued

2



RETURN

Press /// to select “Set Timer Recording”, then press ENTER.

- If you want to change a setting, go on to the next step.
- If you do not need to change the settings, press RETURN repeatedly to exit the menu, then turn off the VCR to return to recording standby.

3



CLEAR



Press / to select setting you want to change or cancel.

- To change the setting, press / to flash the item you want to change, and press / to change it.
- To cancel the setting, press CLEAR.

CH	START	END	DATE	SPD
▶ 35	08:00 ^{hr}	9:00 ^{hr}	9/30	SP
20	10:00 ^{hr}	11:30 ^{hr}	10/02	EP
60	08:30 ^{hr}	10:00 ^{hr}	9/30	AUTO
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
[RETURN]				

4



RETURN

Press RETURN to confirm the setting.

The indicator appears in the display window.

5



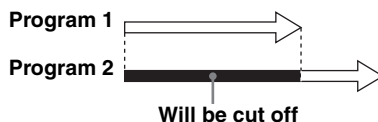
RETURN

Press RETURN repeatedly to exit the menu.

The DVD-VCR stands by for recording (you do not have to turn off the DVD-VCR). When using a cable box, leave it on.

When the timer settings overlap

The program that starts first has priority and the second program starts recording only after the first program has finished. If the programs start at the same time, the program listed first in the menu has priority.



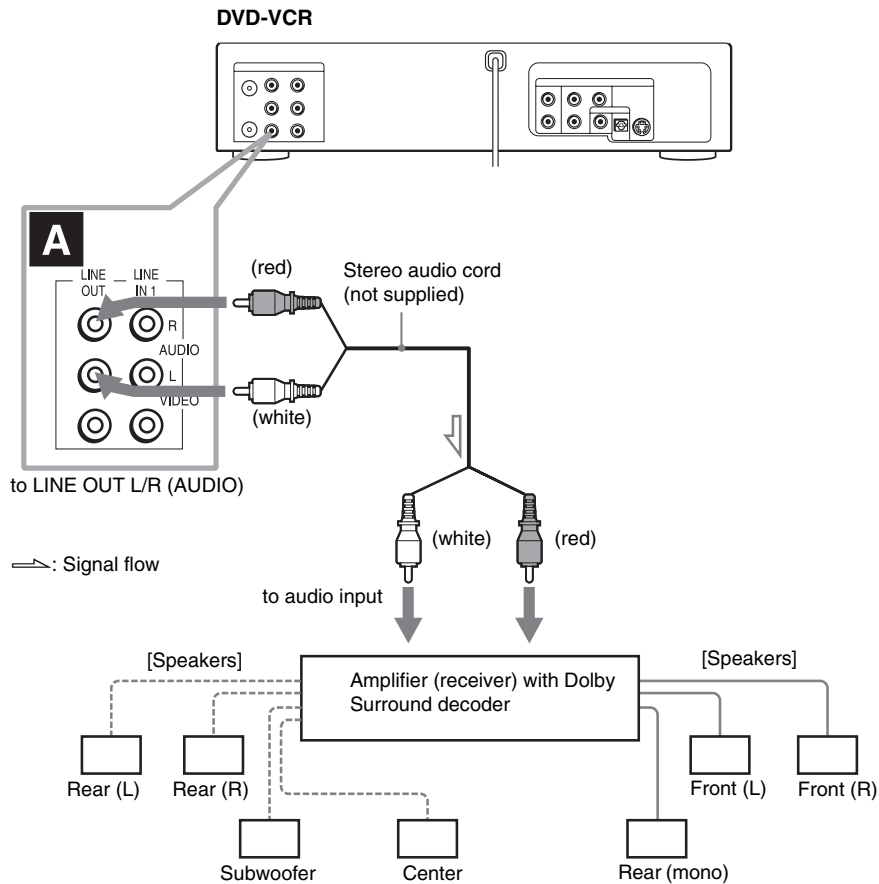
Advanced Hookups

A/V Receiver hookup **DVD VCD CD DATA-CD VHS**

A Use this hookup if your A/V receiver has a Dolby* Surround (Pro Logic) decoder and 3 to 6 speakers

You can enjoy the Dolby Surround effects only when playing Dolby Surround audio or multi-channel audio (Dolby Digital) discs.

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



Note

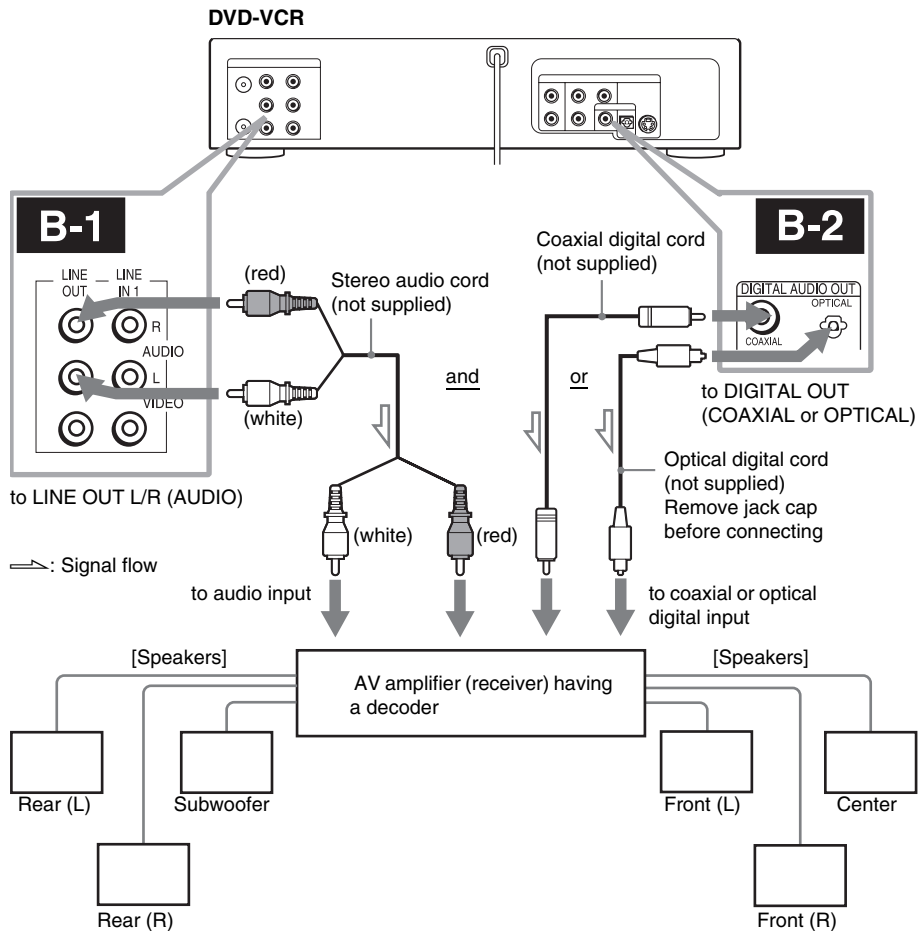
- When connecting 6 speakers, replace the monaural rear speaker with a center speaker, 2 rear speakers and a subwoofer.

continued

B Use this hookup if your A/V receiver has a Dolby Digital or DTS* decoder, a digital input jack and 6 speakers

This connection will allow you to use the Dolby Digital or DTS decoder function of your AV amplifier (receiver). You are not able to enjoy the surround sound effects of this player. You must make connections using **B-1** and **B-2**.

* "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.



Note

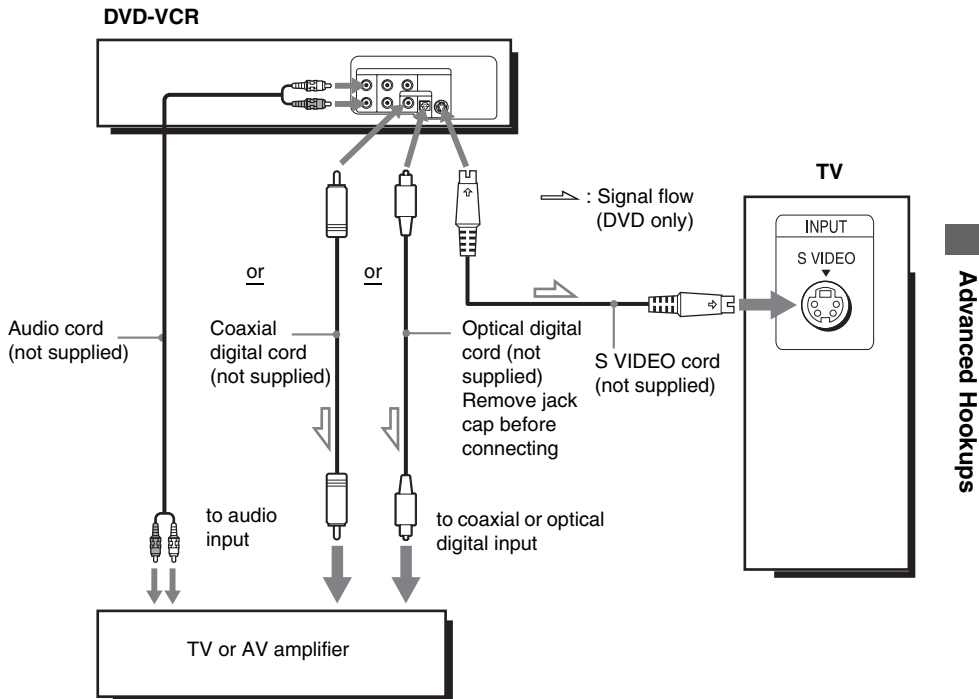
- After you have completed the connection, be sure to set "Dolby Digital" to "Dolby Digital" and "DTS" to "On" in "AUDIO SETUP" menu (page 60). Otherwise, no sound or a loud noise will come from the speakers.

S-Video/Component Video hookup **DVD** **VCD**

Make audio connections using the LINE OUT AUDIO L/R jacks or DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jacks on the right side of the DVD-VCR when you use S-VIDEO/Component Video hookup.

A Use this hookup if your TV has an S VIDEO input jack

Connect an S VIDEO cord (not supplied). You will enjoy high quality images.



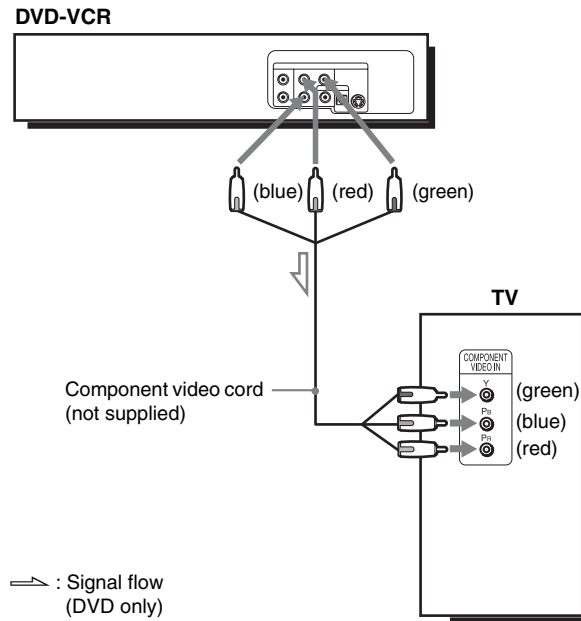
Notes

- Set "Video Out" to "S-Video" in the "SCREEN SETUP" menu (page 64) to view pictures from the S VIDEO jack.
- The connection using S VIDEO OUT jack is only for the DVD player.

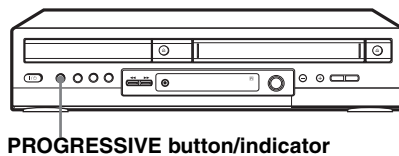
continued

B Use this hookup if your TV has component video input jacks

Connect your TV via the COMPONENT VIDEO OUT jacks using a component video cord (not supplied) or three video cords (not supplied) of the same kind and length. You will enjoy accurate color reproduction and high quality images. See page 55 for audio connections.



If your TV accepts progressive (480p) format signals, you must use this connection and then press the PROGRESSIVE button on the front panel when the DVD player is in stop mode to accept progressive video signals. The PROGRESSIVE indicator lights up in blue when the DVD player outputs progressive signals.



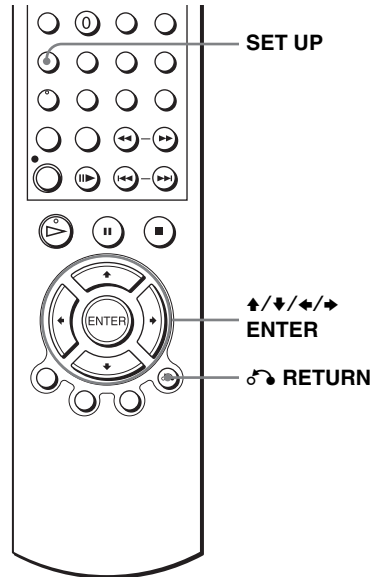
Notes

- Set “Video Out” to “Component” in the “SCREEN SETUP” menu (page 64) to view pictures from the component video jacks.
- The connection using COMPONENT VIDEO OUT jack is only for the DVD player.
- The PROGRESSIVE button is not available when the DVD player is in play mode. Use the PROGRESSIVE button in stop mode.


DVD Settings and Adjustments

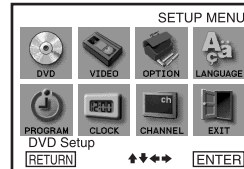
Audio Setup DVD




“Audio Setup” allows you to set the sound according to the playback and connection conditions.





DVD Settings and Adjustments

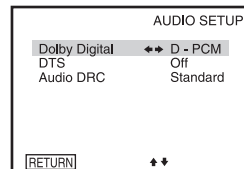
- 1**  Press SET UP when the DVD player is in stop mode.
The “SETUP MENU” appears.



- 2**  Press  to select  (DVD Setup), then press ENTER.
The “DVD SETUP” menu appears.



- 3**  Press  to select “Audio Setup,” then press ENTER.



continued

4



Press \uparrow/\downarrow to select the setup item from the displayed list:
“Dolby Digital,” “DTS,” or “Audio DRC.”

5



Press \leftarrow/\rightarrow to select an item, then press \hookrightarrow RETURN to confirm the setting.



RETURN

6



RETURN

Press \hookrightarrow RETURN repeatedly to exit the menu.

Menu choices

- **Dolby Digital** (DVD only)

Selects the type of Dolby Digital signal.

The default setting is indicated in bold print.

D-PCM	Select this when the player is connected to an audio component lacking a built-in Dolby Digital decoder.
Dolby Digital	Select this when the player is connected to an audio component with a built-in Dolby Digital decoder.

- **DTS** (DVD only)

Selects whether or not to output DTS signals.

The default setting is indicated in bold print.

Off	Select this when the player is connected to an audio component lacking a built-in DTS decoder.
On	Select this when the player is connected to an audio component with a built-in DTS decoder.

- **Audio DRC** (Dynamic Range Control) (DVD only)

Makes the sound clear when the volume is turned down when playing a DVD that conforms to “Audio DRC.” This affects the output from the following jacks:

- LINE OUT AUDIO L/R jacks
- DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack only when “Dolby Digital” is set to “D-PCM”.

The default setting is indicated in bold print.

Standard	Normally select this position.
TV Mode	Makes the low sounds clear even if you turn the volume down.