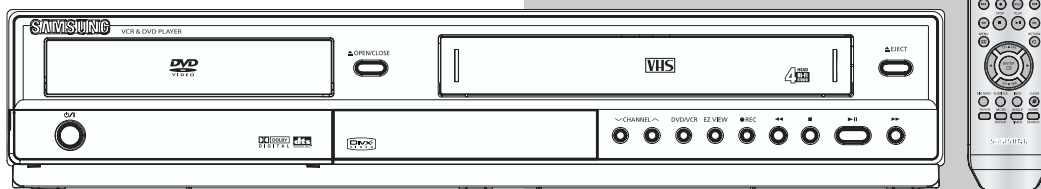


SAMSUNG

Instruction Manual

DVD-V5650 DVD-V5650B



DVD
VIDEO

VHS Hi-Fi

www.samsung.com

SAFETY INSTRUCTIONS

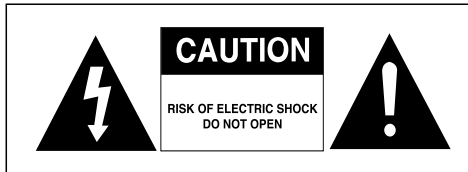
Important Safety Instructions

- 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, 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 cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
- 13) Unplug this apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 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.

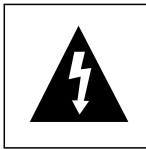


SAFETY INSTRUCTIONS

Precautions



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



This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

Do not install this equipment in a confined space such as a bookcase or similar unit.

WARNING : To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

Note to CATV system installer: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I) 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.

Caution: FCC regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

FCC NOTE (for U.S.A):

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 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 this 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.

This class B digital apparatus meets all requirements of the Canadian Interference -- Causing Equipment Regulations.

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT
LUOKAN 1 LASER LAITE
KLASS 1 LASER APPARAT
PRODUCTO LÁSER CLASE 1

SAFETY INSTRUCTIONS

CAUTION

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVER AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

Note:

- This unit can be used only where the power supply is AC 120V, 60Hz. It cannot be used elsewhere.
- This DVD player is designed and manufactured to respond to the Region Management Information.
If the Region number of a DVD disc does not correspond to the Region number of this DVD player, the DVD player cannot play the disc.
- The product unit accompanying this user manual is licensed under certain intellectual property rights of certain third parties. In particular, this product is licensed under the following US patents: 5,991,715, 5,740,317, 4,972,484, 5,214,678, 5,323,396, 5,539,829, 5,606,618, 5,530,655, 5,777,992, 6,289,308, 5,610,985, 5,481,643, 5,544,247, 5,960,037, 6,023,490, 5,878,080, and under US Published Patent Application No. 2001-44713-A1.

This license is limited to private non-commercial use by end-user consumers for licensed contents. No rights are granted for commercial use. The license does not cover any product unit other than this product unit and the license does not extend to any unlicensed product unit or process conforming to ISO/IEC 11172-3 or ISO/IEC 13818-3 used or sold in combination with this product unit.

The license only covers the use of this product unit to encode and/or decode audio files conforming to the ISO/IEC 11172-3 or ISO/IEC 13818-3. No rights are granted under this license for product features or functions that do not conform to the ISO/IEC 11172-3 or ISO/IEC 13818-3.

Handling Cautions

- Before connecting other components to this player, be sure to turn them all off.
- Do not move the player while a disc is being played, or the disc may be scratched or broken, and the player's internal parts may be damaged.
- Do not put a flower vase filled with water or any small metal objects on the player.
- Be careful not to put your hand into the disc tray.
- Do not place anything other than the disc in the disc tray.
- Exterior interference such as lightning and static electricity can affect normal operation of this player.
If this occurs, turn the player off and on again with the POWER button, or disconnect and then reconnect the AC power cord to the AC power outlet. The player will operate normally.
- Be sure to remove the disc and turn off the player after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the player for long periods of time.
- Clean the disc by wiping in a straight line from the inside to the outside of the disc.

Disc Storage

Be careful not to harm the disc because the data on these discs is highly vulnerable to the environment.

- Do not keep under direct sunlight.
- Keep in a cool ventilated area.
- Store vertically.
- Keep in a clean protection jacket.

Maintenance of Cabinet

For safety reasons, be sure to disconnect the AC power cord from the AC outlet.

- Do not use benzene, thinner, or other solvents for cleaning.
- Wipe the cabinet with a soft cloth.

BEFORE YOU START

Before you start

Accessories



Remote Control
AK59-00051A



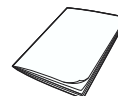
Batteries-2EA
1.5V(AAA)
AC43-12002H



Video/Audio Cable
AC39-00073A



Antenna Cable
AC39-42001J

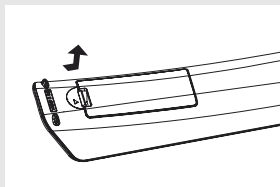


User's Guide
AK68-00956E

Install Batteries in the Remote Control

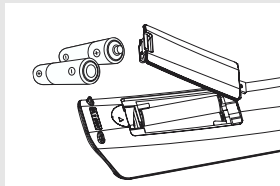
1

Open the battery cover on the back of the remote control.



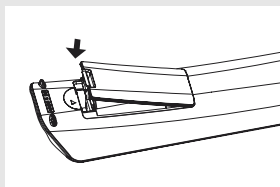
2

Insert two AAA batteries. Make sure that the polarities (+ and -) are aligned correctly.



3

Replace the battery cover.



If the remote control doesn't operate properly:

- Check the polarity +, - of the batteries (Dry-Cell)
- Check if the batteries are drained.
- Check if remote control sensor is blocked by obstacles.
- Check if there is any fluorescent lighting nearby.

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Chapter 1

SETUP

General Features

DVD-VCR Features

- Perfect compatibility to play back DVDs, audio CDs or VHS Tapes.
- Enjoy a DVD movie while recording a TV show to the VCR.
- Auto Setup instantly finds the time and runs channel search.
- RF input and output.
- Composite, S-Video, and Component Video outputs.
- On-Screen Program (English/French/Spanish).

DVD Features

- 10-bit video digital to analog converter and 54MHz advanced digital filter.
- Playback of 96KHz/24-bit sources.
- DTS digital output for DTS-enhanced DVDs.
- This unit can play MPEG4 formats within an avi file.
- Playback MP3-CDs.

VCR Features

- Hi-Fi Stereo VCR.
- Superior slow motion and stop action (with 4 heads).
- Playback of S-VHS tapes with a better than standard resolution.
- INTRO Scan, Zero Return, and END Search.
- 7-event/1 month timer recording.
- Time remaining counter, real time counter.

Note

- Discs which cannot be played with this player.
 - DVD-ROM/DVD-RAM/VCD
 - CDI/CDV
 - Super Audio CD (CD, HD layer)
 - CDGs play audio only, not graphics.
 - DVD-RW (VR mode)
 - Non-finalizing DVD-RW, -R, DVD+RW, and +R disc.
- Ability to play back may depend on recording conditions.
 - DVD-RW, -R/CD-RW/DVD+RW, +R/CD-ROM

Note

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

COPY PROTECTION

Many DVD discs are encoded with copy protection. Because of this, you should only connect your DVD-VCR directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected DVD discs.

This product incorporates copyright protection technology that is protected by methods 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.

PROGRESSIVE SCAN OUTPUTS (525p)

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

SETUP

Disc Type and Characteristics

This DVD-VCR is capable of playing the following types of discs with the corresponding logos:

Disc Types (Logos)	Recording Types	Disc Size	Max. Playing Time	Characteristics
DVD 	Audio + Video	5"	Single-sided 240 min. Double-sided 480 min.	- DVD contains excellent sound and video due to Dolby Digital and MPEG-2 system. - Various screen and audio functions can be easily selected through the on-screen menu.
		3 1/2"	Single-sided 80 min. Double-sided 160 min.	
AUDIO-CD 	Audio	5"	74 min.	- CD is recorded as a Digital Signal with better audio quality, less distortion and less deterioration of audio quality over time.
		3 1/2"	20 min.	

- CD-R, CD-RW and DVD-RW, -R, DVD+RW, +R discs may not be playable in all cases due to the disc type or condition of the recording.
- Do not run the player with two discs loaded at the same time.

Disc Markings

	Play Region Number
	NTSC broadcast system in U.S.A, Canada, Korea, Japan, etc.
	Dolby Digital disc
	Stereo disc
	Digital Audio disc
	DTS disc
	MP3 disc

Region Number

Both the DVD-VCR and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play.

The Region Number for this player is described on the rear panel of the player.



DivX Certification

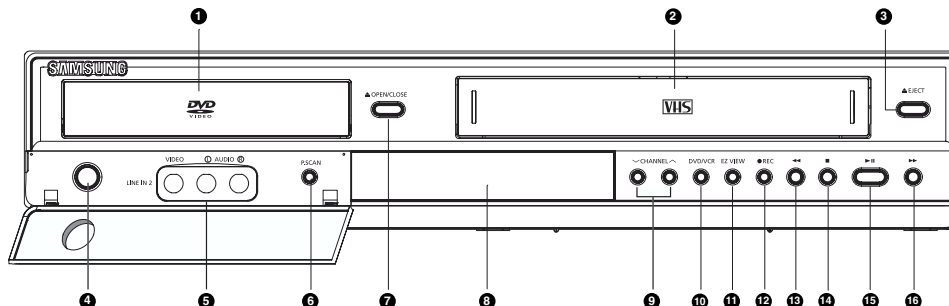
You must only insert one DVD disc at a time. Inserting two or more discs will not allow playback and may cause damage to the DVD-VCR.

DivX, DivX Certified, and associated logos are trademarks of DivXNetworks, Inc and are used under license.



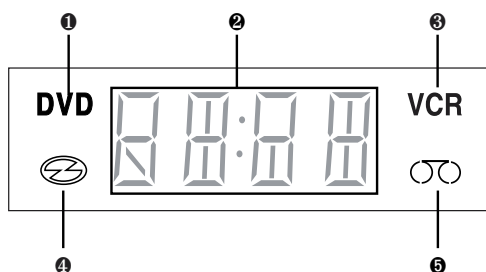
Description

Front Panel Controls



- 1 **DISC TRAY**
Place the disc here.
- 2 **VCR Deck**
Insert a standard VHS video tape.
- 3 **▲ EJECT**
Press to eject a video tape if the tape is stopped.
- 4 **⏻/I (POWER)**
Press to turn the DVD-VCR on and off.
- 5 **LINE IN 2**
Connect to the Video/Audio output jack of your external device.
- 6 **P.SCAN**
Press to select video out mode.
- 7 **▲ OPEN/CLOSE**
Press to open and close the disc tray.
- 8 **Front Panel Display**
Operation indicators are displayed here.
- 9 **CHANNEL V and ^**
Press to change channels.
- 10 **DVD/VCR**
Press to view DVD or VCR mode.
- 11 **EZ VIEW**
The aspect ratio of a picture can easily be adjusted to your TV's screen size.
- 12 **● REC (VCR)**
Press to begin recording.
- 13 **◀◀ (Reverse/Rewind)**
Press to reverse/rewind a disc/video tape.
- 14 **■ (STOP)**
Press to stop a disc/video tape during playback or record (VCR).
- 15 **▶▶ (Play/Pause)**
Press to play or pause the disc/video tape.
- 16 **▶▶▶ (Forward/Fast Forward)**
Press to forward/fast forward a disc/videotape.

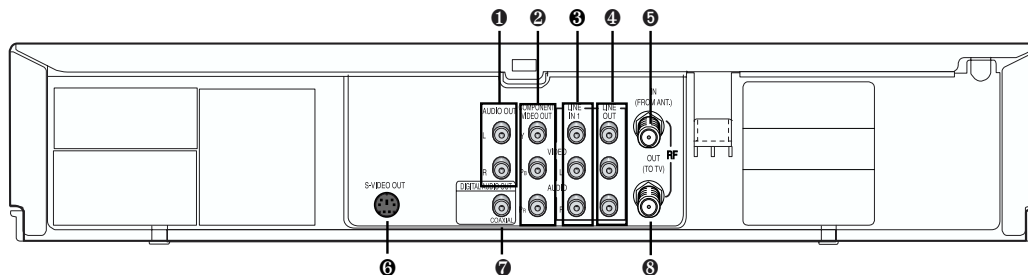
Front Panel Display



- 1 DVD is activated.
- 2 The time, counter position, time remaining or current deck status is indicated.
- 3 VCR is activated.
- 4 DVD or CD media is loaded.
- 5 VHS videotape is loaded.

SETUP

Rear Panel



- 1 AUDIO OUT**
Connect to the Audio input jacks of your television. You can use as audio output terminal when Component or S-Video is connected.
- 2 COMPONENT VIDEO OUT**
 - Use these jacks if you have a TV with Component Video in jacks. These jacks provide P_R, P_B and Y video.
 - If Component (Progressive Scan) Video Output is selected in the Alt Video Out menu or by using the P.SCAN button on the front panel, progressive scan mode will be enabled.
 - If Component (Interlace Scan) Video Output is selected in the Alt Video Out menu or by using the P.SCAN button on the front panel, interlaced scan mode will be enabled.
- 3 LINE IN 1 (VIDEO/AUDIO)**
Connect to the Video/Audio output jack of your external device.
- 4 LINE OUT (VIDEO/AUDIO)**
Use the Video/Audio cable to connect to the Video/Audio input jacks on your television. You can also use as audio output terminal when Component or S-Video is connected.
- 5 RF IN (FROM ANT.)**
Connect the RF Antenna cable to your DVD-VCR.
- 6 S-VIDEO OUT**
Use the S-Video cable to connect this jack to the S-Video input jack on your television for higher picture quality. You can use as audio output terminal when Component or S-Video is connected.
- 7 DIGITAL AUDIO OUT (COAXIAL)**
 - Use a Coaxial digital cable to connect to a compatible Dolby Digital receiver.
 - Use a Coaxial digital cable to connect to an A/V Amplifier that contains a Dolby Digital, MPEG2 or DTS decoder.
- 8 RF OUT (TO TV)**
Connect your DVD-VCR to a TV.

DVD/VCR Output Chart

Type of Connection	DVD Output Jacks	VCR Output Jacks
S-VIDEO OUT	O	X
COMPONENT VIDEO OUT	O	X
AUDIO OUT (L,R)	O	X
DIGITAL AUDIO OUT (COAXIAL)	O	X
LINE OUT (A/V)	O	O
RF OUT	O	O

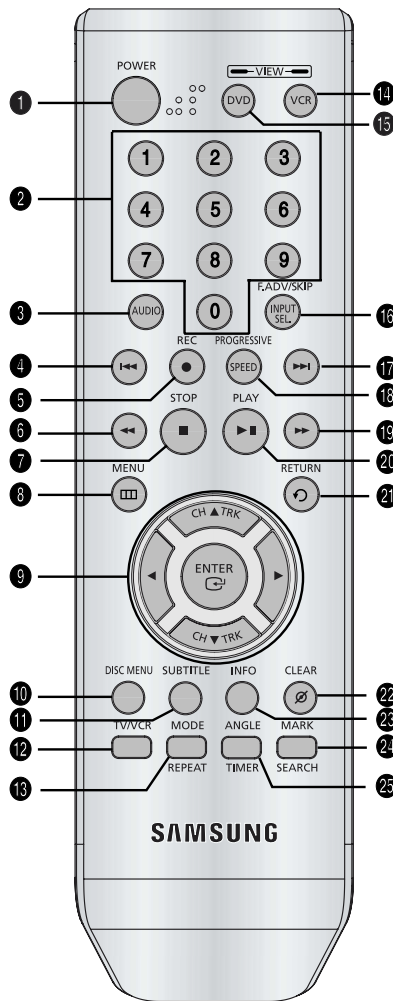
◀ O : Active.
X : Inactive.

Notes

- Consult your TV User's Manual to find out if your TV supports Progressive Scan. If Progressive Scan is supported, follow the TV User's Manual regarding Progressive Scan settings in the TV's menu system.
- If Component (Progressive Scan) Output is selected in Alt Video Out menu, Video and S-Video will not work.
- See pages 61 ~ 62 to get more information on how to use the Alt Video Out menu.

Tour of the Remote Control

- 1 **POWER button**
Press to turn the DVD-VCR on and off.
- 2 **NUMBER Buttons**
- 3 **AUDIO button**
Use this button to access various audio functions on a disc. (DVD)
- 4 **⏮ Skip button**
Press to reverse skip a disc. Use to skip a title, chapter or track on a disc.
- 5 **REC button**
Press to begin recording. (VCR)
- 6 **⏮ Search button**
Press to reverse search a disc.
- 7 **■ (STOP) button**
Press to stop a disc/video tape during play or record (VCR).
- 8 **MENU button**
Brings up the DVD-VCR player's menu.
- 9 **ENTER/▲▼◀▶/Channel/Tracking ▲ or ▼ buttons**
This button functions as a toggle switch. Press to change channels (TV). Press to adjust tape tracking (VCR).
- 10 **DISC MENU button**
Brings up the Disc menu. (DVD)
- 11 **SUBTITLE button**
Press to display the subtitle language name abbreviation on screen.
- 12 **TV/VCR button**
Press to switch between TV and VCR mode.
- 13 **MODE button**
Use to select the program or random play.
REPEAT button
Allows you to repeat play a title, chapter, track, or disc. (DVD)



- 14 **VCR button**
Use to operate VCR.
- 15 **DVD button**
Use to operate DVD.
- 16 **F.ADV/SKIP/INPUT SEL. button**
Press to advance play one frame at a time (DVD and VCR). Press to fast forward a video tape (VCR). Press to select a external signal source.
- 17 **⏭ Skip button**
Press to forward skip a disc. Use to skip a title, chapter or track on a disc.
- 18 **PROGRESSIVE/SPEED button**
Press to select progressive scan mode (DVD). Press to select the tape recording speed (VCR).
- 19 **⏭ Search button**
Press to forward search a disc.
- 20 **▶|| (Play/Pause) button**
Press to play or pause the disc/video tape.
- 21 **RETURN button**
Returns to a previous menu.
- 22 **CLEAR button**
Use to remove menus or status displays from the screen.
- 23 **INFO. button**
Displays the current disc mode. (DVD)
- 24 **MARK/SEARCH button**
Press to memorize scenes for replay. (DVD)
Displays the VCR Function menu. (VCR)
- 25 **ANGLE/TIMER button**
Use to access various camera angles on a disc (DVD). Displays the Timer Program menu (VCR).

Chapter 2

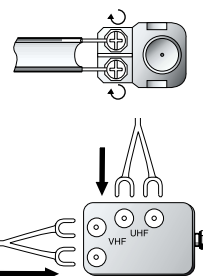
CONNECTIONS

Connecting the Antenna Cable

There are several ways to connect your DVD-VCR. Select one of the following antenna connections that best suits you below.

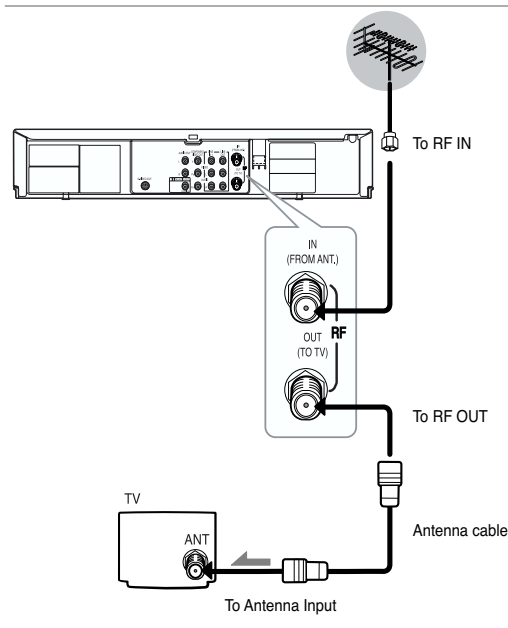
- Method 1: Antenna + DVD-VCR + TV: No Cable box
- Method 2: Antenna + Cable box + DVD-VCR + TV: Cable box with many scrambled channels
- Method 3: Antenna + DVD-VCR + Cable box + TV: Cable box with a few scrambled channels

- If you are using an off-air antenna that has 300-ohm twin flat leads, use an external antenna connector (300-75 ohm adaptor: not supplied) to connect the antenna to the DVD-VCR.
- If you have two separate antennas (one VHF and the other UHF), use a UHF/VHF combiner-adaptor (available at most electronics shops) to connect the antenna to the DVD-VCR.
- The RF OUT(To TV) jack of this product sends signals received through the antenna and also outputs Audio/Video signals.



Method1 : Antenna + DVD-VCR + TV: No Cable box

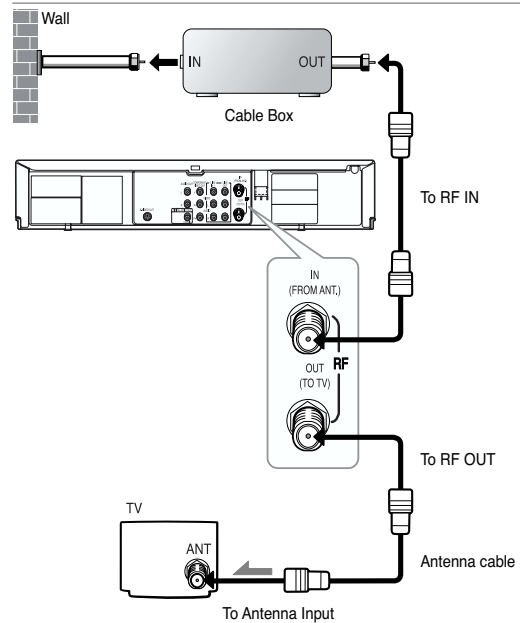
You can record non-scrambled channels by selecting the channel on the DVD-VCR. Also use this Method if you watch channels without cable box.



CONNECTIONS

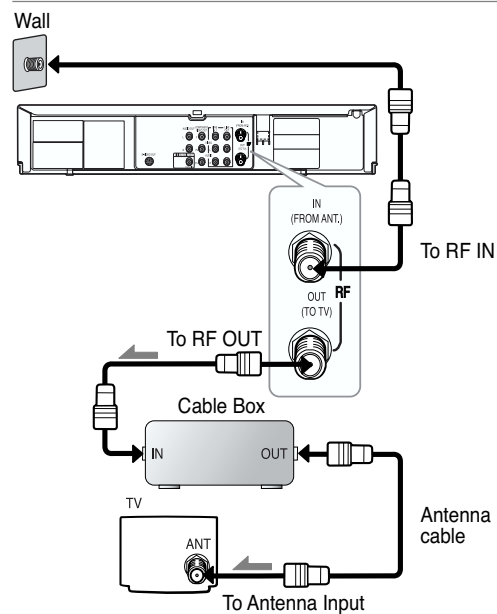
Method2: Antenna + DVD-VCR + TV: Cable box with many scrambled channels

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



Method3: Antenna + DVD-VCR + TV: Cable box with a few scrambled channels

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



CONNECTIONS

Before Connecting the DVD-VCR

- Always turn off the DVD-VCR, TV, and other components before you connect or disconnect any cables.
- Refer to the user's manual of the additional components (such as a TV) you are connecting for more information on those particular components.

Connection to a TV

The following shows examples of connections commonly used to connect the DVD-VCR with a TV and other components.

Connection to a TV (Video)

1

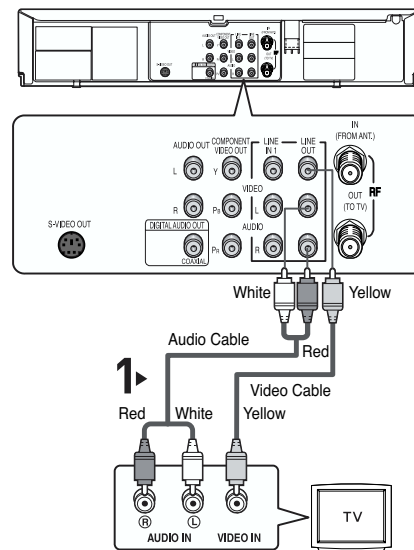
Using video/audio cables, connect the **VIDEO (yellow)/AUDIO (red and white) OUT** terminals on the rear of the DVD-VCR to the **VIDEO (yellow)/AUDIO (red and white) IN** terminals of your TV.

2

Turn on the DVD-VCR and TV.

3

Press the input selector on your TV remote control until the Video signal from the DVD-VCR appears on the TV screen.



Notes

- **Noise may be generated if the audio cable is placed too close to the power cable.**
- If you want to connect to an Amplifier, please refer to the Amplifier connection page. (See pages 19 to 20).
- The number and position of terminals may vary depending on your TV set. Please refer to the user's manual of your TV.
- If there is one audio input terminal on the TV, connect it to the LINE OUT AUDIO OUT Left (white) terminal of the DVD-VCR.
- If you press the **P.SCAN** button when DVD-VCR is in stop mode or no disc is inserted, the Alt Video Out mode changes in the following sequence: (S-Video - Interlace - Progressive)
- When the Alt Video Output in Display setup menu is set to Progressive, the S-Video Outputs do not work.

CONNECTIONS

Connection to a TV (S-Video)

- Connecting to your TV using an S-Video cable.
- You will enjoy high quality images. S-Video separates the picture element into black and white(Y) and color(C) signals to present clearer images than regular video input mode. (Audio signals are delivered through the audio out or line out audio).

1

Using an S-Video cable (not included), connect the **S-VIDEO OUT** terminal on the rear of the DVD-VCR to the **S-VIDEO IN** terminal of your TV.

2

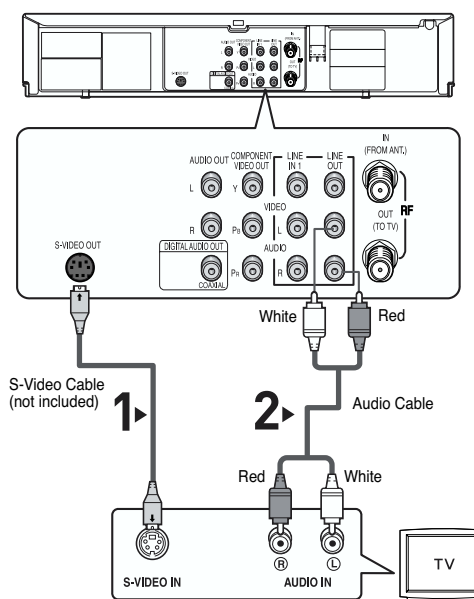
Using the audio cables, connect from the **AUDIO OUT** or **LINE OUT AUDIO (red and white)** terminals on the rear of the DVD-VCR to the **AUDIO (red and white) IN** terminals of your TV. Turn on the DVD-VCR and TV.

3

With the unit in stop mode, set the Alt video output to **S-Video** in the Display Setup menu (see pages 61~62) or press the **PROGRESSIVE** button on the remote control until S-Video is output.

4

Press the input selector on your TV remote control until the S-Video signal from the DVD-VCR appears on your TV screen.



Notes

- If you want to connect to an Amplifier, please refer to the Amplifier connection page. (See pages 19 to 20)
- The number and position of terminals may vary depending on the TV set. Please refer to the user's manual of your TV.
- The S-Video jack only outputs video from the DVD player. To view video from the VCR, you must have the Video Out (Yellow) or RF Out jack connected.
- You can hear sound from **LINE OUT AUDIO** or **AUDIO OUT** (red and white) terminals for S-Video connection. VCR audio only outputs through the Line Out Audio jacks (Red, White).

CONNECTIONS

Connection to a TV (Interlace)

- Connecting to your TV using Component video cables.
- You will enjoy high quality and accurate color reproduction images. Component video separates the picture element into black and white(Y), blue(P_b), red(P_r) signals to present clear and clean images. (Audio signals are delivered through the audio out or line out audio).

1

Using component video cables (not included), connect the **COMPONENT VIDEO OUT** terminal on the rear of the DVD-VCR to the **COMPONENT IN** terminal of your TV.

2

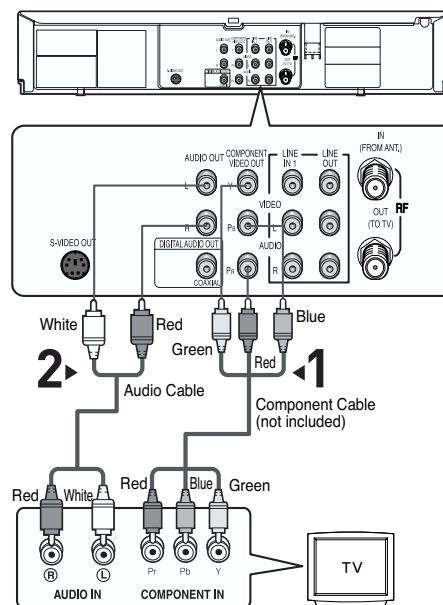
Using the audio cables, connect from the **AUDIO OUT** or **LINE OUT AUDIO (red and white)** terminals on the rear of the DVD-VCR to the **AUDIO (red and white) IN** terminals of your TV. Turn on the DVD-VCR and TV.

3

With the unit in stop mode, set the Alt video output to **Component: Interlace** in the Display Setup menu (see pages 61~62) or press the **PROGRESSIVE** button on the remote control until Interlace is output.

4

Press the input selector on your TV remote control until the Component signal from the DVD-VCR appears on the TV screen.



Notes

- If Video output is incorrectly set to S-Video with the Component cables connected, the screen will turn red.
- If you want to connect to an Amplifier, please refer to the Amplifier connection page. (See pages 19 to 20)
- The component terminal of your TV may be marked "R-Y, B-Y, Y" or "Cr, Cb, Y" instead of "PR, PB, Y" depending on the manufacturer. The number and position of terminals may vary depending on the TV set. Please refer to the user's manual of your TV.
- The Component Video Out jacks only output video from the DVD player. To view video from the VCR, you must have the Video Out (Yellow) or RF Out jack connected.
- You can hear sound from **LINE OUT AUDIO** or **AUDIO OUT** (red and white) terminals for Component connection. VCR audio only outputs through Line Out Audio jacks (Red, White).

CONNECTIONS

Connection to a TV (Progressive)

1

Using component video cables (not included), connect the **COMPONENT VIDEO OUT** terminal on the rear of the DVD-VCR to the **COMPONENT IN** terminal of your TV.

2

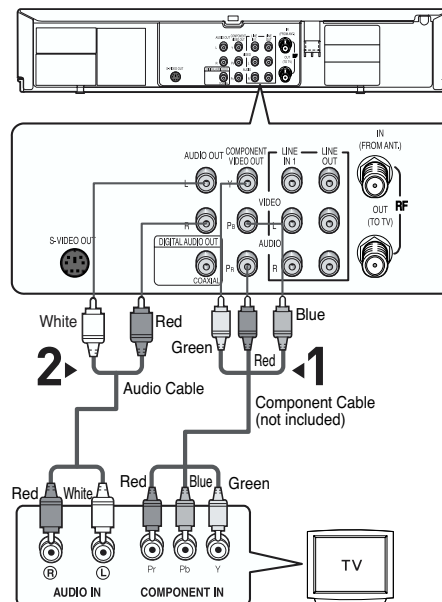
Using the audio cables, connect from the **AUDIO OUT** or **LINE OUT AUDIO (red and white)** terminals on the rear of the DVD-VCR to the **AUDIO (red and white) IN** terminals of your TV. Turn on the DVD-VCR and TV.

3

With the unit in stop mode, set the Alt video output to Component: Progressive in the Display Setup menu (see pages 61~62) or press the **PROGRESSIVE** button on the remote control. Progressive Scan mode prompt screen appears. Then press ENTER and progressive will be output.

4

Press the input selector on your TV remote control until the **Component** signal from the DVD-VCR appears on the TV screen.



To see the progressive video output,

- Consult your TV User's Manual to find out if your TV supports Progressive Scan. If Progressive Scan is supported, follow the TV User's Manual regarding Progressive Scan settings in the TV's menu system.
- Depending on your TV, the connection method may differ from the illustration above.

Note

What is "Progressive Scan"?

Progressive scan has twice as many scanning lines as the interlace output method. Progressive scanning method provides better and clearer picture quality.

The Component Video jacks only output video from the DVD player. To view video from the VCR, you must have the Video Out (yellow) or RF Out jack connected.

Connection to an Audio System

Connection to an Audio System (2 Channel Amplifier)

1

Using the audio cables, connect the **(LINE) AUDIO (red and white) OUT** terminals on the rear of the DVD-VCR to the **AUDIO (red and white) IN** terminals of the Amplifier.

2

Using the video signal cable(s), connect the **VIDEO, S-VIDEO or COMPONENT OUT** terminals on the rear of the DVD-VCR to the **VIDEO, S-VIDEO or COMPONENT IN** terminal of your TV as described on pages 15 to 18.

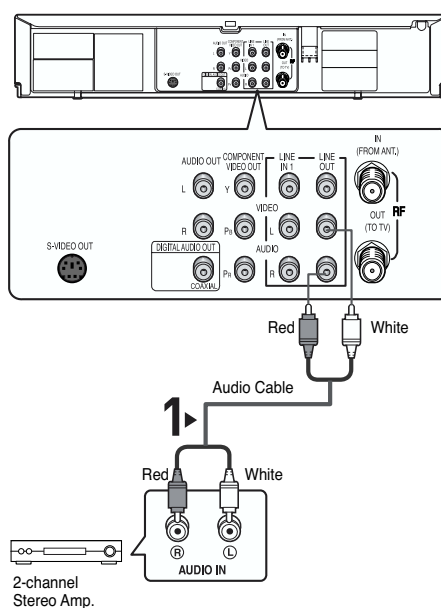
3

Turn on the DVD-VCR, TV, and Amplifier.

4

Press the input select button of the Amplifier to select the **External input** in order to hear sound from the DVD-VCR.

Refer to your Amplifier's user manual to set the Amplifier's audio input.



Notes

- Please turn the volume down when you turn on the Amplifier. Sudden loud sound may cause damage to the speakers and your ears.
- Please set the audio in the menu screen according to the Amplifier. (See pages 59 to 60)
- The position of terminals may vary depending on the Amplifier. Please refer to your Amplifier's user manual.
- You can also connect the amplifier using AUDIO OUT (red and white) terminals from the DVD-VCR.

CONNECTIONS

Connection to an Audio System (Dolby digital, MPEG2 or DTS Amplifier)

1

Using a coaxial cable (not included), connect the **DIGITAL AUDIO OUT (COAXIAL)** terminal on the rear of the DVD-VCR to the **DIGITAL AUDIO IN (COAXIAL)** terminal of the Amplifier.

2

Using the video signal cable(s), connect the **S-VIDEO** or **COMPONENT OUT** terminals on the rear of the DVD-VCR to the **S-VIDEO** or **COMPONENT OUT** terminal of your TV as described on pages 15 to 18.

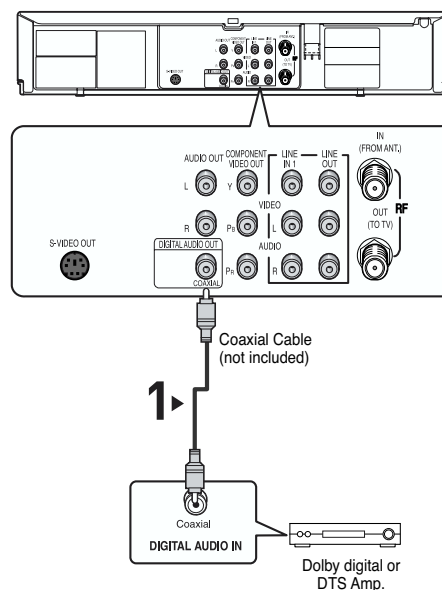
3

Turn on the DVD-VCR, TV, and Amplifier.

4

Press the input select button of the Amplifier to select external input in order to hear sound from the DVD-VCR.

Refer to your Amplifier's user manual to set the Amplifier's audio input.



Notes

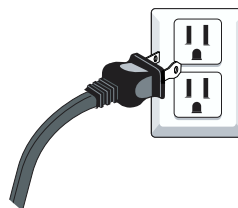
- When you connect the DVD-VCR to DTS Amplifier and play a DTS disc, set the DTS to On in Audio Setup menu. If it is set to Off, sound will not be heard, or there will be a loud sound.
- Please turn the volume down when you turn on the Amplifier. Sudden loud sound may cause damage to the speakers and your ears.
- Please set the audio in the menu screen according to the Amplifier. (See pages 59 to 60)
- The position of terminals may vary depending on the Amplifier. Please refer to the user's manual of the Amplifier.

CONNECTIONS

Connecting a Power Cord & Auto Setup

1

Your DVD-VCR's power cord should be plugged into a standard 120V/60Hz wall outlet. Avoid pressing any buttons on the remote control or on the unit during Auto Setup. While your DVD-VCR is running Auto Setup, "Auto" will blink. When Auto Setup is complete, the current time will be displayed on the front panel. If Auto Setup fails to locate a channel to set the clock, you should set the clock manually. (See pages 23 to 24.)



You must have the antenna/cable connected for the Auto Clock to set

2

Turn on the power by pressing the **POWER** button on the remote control or  on the front panel.

3

Turn on your TV by pressing the **POWER** button on the TV remote control.

4

Press the input selector on your TV remote until the signal from the DVD-VCR appears.

Chapter 3

INITIAL SETUP

Selecting a Menu Language

To change the on-screen MENU language to English, French or Spanish, follow these steps.

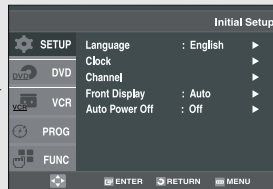
1

Press the **MENU** button.



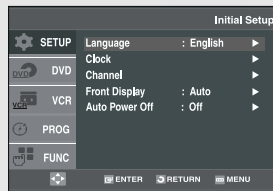
2

Press the **▲/▼** buttons to select **Setup**, then press the **▶** or **ENTER** button.



3

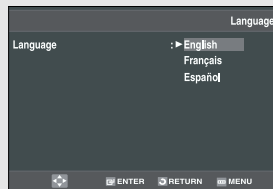
Press the **▲/▼** buttons to select **Language**, then press the **▶** or **ENTER** button.



4

Press the **▲/▼** buttons to select the appropriate language : English, Français or Español.

Press the **ENTER** button.



5

Press the **MENU** button to exit.



INITIAL SETUP

Setting the Clock

This menu is used to set the current time. You need to set the time to use timer recording.

Setting the Clock Automatically

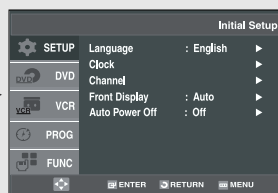
1

Press the **MENU** button.



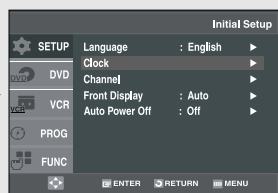
2

Press the **▲/▼** buttons to select **Setup**, then press the **▶** or **ENTER** button.



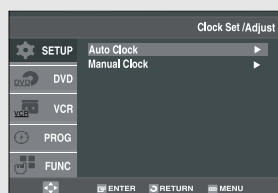
3

Press the **▲/▼** buttons to select **Clock**, then press the **▶** or **ENTER** button.



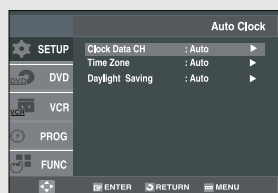
4

Press the **▲/▼** buttons to select **Auto Clock**, then press the **▶** or **ENTER** button.



5

Select a channel that carries a time signal by using the **▶** or **ENTER** button.
(Auto, 1, 2, ..., 125)



Notes

You must have the antenna connected to set the Auto Clock. (See pages 13~14)

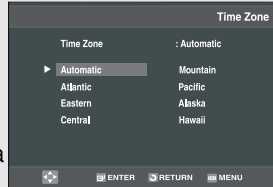
The Clock will be automatically set when you turn off the DVD-VCR.

INITIAL SETUP

6

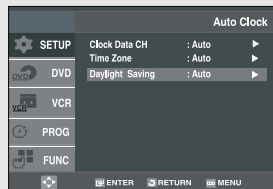
Press the ▲/▼ buttons to select **Time Zone**, then press the ► or ENTER button.

Select the time zone of your area by using the ▲/▼, ◀/▶ buttons, then press the ENTER button. Select **Automatic** to set the time zone automatically.



7

Press the ▲/▼ buttons to select **Daylight Saving**, then press the ► or ENTER button to select **Yes**, **No** or **Auto**.



8

Press the **MENU** button to exit.



Note

If your clock is set to the wrong Time Zone or Daylight Saving, you can adjust these settings without turning off the Auto Clock Set function.

Setting the Clock Manually

If Auto Setup fails to set the DVD-VCR's internal clock by locating a local TV station, follow these steps to set the data and time manually.

Note: For accurate Timer Recording, your DVD-VCR's internal clock must be set correctly.

1

Press the **MENU** button.



INITIAL SETUP

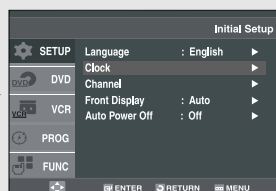
2

Press the ▲/▼ buttons to select **Setup**, then press the ► or **ENTER** button.



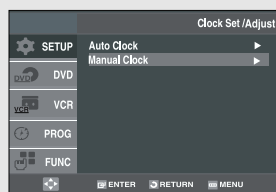
3

Press the ▲/▼ buttons to select **Clock**, then press the ► or **ENTER** button.



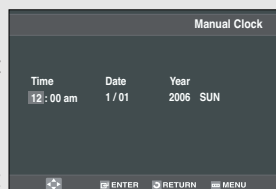
4

Press the ▲/▼ buttons to select **Manual Clock**, then press the ► or **ENTER** button.



5

Use the ◀/▶ buttons to select each of the following options, then use the ▲/▼ buttons to set each option. Press the **ENTER** button to set the clock.



6

Press the **MENU** button to exit.



INITIAL SETUP

Memorizing the Channels

Selecting the Video Signal-source

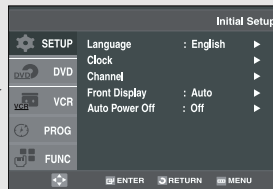
This feature allows you to manually set the DVD-VCR's tuner band to Antenna or Cable, whichever you connected to the Antenna In jack during initial setup.

Use this setting only if Auto Setup detected the incorrect tuner band, i.e. channels are coming in on the wrong channel numbers.

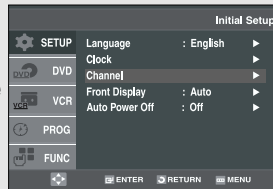
1
Press the **MENU** button.



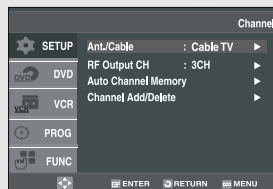
2
Press the **▲/▼** buttons to select **Setup**, then press the **▶** or **ENTER** button.



3
Press the **▲/▼** buttons to select **Channel**, then press the **▶** or **ENTER** button.



4
Press the **▶** or **ENTER** button to select **Cable TV** or **Antenna**.



- ◀ - Cable TV: Select this if the DVD-VCR is connected to Cable TV.
- Antenna: Select this if the DVD-VCR is connected to an indoor or outdoor VHF/UHF antenna.

INITIAL SETUP

Storing Channels in Memory (Automatic Method)

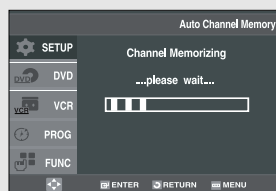
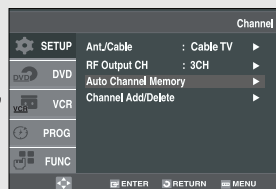
Auto Channel Memory will automatically seek and store all active channels in your area.

5

Press the ▲/▼ buttons to select **Auto Channel Memory**, then press the ► or **ENTER** button.

The DVD-VCR will automatically search for all available channels in the selected tuner band. This procedure may take a few minutes to complete.

When finished, the lowest channel found will be displayed.



Note

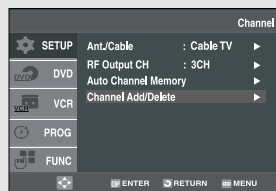
Do not turn the power off when Auto Channel Memory function is proceeding. If the power is off, Auto Channel Memory should be reset.

Adding and Erasing Channels (Manual Method)

Use this feature if Auto Channel Search missed a channel that you would like to add, or to delete a channel you wish to remove.

6

Press the ▲/▼ buttons to select **Channel Add/Delete**, then press the ► or **ENTER** button.



7

Press the CH ▲/▼ buttons to tune in the channel number you wish to add or delete. Use the number button to select the channel directly.



8

Press the ◀ or ▶ button to delete the channel from your channel list or to add.

Repeat steps 7 to add or to delete additional channels.

Press the **MENU** button to exit.



Note

Use the number button to move the channel directly.

INITIAL SETUP

Selecting the RF Output Channel

Use this feature if the DVD-VCR is connected to your TV using the RF antenna cable.

1

Press the **MENU** button.



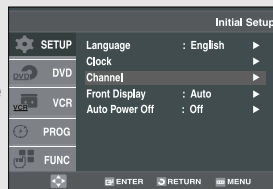
2

Press the ▲/▼ buttons to select **Setup**, then press the ► or **ENTER** button.



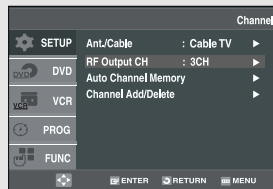
3

Press the ▲/▼ buttons to select **Channel**, then press the ► or **ENTER** button.



4

Press the ▲/▼ buttons to select **RF Output CH**, then press the ► or **ENTER** button to select **3CH** or **4CH**.



5

Press the **MENU** button to exit.



INITIAL SETUP

Selecting the Front Panel Display

You can set the Front Panel Display to be bright all the time, dim all the time, or to automatically dim during power off.

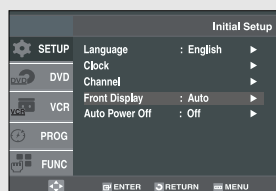
- 1**
Press the **MENU** button.



- 2**
Press the **▲/▼** buttons to select **Setup**, then press the **▶** or **ENTER** button.



- 3**
Press the **▲/▼** buttons to select **Front Display**, then press the **▶** or **ENTER** button to select **Auto**, **Bright** or **Dim**.



- 4**
Press the **MENU** button to exit.



- **Auto:** Front Panel Display will dim automatically during power off.
- **Bright:** Front Panel Display will be bright all the time.
- **Dim:** Front Panel Display will be dim all the time.

INITIAL SETUP

Setting the Power Off Automatically

This feature automatically turns off your DVD-VCR if no signal is received and you do not press any buttons for the selected time.

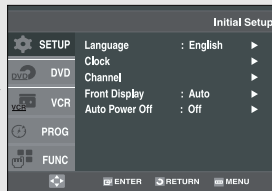
1

Press the **MENU** button.



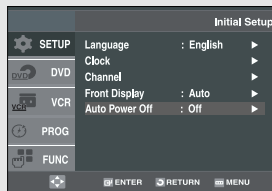
2

Press the ▲/▼ buttons to select **Setup**, then press the ► or **ENTER** button.



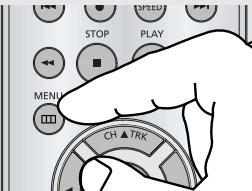
3

Press the ▲/▼ buttons to select **Auto Power Off**, then press the ► or **ENTER** button to select **Off**, **1Hr** or **2Hr**.



4

Press the **MENU** button to exit.



- Off: Auto power off is disabled.
- 1Hr: DVD-VCR will auto shut off 1 hour after the last button is pressed or no signal is received.
- 2Hr: DVD-VCR will auto shut off 2 hours after the last button is pressed or no signal is received.

Chapter 4

DVD OPERATIONS

Playing a Disc

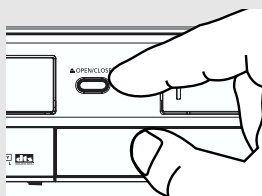
Before Play

- Turn on your TV and set it to the correct Video Input on your TV's remote control.
- If you connected an external Audio System, turn on your Audio System and set it to the correct Audio Input.

Playback

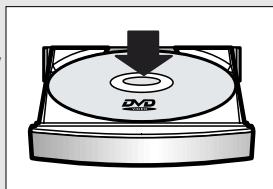
1

Press the **OPEN/CLOSE** (▲) button on the front panel.



2

Place a disc gently into the tray with the disc's label facing up.



3

Press the **▶||** (Play/Pause) button on your remote control or on the front panel.

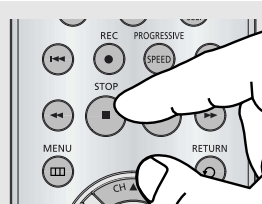
Most discs will start to play back as soon as the tray closes.



4

Stopping Play

Press the **■** (Stop) button during play.



◀ Stop/Resume

- Press the **■** (Stop) button once to stop playback. To resume the DVD/CD from the point where the disc stopped, press the **▶||** (Play/Pause) button.
- Press the **■** (Stop) button twice to completely stop playback. The next time you press the **▶||** (Play/Pause), the disc will start over from the beginning.

DVD OPERATIONS

5

Pausing Play

Press the **▶||** (Play/Pause) button on your remote control or on the front panel during play.



- ◀ - Screen stops, no sound.
- To resume, press the **▶||** (Play/Pause) button once again.

Note

If the player is left for about 5 minutes in pause mode, it will stop.

6

Step Motion Play (Except CD)

Press the **F.ADV** button on the remote control during play.



- ◀ - Each time the button is pressed, a new frame will appear.
- No sound is heard during STEP mode.
- Press the **▶||** (Play/Pause) button to resume normal play.
- You can only perform step motion play in the forward direction.

7

Slow Motion Play (Except CD)

Press the **▶▶** (Forward) button to choose the play speed between 1/8, 1/4 and 1/2 of normal during PAUSE or STEP mode.



- ◀ - No sound is heard during slow mode.
- Press the **▶||** (Play/Pause) button to resume normal play.
- Reverse slow motion play will not work.

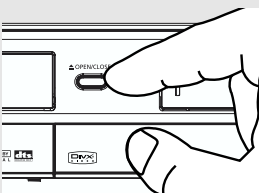
Note

This (⊘) icon indicates an invalid button press.

8

Removing Disc

Press the **OPEN/CLOSE** (▲) button on the front panel.



DVD OPERATIONS

Using the Search and Skip Functions

During play, you can search quickly through a chapter or track, and use the skip function to jump to the next selection.

Searching through a Chapter or Track

During play, press the ◀◀/▶▶ (Search) buttons on the remote control.



◀ If you want to search at a faster speed on the DVD or CD, press the button.

DVD	2X, 8X, 32X, 128X
CD	2X, 4X, 8X

Notes

- The speed marked in this function may be different from the actual playback speed.
- No sound is heard during search mode (Except CD).

Continuous Search Mode

During play, press and hold the ◀◀/▶▶ (Search) buttons on your remote control or on the front panel.
The picture will search backward or forward at the 4X speed.
If you release the ◀◀/▶▶ (Search) buttons, the picture will go back to playback mode.

Skipping Tracks

During play, press the ◀◀/▶▶ (Skip) buttons.



- When playing a DVD, if you press the ▶▶ (Skip) button, it moves to the next chapter. If you press the ◀◀ (Skip) button, it moves to the beginning of the chapter. One more press makes it move to the beginning of the previous chapter.

DVD OPERATIONS

Using the Display Function

When Playing a DVD/CD/MPEG4

1

During play, press the **INFO** button on the remote control.



◀ You can select information in the DVD Function menu by pressing the MENU button.

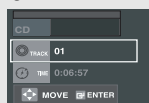
2

Press the ▲/▼ buttons to select the desired item.

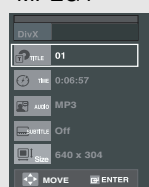
DVD



CD

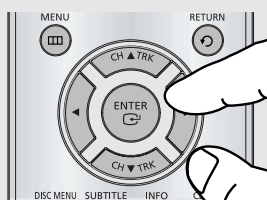


MPEG4



3

Press the ▲/▼ buttons to make the desired setup and then press the **ENTER** button.

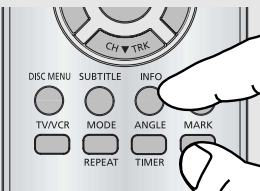


◀ You may use the number buttons of the remote control to directly access a title, chapter or time to start the playback from a desired time.

DVD OPERATIONS

4

To exit the menu, press the **INFO** button again.



Note

	To access the desired title when there is more than one in the disc. For example, if there is more than one movie on a DVD, each movie will be identified.
 	Most DVD discs are recorded in chapters so that you can quickly find a specific passage (similar to tracks on an audio CD).
	Allows playback of the film from a desired time. You must enter the starting time as a reference. The time search function does not operate on some discs.
	Refers to the film's soundtrack language. In the example, the soundtrack is played in English 5.1CH. A DVD disc can have up to eight different soundtracks. The MP3, AC3 and WMA are supported. (DivX)
	Refers to the subtitle languages available in the disc. You will be able to choose the subtitle languages or, if you prefer, turn them off from the screen. A DVD disc can have up to 32 different subtitles.
	(DivX) File Size has a relationship with resolution of a title. The larger file size is, the higher resolution is displayed. If the file resolution is small, it scales up automatically. So you can see the larger screen.

DVD OPERATIONS

Using the Disc and Title Menu (DVD)

1

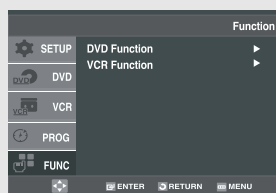
During playback of a DVD disc, press the **MENU** button on the remote control.



◀ MENU button can be used to access Disc and title menus on a DVD during playback.

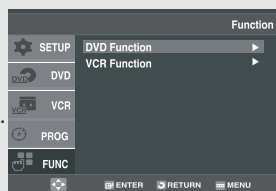
2

Press the ▲/▼ buttons to select **Function**, then press the ► or **ENTER** button.



3

Press the ▲/▼ buttons to select **DVD Function**, then press the ► or **ENTER** button.



4

Press the ▲/▼ buttons to select **Title Menu** or **Disc Menu** then press the ► or **ENTER** button.



Notes

- Depending on the disc, the Disc Menu or Title Menu may not work.
- You can also use the Disc Menu by using the DISC MENU button on the remote control.
- Title Menu will only be displayed if there are at least two titles on the disc.
- The Title Menu works only with DVD.

DVD OPERATIONS

Using the Function Menu (DVD)

1

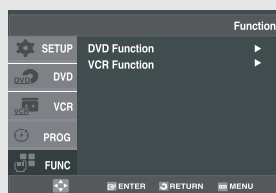
During the playback of a DVD disc, press the **MENU** button on the remote control.



◀ MENU button can be used to access DVD functions such as Information, Zoom, Bookmark, Repeat and EZ view menu during DVD playback.

2

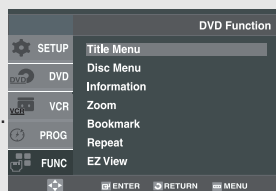
Press the ▲/▼ buttons to select **Function**, then press the ► or **ENTER** button.



3

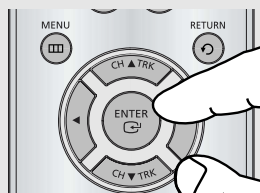
Press the ▲/▼ buttons to select **DVD Function**, then press the ► or **ENTER** button.

- Information
(See pages 34 to 35)
- Zoom (See page 47)
- Bookmark
(See pages 45 to 46)
- Repeat (See pages 38 to 39)
- EZ View
(See pages 41 to 42)



4

Press the ▲/▼ buttons to select one of the five functions. Then press the ► or **ENTER** button to access the function.



◀ You can also directly select these functions using their respective buttons on the remote control.

- INFO
- MARK
- REPEAT

Repeat Play

Repeat the current track, chapter, title, a chosen section (A-B), or all of the disc.

When playing a DVD/CD

1

During play, press the **REPEAT** button on the remote control. Repeat screen appears.



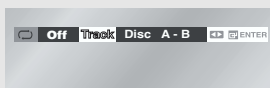
2

Press the ◀/▶ buttons to select **Chapter**, **Title** or **A-B**, then press the **ENTER** button.

DVD



CD



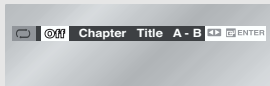
- ◀ DVD repeats play by chapter or title, and CD repeats play by track or disc.
- Chapter: repeats the chapter that is playing.
 - Title: repeats the title that is playing.
 - Track: repeats the track that is playing.
 - Disc: repeats the disc that is playing.
 - A-B: repeats a segment of the disc that you select.

3

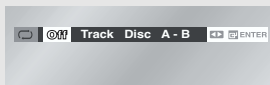
To return to normal play, press the **REPEAT** button again, then press the ◀/▶ buttons to select **Off** and press **ENTER** button.

Press the **CLEAR** button in order to stop repeat play.

DVD



CD



Note

- Depending on a disc, the Repeat function may not work.