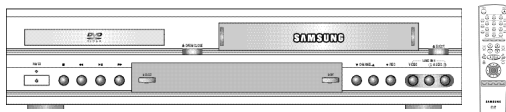




DVD-V8000

Instruction Manual



DVD
VIDEO **VHS** **Hi-Fi**

GB

WARNING:

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Do not open the cabinet; dangerous high voltage is present. Refer servicing to qualified personnel only.

WARNING:

TO AVOID HAZARDOUS EXPOSURE TO INVISIBLE LASER RADIATION, DO NOT OPEN OR REMOVE/DEFEAT LASER TRANSPORT PROTECTIVE HOUSING.

USER/INSTALLER CAUTION:

Your authority to operate this FCC certified equipment could be voided if you make changes or modifications not expressly approved by the manufacturer, who is responsible for compliance with Part 15 FCC rules.

NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electronic Code 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.

Copy Notification

Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or exhibition of copyrighted motion pictures and videotapes. (Title 17, United States Code, Sections 501 and 506).

Macrovision Notification

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

CAUTION:

To prevent fire, shock hazard, or annoying interference, use only the recommended accessories. To prevent electric shock, do not use this (polarized) plug with an extension cord, receptacle, or other outlet unless the blades can be fully inserted to prevent blade exposure. To reduce the risk of electric shock, do not remove the unit cover or back. There are no serviceable parts inside. Refer servicing to qualified personnel only.

CUIDADO:

Para prevenir incendio, riesgo de choque, o interferencia enfadosa, use solamente los accesorios recomendados. Para prevenir electrochoque, no use este enchufe (polarizado) con un cordón de extensión, toma de corriente, o cualquier otra toma a menos que los dientes puedan ser completamente insertados para prevenir exposición de los dientes. Para reducir el riesgo de descarga eléctrica, no remueva la cubierta o la parte posterior del equipo. Dentro del equipo no hay partes que requieren servicio. Diríjase solamente a personal calificado cuando requiera servicio.

ATTENTION:

Pour éviter les incendis, risque de chocs, ou interférences fâcheuses, employer seulement les accessoires recommandés. Pour éviter les chocs électriques, ne pas employer cette prise (polarisée) avec un rallonge, une prise de courant ou une autre sortie de courant à moins que les lames peuvent être insérées à fond pour l'exposition des lames. Pour réduire les risques de chocs électriques, ne pas retirer le couvercle ou l'arrière du module. Il n'y a pas de pièce utilisable à l'intérieur. Ne faire effectuer l'entretien que par un personnel qualifié.

Important Safety Instructions

- 1. READ INSTRUCTIONS** - All the safety and operating instructions should be read before the DVD-VCR is operated.
- 2. RETAIN INSTRUCTIONS** - The safety and operating instructions should be retained for future reference.
- 3. HEED WARNINGS** - All warnings on the DVD-VCR and in the operating instructions should be adhered to.
- 4. FOLLOW INSTRUCTIONS** - All operating and maintenance instructions should be followed.
- 5. CLEANING** - Unplug this DVD-VCR from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a dry cloth for dusting cabinet.
- 6. ATTACHMENTS** - Do not use attachments not recommended by the product manufacturer, as they may be hazardous.
- 7. WATER & MOISTURE** - Do not use this DVD-VCR near water—for example, near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool or the like.
- 8. ACCESSORIES** - Do not place this DVD-VCR on an unstable cart, stand, tripod, bracket or table. The DVD-VCR may fall, causing serious injury to a child or adult, and serious damage to the unit. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the DVD-VCR. Any mounting of the unit should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
- 8a.** An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
- 9. VENTILATION** - Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the DVD-VCR and to protect it from overheating. These openings must not be blocked or covered. Never place your VCR on a bed, sofa, rug or other similar surface, on or near a radiator or heat register. This DVD-VCR should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 10. POWER SOURCES** - This DVD-VCR should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home consult your appliance dealer or local power company.
- 11. POWER-CORD PROTECTION** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords of plugs, convenience receptacles, and the point where they exit from the DVD-VCR.
- 12. OUTDOOR ANTENNA GROUNDING** - If an outside antenna or cable system is connected to the DVD-VCR, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See figure below.



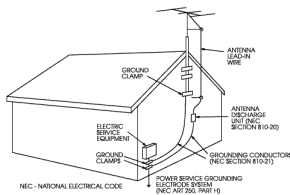
PORTABLE CART WARNING
(Symbol provided by RETAC)

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- 13. LIGHTNING** - For added protection of this DVD-VCR during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the DVD-VCR due to lightning and power line surges.
- 14. POWER LINES** - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, where it can fall into such power lines or circuits. When installing an outside antenna system extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- 15. OVERLOADING** - Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
- 16. OBJECTS AND LIQUIDS** - Never push objects of any kind into this DVD-VCR through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquids of any kind onto the unit. Should spillage occur, unplug the DVD-VCR and have it checked by a technician before use.
- 17. SERVICING** - Do not attempt to service this DVD-VCR yourself as opening or removing covers may expose you to a dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- 18. DAMAGE REQUIRING SERVICE** - Unplug this DVD-VCR from the wall outlet and refer servicing to qualified service personnel under the following conditions:
- When the power supply cord or plug is damaged.
 - If any liquid has been spilled onto or objects have fallen into the DVD-VCR.
 - If the DVD-VCR has been exposed to rain or water.
 - If the DVD-VCR does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the DVD-VCR to its normal operation.
 - If the DVD-VCR has been dropped or the cabinet has been damaged.
 - When the DVD-VCR exhibits a distinct change in performance—this indicates a need for service.
- 19. REPLACEMENT PARTS** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or those having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
- 20. SAFETY CHECK** - Upon completion of any service or repairs to this DVD-VCR ask the service technician to perform safety checks to determine that the DVD-VCR is in safe operating order.
- 21. HEAT** - This DVD-VCR should be situated away from heat sources such as radiators, stoves, or other products (including amplifiers) that produce heat.



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Feature Summary

System Features

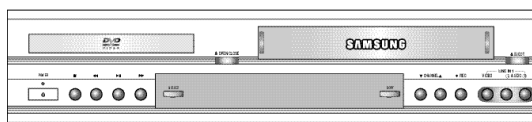
- Complete versatility to play DVD, VCDs, audio CDs or VHS Tapes.
- Watch a DVD while recording a TV show to the VCR.
- A/V switching between TV, VCR and DVD deck with TV view button for ease of use.
- Remote controls both DVD and VCR decks.
- Composite, S-Video and Component video outputs for high connectivity and optimum performance.
- RF inputs and outputs for connection to all TVs--new or old.
- Child Lock.
- English/French/Spanish on-screen programming.
- Records from DVD to VHS (unless DVD is copy protected with Macrovision).

DVD Features

- 10-bit video digital to analog converter and 27MHz advanced digital filter.
- Playback of 96KHz/24-bit sources.
- DTS digital output for DTS-enhanced DVDs.
- Playback MP3 files from CD-ROM.
- Continued audio during 2x speed playback.

VCR Features

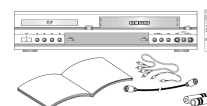
- Hi-Fi Stereo VCR.
- 4 heads for superior slow motion and stop action.
- Playback of S-VHS tapes at better than standard resolution.
- VISS Index Search/Scan, Zero Return, Direct Time Search, Blank Search.
- 16-event/1 year timer recording.
- Time remaining counter, real time counter.



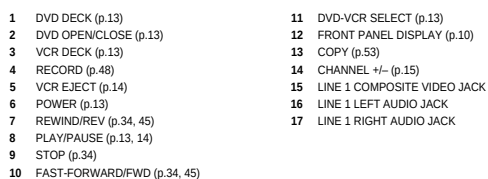
Unpacking

As you unpack, please check that the following items are included in your DVD-VCR packing case:

- DVD-VCR (1)
- User's Guide (1)
- RCA cable for Audio/Video connection (1)
- RF (Radio Frequency) Antenna Cable (1)
- Remote Control (1)
- 1.5V "AA" Batteries (2)



Remote Control Overview



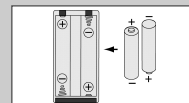
The diagram shows the rear panel of the DVD Player with the following connections:

- DVD & VCR Section:**
 - IN (FROM VCR):** Connects to pin 2.
 - LINE OUT:** Connects to pin 4.
 - AUDIO:** Connects to pin 5.
 - LINE OUT:** Connects to pin 6.
 - COMPONENT VIDEO OUT:** Includes Y (pin 7), Pb (pin 8), and Pr (pin 9).
 - S-VIDEO OUT:** Connects to pin 10.
 - OUT (TO TV):** Connects to pin 3.
 - CH:** Connects to pin 4.
 - VIDEO:** Connects to pin 5.
- Digital Audio Out (Dolby Digital):** Connects to pins 9 and 10.

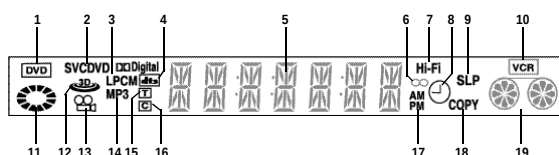
- | | | | |
|---|--|----|--------------------------------|
| 1 | RF ANTENNA INPUT | 7 | COMPONENT VIDEO OUT |
| 2 | RF OUT TO TV | 8 | S-VIDEO OUT |
| 3 | VCR TUNER CHANNEL SELECTOR | 9 | DIGITAL AUDIO OUT
(OPTICAL) |
| 4 | LINE IN 2 | 10 | DIGITAL AUDIO OUT(COAXIAL) |
| 5 | LINE OUT TO TV (COMPOSITE) | | |
| 6 | AUDIO LINE OUT TO TV
(S-VIDEO OR COMPONENT) | | |



- Remove the battery cover by pushing down on the thumb tab and sliding the cover in the direction of the arrow.
- Insert two 1.5V "AA" batteries as shown, paying attention to the correct polarities (+/-).
- When finished, slide the cover until it clicks back into place.



Front Panel Display



- 1 The DVD Deck is active
- 2 A DVD, CD, VCD, or SVCD is loaded
- 3 A disc with LPCM (Linear Pulse Code Modulation) audio is loaded
- 4 A DVD with a DTS soundtrack is loaded
- 5 The time, counter position, time remaining, or current deck status is displayed
- 6 The current TV show or video is broadcast in Stereo
- 7 The Hi-Fi track of a VHS tape is playing
- 8 A Timer Recording is programmed or in progress. If blinking there is an error. Also displays without the clock hands to indicate that a recording is in progress, and blinks when the VCR is in Pause mode.
- 9 The VCR Record Speed is set to SP or SLP
- 10 The VCR Deck is active
- 11 The status of the DVD deck is graphically displayed
- 12 3D Sound is active
- 13 The DVD has multiple angles to choose from
- 14 A CD with MP3 tracks is playing
- 15 The number to the right of the "T" symbol is the current title number
- 16 The number to the right of the "C" symbol is the current chapter number
- 17 The current time is a.m. or p.m.
- 18 DVD to VHS copy is in progress
- 19 The status of the VCR deck is graphically displayed

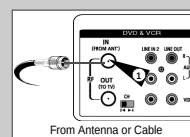
10

Basic Connections

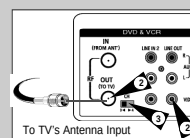
NOTES:

- **Advanced Connections are covered in Appendix A.**
- **Even if you plan to use the S-Video or Component Video Outputs, you MUST connect the DVD-VCR to your television with either the standard RF or the Line Out connection. This enables you to operate the DVD-VCR setup menus.**

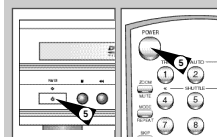
- 1 Connect Antenna/Cable to DVD-VCR**
Connect the RF antenna cable from your indoor/outdoor antenna or cable wall outlet to the IN (FROM ANT.) jack on the back panel of the DVD-VCR.
- 2 Connect DVD-VCR to TV**
Choose one of the following methods to connect the DVD-VCR to your TV:
RF Connection
Connect the supplied RF antenna cable from the OUT (TO TV) jack on the back panel of the DVD-VCR to your television's Antenna Input.
Line Connection
Connect an RCA-type audio/video cable (red, white, yellow) from the LINE OUT jacks on the back panel of the DVD-VCR to your television's Line In jacks. Use red for right audio, white for left audio, and yellow for video.
NOTE: It is recommended that you use the Line Connection if your TV is equipped with RCA jacks.
- 3 Set DVD-VCR Output Channel**
If you used the RF connection in Step 2, set the Channel switch on the back panel of the DVD-VCR to 3 or 4, whichever is not an active channel in your area.
- 4 Plug In DVD-VCR**
Connect the DVD-VCR power cord to a standard 100-240V/50-60Hz wall outlet.
- 5 Turn On DVD-VCR**
Press the POWER button on the remote control or on the DVD-VCR's front panel.
- 6 Turn On TV**
Press the POWER button on your TV.
- 7 Set TV to Channel 3 or 4 or Line**
Be sure to use the same channel you selected in Step 3. If you used the Line Connection, set your TV to its Line Input. The "LANGUAGE/LANGUE/DIOMA" menu should appear on the screen.



From Antenna or Cable



To TV's Antenna Input



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Language Set

GB

LANGUAGE/LANGUE/IDIOMA
1 English
2 Français
3 Español
Select=1-3
Chose=1-3
Elegir=1-3

The first time you connect your DVD-VCR, or after an extended power outage, you will be prompted to set the on-screen menu language.

1 Set the On-Screen

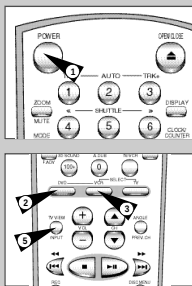
Menu Language

Press 1, 2, or 3 to select English, French, or Spanish. To change the language at any other time, see page 16.

Deck Control Buttons

The DVD-VCR uses one set of controls to operate both decks. The following buttons are helpful in successfully controlling each deck.

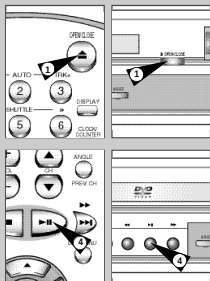
- POWER Button**
Press the POWER button on the remote control or front panel to turn on the DVD-VCR.
- DVD Button**
Press the DVD button on the remote control when you want to control the DVD deck.
 - The DVD indicator will light on the Front Panel Display to show that the DVD deck is selected.
- VCR Button**
Press the VCR button on the remote control when you want to control the VCR deck.
 - The VCR indicator will light on the Front Panel Display to show that the VHS deck is selected.
- DVD-VCR Toggle**
Press the DVD-VCR SELECT button on the front panel to toggle control between the DVD deck and the VCR deck.
- The TV VIEWButton**
Press the TV VIEWbutton repeatedly to cycle through all of your input sources, including the DVD, VCR, Tuner (Ch#), Line 1 (front AV input), and Line 2 (rear AV input).



Basic DVD Playback

Follow these instructions to playback a DVD.

- Open Disc Drawer**
Press the OPEN/CLOSE button on the remote control or front panel to automatically power on the DVD-VCR and open the disc drawer.
- Insert Disc**
Place the disc in the drawer with the label side of the disc facing up. If the disc has two sides, orient the disc with the desired label facing up.
- Close Disc Drawer**
Press the OPEN/CLOSE button on the remote control or front panel to close the disc drawer.
 - Make sure the DVD deck is selected.
- Play the DVD**
Press the ►|| (Play/Pause) button on the remote control or front panel.
 - Many discs will begin playback automatically when the disc drawer closes.
 - If the DVD has a disc menu, or more than one title, the disc menu may appear.
- Additional DVD Options**
 - For advanced DVD Setup options, see pages 23-33.
 - For special DVD Playback features, see page 34.

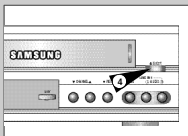
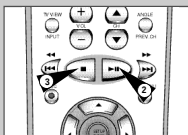
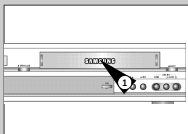


Basic VHS Playback



To play a videotape, simply insert it in the VHS deck and press the **Play** button. Tapes without Record Safety Tabs can be set to play automatically when inserted; see page 47.

- 1 **Insert VHS Tape**
Insert a standard VHS videotape into the VHS Deck.
• Power will turn on automatically when you insert a videotape.
- 2 **Play Tape**
Press the **▶||** (Play/Pause) button on the remote control or front panel. If the tape is missing the Record Safety Tab and Auto Play is turned on, the tape will begin to play automatically, see page 47.
- 3 **Stop Playback**
Press the **■** (Stop) button on the remote control or front panel.
- 4 **Eject Tape**
Press the **OPEN/CLOSE** button on the remote control or the **EJECT** button on the front panel.
- 5 **Additional VCR Options**
 - For special VCR Playback features, see pages 45-47.
 - For VCR Recording features, see pages 48-54.
 - For Timer Recording features, see pages 55-57.

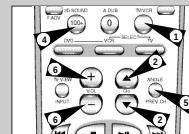


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Basic TV Tuner Operations

The following buttons are used when watching television via the DVD-VCR's built-in TV tuner.

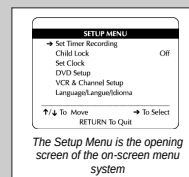
- 1 **TV/VCR**
Press to switch between your TV's tuner and the VCR's internal tuner.
- 2 **Channel Up/Down**
Press to change to the next or previous channel.
- 3 **0-9 Buttons**
Press to select channels directly.
- 4 **100+ Button**
Press to select channels 100 and higher. First, press the 100+ button, then press the remaining digits using the 0-9 buttons.
- 5 **Previous Channel**
Press to jump directly to the previously viewed channel.
- 6 **Volume**
Press to adjust the volume of the program you are watching.
• Also works in DVD and VCR mode.
- 7 **Display**
Press to display the channel you are watching.
• Also works in DVD and VCR mode.



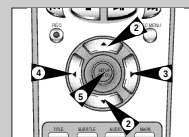
On-Screen Menu Navigation

The on-screen menu system allows you to set all functions for your DVD-VCR. The following buttons are used to open and navigate through the on-screen menu system.

- 1 **SETUP Button**
Press to access the DVD-VCR on-screen menu system.
- 2 **Up/Down**
Moves menu selection arrow up and down to cycle through menu options.
- 3 **Right**
Selects or changes menu options.
- 4 **Left**
Moves backward through menu options on certain screens.
- 5 **ENTER Button**
Press to confirm settings in certain menus.
- 6 **RETURN Button**
Returns to the last menu viewed or exits the menu system.
- 7 **CLEAR Button**
Clears Menu options on certain screens.



The Setup Menu is the opening screen of the on-screen menu system.



15

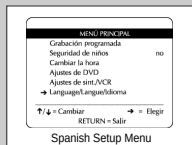
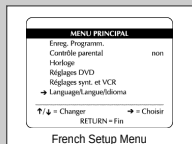
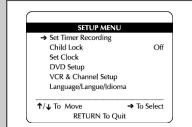
Menu Language

Follow these steps to change the on-screen menu language to English, French or Spanish.

- 1 Open "SETUP MENU"
Press the SETUP button.

- 2 Set "Language/Langue/Idioma"

Using the Up/Down buttons, move the selection arrow to "Language/Langue/Idioma," then push right button repeatedly to translate the menu screen into English, French or Spanish.



16

Manual Clock Set

If Auto Setup was unable to find a local TV station to set the DVD-VCR's internal clock, follow these instructions to set the date/time manually.

NOTE: It is important to set the clock for accurate Timer Recording.

- 1 Open "SETUP MENU"
Press the SETUP button.

- 2 Select "Set Clock"

Using the up/down, move the selection arrow to "Set Clock," then push right to select.

- 3 Set the Clock

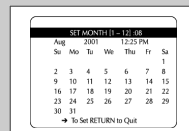
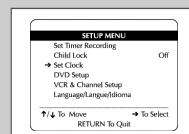
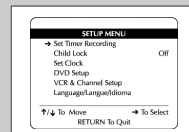
Push the left/right to select each of the following options, then push up/down (or use the 0-9 buttons) to set each option:

- **Set Month** – Enter the month as a 2-digit number; i.e. for January, press "01".
- **Set Year** – Enter the year as a 2-digit number; i.e. for 2001, press "01".
- **Set Day** – Enter the day as a 2-digit number; i.e. for the ninth, press "09".
- **Set Hour** – Enter the hour as a 2-digit number; i.e. for 12:00, press "12".
- **Set Minute** – Enter the minute as a 2-digit number; i.e. for 00:25, press "25".
- **Set AM/PM** – Enter 1 for AM and 2 for PM.

- 4 Confirm Settings

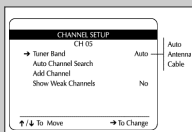
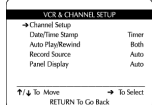
Press the RETURN button to save your clock settings and return to the Setup menu.

- Press Return again to exit.



17

Tuner Band Setting



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 Open "SETUP MENU"

Press the SETUP button.

2 Select "VCR & Channel Setup"

Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.

3 Select "Channel Setup"

Move the selection arrow to "Channel Setup," then push right to select.

4 Select "Tuner Band"

Move the selection arrow to "Tuner Band," then push right to select from the following options:

- Auto - Automatically detects the Tuner Band.
- Antenna - Indicates that the DVD-VCR is connected to an indoor or outdoor VHF/UHF antenna.
- Cable - Indicates that the DVD-VCR is connected to either Community Antenna Television (i.e., cable TV without a cable box).

Auto Channel Search

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

1 Open "SETUP MENU"

Press the SETUP button.

2 Select "VCR & Channel Setup"

Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.

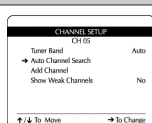
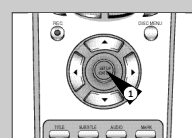
3 Select "Channel Setup"

Move the selection arrow to "Channel Setup," then push right to select.

4 Run "Auto Channel Search"

Move the selection arrow to "Auto Channel Search," then push right to select.

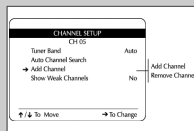
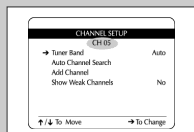
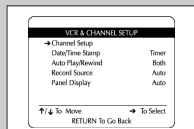
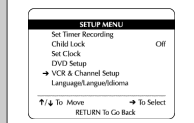
- The DVD-VCR will automatically search for all available channels in the selected Tuner Band. This procedure may take a few minutes to complete.
- When finished, the lowest channel found will be displayed.



Add/Remove Channels

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

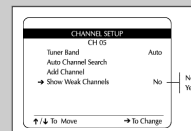
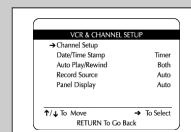
- 1 Open "SETUP MENU"**
Press the SETUP button.
- 2 Select "VCR & Channel Setup"**
Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.
- 3 Select "Channel Setup"**
Move the selection arrow to "Channel Setup," then push right to select.
- 4 Select Channel to Add/Remove**
Use the 0-9 buttons to tune in the channel number you wish to add or remove.
- 5 Select "Add/Remove Channel"**
Move the selection arrow to "Add/Remove Channel," then push right to add/remove the channel from your channel list.
 - Repeat steps 4 and 5 to add or remove additional channels.



Show Weak Channels

The "Show Weak Channels" feature allows you to view channels with weak reception rather than substitute a blue screen.

- 1 Open "SETUP MENU"**
Press the SETUP button.
- 2 Select "VCR & Channel Setup"**
Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.
- 3 Select "Channel Setup"**
Move the selection arrow to "Channel Setup," then push right to select.
- 4 Select "Show Weak Channels"**
Move the selection arrow to "Show Weak Channels," then push right to select from the following options:
 - No - Channels with poor reception will be replaced by a blue screen.
 - Yes - Channels with poor reception will be displayed.



Tuner Audio

Today most television programs are broadcast in stereo. However, there are times you may wish to set the Tuner Audio to Mono, Stereo, SAP, or TV+SAP.

1 Display Tuner Audio Status

Press the AUDIO button while the TV View is set to the Tuner (i.e., when you are watching TV).

- The current Tuner Audio status will appear in the upper right corner of the screen.

2 Select Tuner Audio

Push the up/down to select from the following options, then press Enter to select:

- Mono** - Monaural (single-channel) audio. Combines the left and right audio signals into one channel. Use when connecting the VCR to a Mono output device, such as a monitor.
- Stereo** - Two-channel MTS stereo sound split into left and right channels. When a show is not broadcast in stereo, the sound reverts to Mono.
- SAP** - Second Audio Program. Optional audio signal, often used to transmit a second language, news, or weather broadcasts.
- TV+SAP** - Delivers Mono from the left channel and Second Audio Program (SAP) from the right channel. This is useful if you want to listen to a second language with headphones while the primary language is played through your TV speakers.

NOTE:

- Only audio selections which are available for the selected TV program will be displayed.
- SAP and TV+SAP is only available in America.

Child Lock

To prevent children from tampering with the DVD-VCR, Child Lock disables all front panel buttons so the DVD-VCR can only be operated with the remote control.

1 Open the "SETUP MENU"

Press the SETUP button.

2 Select "Child Lock"

Using the up/down, move the selection arrow to "Child Lock," then push right to select from the following options:

- Off** - Child Lock is disabled. The front panel buttons are fully functional.
- On** - Child Lock is enabled. The front panel buttons are locked.

You will need the remote control to disable Child Lock and resume normal front panel operation.

Front Panel Dimmer

You can set the Front Panel Display to be bright all the time, dim all the time, dim between the hours of 10:00 p.m. and 6:00 a.m., or off.

1 Open "SETUP MENU"

Press the SETUP button.

2 Select "VCR & Channel Setup"

Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.

3 Set "Panel Display"

Move the selection arrow to "Panel Display," then push right to select from the following options:

- Auto** - Front Panel Display will dim automatically during DVD playback, and between 10:00 p.m. and 6:00 a.m.; otherwise, it will be bright.
- Bright** - Front Panel Display will be bright all the time.
- Dim** - Front Panel Display will be dim all the time.
- Off** - Front Panel Display will be off.

TV Aspect Ratio

Set the aspect ratio (length x width) of your TV screen so the DVD player will display movies at the appropriate size for your television. Choose from standard, letterbox, or widescreen format.

1 Open "SETUP MENU"

Press the SETUP button.

2 Select "DVD Setup"

Using the up/down, move the selection arrow to "DVD Setup," then push right to select.

3 Set "TV Aspect Ratio"

Move the selection arrow to "TV Aspect Ratio," then push right to select from the following options:

- 4:3LB - 4:3 Letterbox**. This method displays the full width of the widescreen movie on a standard 4:3 television. As a result, black bars will appear at the top and bottom of the screen.
- 4:3PS - 4:3 Pan & Scan**. The familiar way of watching DVD and VHS movies, this method selectively crops (by panning and scanning to keep the most important part of the picture visible) wide screen movies to fit a standard 4:3 television screen.
- 16:9 - 16:9 Widescreen**. This method allows you to view the full 16:9 picture on a widescreen television.

Still Mode

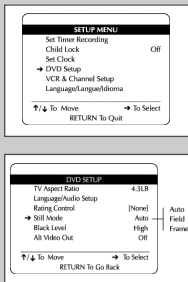
The **Still Mode** feature lets you set the default method of freezing a single image on the screen during DVD playback.

How It Works

Because each frame of a standard NTSC video image is made up of two fields (odd and even scan lines), there are two ways to freeze an image during DVD playback:

- **Frame** - Freezes both the odd and even scan lines that make up a single frame. Excellent for graphic detail, but may cause jitter in high motion scenes.
- **Field** - Doubles either the odd or the even scan lines. Prevents jitter, but at the sacrifice of fine detail.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Set "Still Mode"**
Move the selection arrow to "Still Mode," then push right to select from the following options:
 - **Auto** - Selects Still Mode automatically by detecting motion in the scene.
 - **Frame** - Select if you want to see fine text more clearly than in Auto mode.
 - **Field** - Select if the screen shakes in Auto mode.

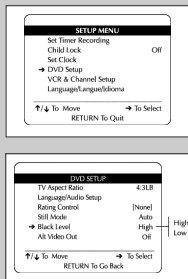


Black Level

The **Black Level** feature adjusts the reference level of black in the video signal to one of two choices:

- **High** - Standard NTSC black level. Yields consistent contrast through all sources.
- **Low** - Enhanced black level, for increased contrast during DVD playback.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Set "Black Level"**
Move the selection arrow to "Black Level," then push right to select from the following options:
 - **High** - Standard NTSC reference Black Level for consistent brightness/contrast across all sources.
 - **Low** - Enhanced Black Level for increased brightness/contrast when viewing DVDs.

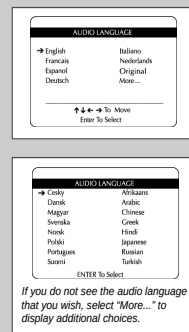
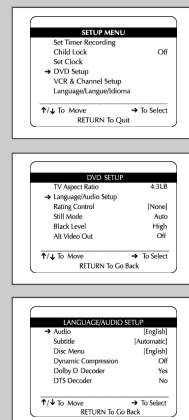


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Audio Language

Follow these steps to choose your preferred language for DVD audio soundtracks. The DVD-VCR will automatically default to the language you choose if it is available on a given DVD.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Select "Language/Audio Setup"**
Move the selection arrow to "Language/Audio Setup," then push right to select.
- 4 **Select "Audio"**
Move the selection arrow to "Audio," then push right to select.
- 5 **Set "Audio Language" Preference**
Move the selection arrow to your preferred language for DVD audio soundtracks, then push Enter to select.



If you do not see the audio language that you wish, select "More..." to display additional choices.

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Subtitle Language

Follow these steps to choose your preferred language for DVD subtitles. The DVD-VCR will automatically default to the language you choose if it is available on a given DVD.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Select "Language/Audio Setup"**
Move the selection arrow to "Language/Audio Setup," then push right to select.
- 4 **Select "Subtitle"**
Move the selection arrow to "Subtitle," then push right to select.
- 5 **Set "Subtitle Language" Preference**
Move the selection arrow to your preferred language for DVD subtitles, then push Enter to select.

GB

SETUP MENU

Set Timer Recording Off

Child Lock Off

Set Clock

→ DVD Setup

VCR & Channel Setup

Language/Audio/Menu

↑/↓ To Move → To Select

RETURN To Quit

DVD SETUP 4:3LB

TV Aspect Ratio

→ Language/Audio Setup

Rating Control [None]

Still Mode Auto

Black Level High

All Video Out Off

↑/↓ To Move → To Select

RETURN To Go Back

LANGUAGE/AUDIO SETUP

Audio [English]

→ Subtitle [Automatic]

Disc Menu [English]

Dynamic Compression Off

Dolby D Decoder Yes

DTS Decoder No

↑/↓ To Move → To Select

RETURN To Go Back

SUBTITLE LANGUAGE

→ Automatic Deutsch

English Italiano

Francis Nederlands

Espanol More...

↑/↓ ← → To Move

Enter To Select

SUBTITLE LANGUAGE

Cesky Afrikaans

→ Dansk Arabic

Magyar Chinese

Svenska Greek

Norsk Hindi

Polski Japanese

Portugues Russian

Svensk Turkish

ENTER To Select

If you do not see the subtitle language that you wish, select "More..." to display additional choices.

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Disc Menu Language

Follow these steps to choose your preferred language for DVD disc menus. The DVD-VCR will automatically default to the language you choose if it is available on a given DVD.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Select "Language/Audio Setup"**
Move the selection arrow to "Language/Audio Setup," then push right to select.
- 4 **Select "Disc Menu"**
Move the selection arrow to "Disc Menu," then push right to select.
- 5 **Set "Disc Menu Language" Preference**
Move the selection arrow to your preferred language for DVD disc menus, then push Enter to select.

GB

SETUP MENU

Set Timer Recording Off

Child Lock Off

Set Clock

→ DVD Setup

VCR & Channel Setup

Language/Audio/Menu

↑/↓ To Move → To Select

RETURN To Quit

DVD SETUP 4:3LB

TV Aspect Ratio

→ Language/Audio Setup

Rating Control [None]

Still Mode Auto

Black Level High

All Video Out Off

↑/↓ To Move → To Select

RETURN To Go Back

LANGUAGE/AUDIO SETUP

Audio [English]

Subtitle [Automatic]

→ Disc Menu [English]

Dynamic Compression Off

Dolby D Decoder Yes

DTS Decoder No

↑/↓ To Move → To Select

RETURN To Go Back

DISC MENU LANGUAGE

→ English Italiano

Francis Nederlands

Espanol More...

Deutsch

↑/↓ ← → To Move

Enter To Select

DISC MENU LANGUAGE

→ Cesky Afrikaans

Dansk Arabic

Magyar Chinese

Svenska Greek

Norsk Hindi

Polski Japanese

Portugues Russian

Svensk Turkish

ENTER To Select

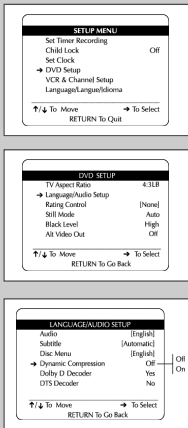
If you do not see the audio language that you wish, select "More..." to display additional choices.

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Dynamic Compression

Dynamic Compression constrains the dynamic range, i.e. the difference between the quietest and loudest passages of a DVD soundtrack. This enables you to limit loud noises, such as explosions, or raise the volume of quiet passages, such as whispering, while watching a movie. This is convenient for viewing movies late at night.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Select "Language/Audio Setup"**
Move the selection arrow to "Language/Audio Setup," then push right to select.
- 4 **Set "Dynamic Compression"**
Move the selection arrow to "Dynamic Compression," then push right to select from the following options:
 - On - The total dynamic range of the DVD soundtrack will be compressed, so quiet passages will be louder and loud passages will be softer.
 - Off - The original dynamic range will be preserved.



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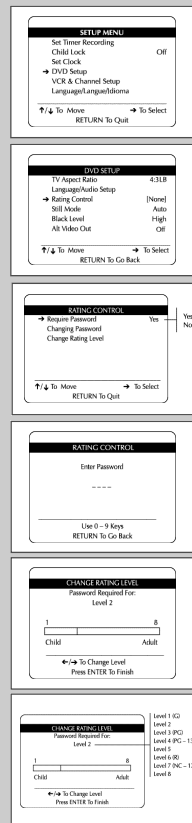
Rating Control Settings

Rating Control is a password protected system that allows you to block playback of DVDs based on their content. The system uses an eight level rating system.

- If you try to play a DVD that exceeds the selected rating, an error message will appear.
- Not all discs are rated.

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 **Select "Rating Control"**
Move the selection arrow to "Rating Control," then push right to select.
- 4 **Select "Require Password"**
Move the selection arrow to "Require Password," then push right to select from the following options:
 - No - Indicates that no password is required to view any DVD disc or to change Rating Control options. No additional Rating Control settings are necessary.
 - Yes - Indicates that a password is required to view some DVD discs and to view Rating Control options. The menu will change as shown.
- 5 **Enter Password**
Enter a 4-digit password using the 0-9 buttons on the remote control.
 - Write your password down, and keep it in a safe place in case you need it to change your settings later.
- 6 **Select "Change Rating Level"**
Move the selection arrow to "Change Rating Level," then push right to select.
- 7 **Change Rating Level**
Use the up/down to select one of the following ratings:
 - Level 1 (G)
 - Level 2
 - Level 3 (PG)
 - Level 4 (PG-13)
 - Level 5
 - Level 6 (R)
 - Level 7 (NC-17)
 - Level 8

All ratings above the level you select will also be blocked, e.g., if you block Level 6, then Levels 7 and 8 will also be blocked. Press Enter to confirm your selection.

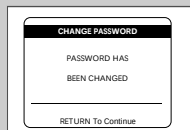
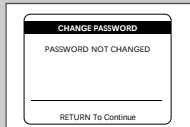
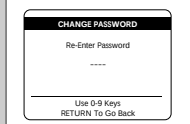


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Changing the Rating Control Password

Follow these instructions to change the Rating Control password.

- Select "Changing Password"**
Use the up/down to select "Changing Password" from the "Rating Control" menu.
- Enter New Password**
Enter a new 4-digit password using the 0-9 buttons on the remote control.
- Re-enter Password**
Enter the same 4-digit password using the 0-9 buttons on the remote control to confirm your password.
- Confirm New Password**
After you re-enter the password, a menu will appear to indicate whether or not the password has been successfully changed. Press the RETURN button to continue.
 - Press the RETURN button repeatedly to exit the menu system.



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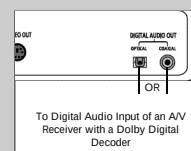
A/V Receiver Connections

To take full advantage of the movie theater experience that DVD offers, you may want to connect your DVD-VCR to a complete Surround Sound system, including an A/V Receiver and six Surround Sound speakers.

Before You Begin...

- If your A/V receiver IS equipped with a Dolby Digital Decoder, you have the option to bypass the DVD-VCR's built-in Dolby Digital Decoder. Use the Digital Audio Out connection below.

- Digital Audio Out**
Connect EITHER an optical cable OR a digital coaxial cable from the Digital Audio Out jacks on the back panel of the DVD-VCR to their corresponding Digital Audio Input jacks on your A/V Receiver:
 - Optical Use whichever connection is available
 - Coaxial on your A/V Receiver.



To Digital Audio Input of an A/V Receiver with a Dolby Digital Decoder

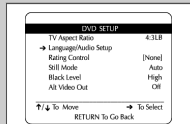
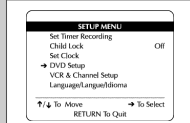
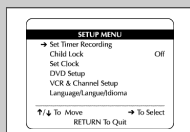
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Dolby Digital Decoder Setting

If your A/V receiver is equipped with a Dolby Digital decoder, your DVD-VCR can output Dolby Digital 5.1 sound, but you MUST enable this feature in the menu system to prevent damage to your speakers.

NOTE: Select "Yes" ONLY if you have connected a Dolby Digital-equipped A/V receiver to the Digital Output (optical or coaxial) on the DVD-VCR back panel.

- 1 Open "SETUP MENU"**
Press the SETUP button.
- 2 Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 Select "Language/Audio Setup"**
Move the selection arrow to "Language/Audio Setup," then push right to select.
- 4 Set "Dolby D Decoder"**
Move the selection arrow to "Dolby D Decoder," then push right to select from the following options:
 - Yes – Indicates that your A/V receiver is equipped with a Dolby Digital decoder.
 - No – Indicates that your A/V receiver is NOT equipped with a Dolby Digital decoder.



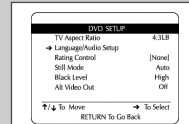
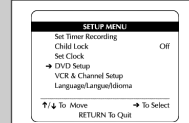
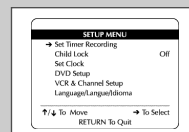
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DTS Decoder Setting

If your A/V receiver is equipped with a DTS decoder, your DVD-VCR can output DTS digital sound, but you MUST enable this feature in the menu system.

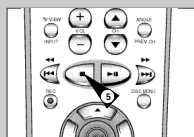
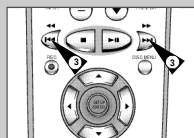
NOTE: Select "Yes" ONLY if you have connected a DTS-equipped A/V receiver to the Digital Output (optical or coaxial) on the DVD-VCR back panel.

- 1 Open "SETUP MENU"**
Press the SETUP button.
- 2 Select "DVD Setup"**
Using the up/down, move the selection arrow to "DVD Setup," then push right to select.
- 3 Select "Language/Audio Setup"**
Move the selection arrow to "Language/Audio Setup," then push right to select.
- 4 Set "DTS Decoder"**
Move the selection arrow to "DTS Decoder," then push right to select from the following options:
 - No – Indicates that your A/V receiver is NOT equipped with a DTS decoder.
 - Yes – Indicates that your A/V receiver is equipped with a DTS decoder.



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Special Playback Features



During DVD/CD playback you can select from the following special playback options. To resume normal playback, press the ►|| (Play/Pause) button.

1 Pause

Press the ►|| (Play/Pause) button on the remote control during playback.

- The picture will pause and the audio will mute.
- To resume playback, press the ►|| (Play/Pause) button.
- If the player is left in Pause mode for 2 minutes, it will stop automatically.

2 Frame Advance

While in Pause mode, press the SKIP/F-ADV button on the remote control to advance one frame at a time.

- Audio is muted during Frame Advance mode.
- Press Play/Pause to resume normal playback.

NOTE: Frame Advance operates only in the forward direction.

3 Skip Forward/Back

While a CD or DVD disc is in Play mode, press the Skip Forward/Back (►|| ◀◀) buttons on the remote control or front panel to jump forward and backward through disc chapters/tracks.

- Skip Forward will jump to the next chapter/track.
- Skip Back will jump to the beginning of the current chapter/track.
- Press Skip Back again to jump to the beginning of the previous chapter/track.

Search Forward/Back

While a disc is in Play mode, press the Search Forward/Back (►|| ◀◀) buttons on the remote control to visually search forward and backward at variable speeds:

- Each press increases or decreases the speed from normal playback to 2X - 4X - 8X - 16X - 32X - 128X. Press Play to resume normal speed.
- Front Panel Search Buttons - Press and hold the Forward/Back buttons on the front panel to visually search forward/backward at 2x - 4x - 8x - 16x - 32x - 128x speed. Release the Forward/Back button to resume normal speed.

4 Slow Motion

During playback, press the ►|| (Play/Pause) button to Pause the image. Then use the Search Forward (►||) to play in slow motion at variable speeds.

- Each press increases or decreases the speed from normal playback to 1/8, 1/4 or 1/2 speed.
- Audio is muted during slow motion playback.
- Press the ►|| (Play/Pause) button to resume normal playback.
- Front Panel Slow Motion Buttons - Press and hold the Forward buttons on the front panel to activate slow motion playback. Release button to resume normal speed.

5 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 Play/Pause, the disc will start over from the beginning.

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Disc Menu Navigation

Many DVDs feature their own menu systems, where you can select Titles, Chapters, Audio Tracks, Subtitles, and special disc features, such as movie trailers, and information on the cast. Use these buttons to make selections in the Disc menus.

1 DISC MENU Button

Press to access the DVD's Disc menu, if applicable.

2 ▲ ▼ or ◀ ▶

Use to navigate through DVD's Disc menu options.

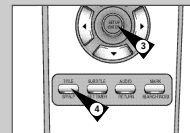
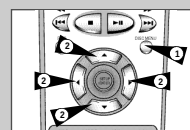
- Push up, down, left and right to highlight menu choices.

3 ENTERButton

Press to make your selections in the Disc menu.

4 TITLEButton

Press to access the DVD's Title menu, if applicable.



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Title/Chapter/Time Selection

If you press the DISPLAY button during DVD playback, you can view the current Title, Chapter/Track, and counter position. You can also use this screen as shortcut to select any Title, Chapter/Track, or counter position on the disc.

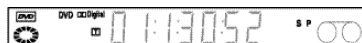
1 View DVD/CD Display

Press the DISPLAY button on the remote control during DVD/CD playback.

2 Select Title

Push the left/right to select Title, then push up/down to change among all available titles on the disc.

- The "T" icon will light on the Front Panel Display, followed by the current title number, hours, minutes, and seconds.



3 Select Chapter or Track

Push the left/right to select Chapter or Track, then push up/down to change among all available Chapters/Tracks on the disc.

- The "T" icon will light on the Front Panel Display, followed by the current title number, hours, minutes, and seconds.



4 Select Counter Position

Push the left/right to select the counter position indicator, then use the number buttons (0-9) to enter the desired counter position in the format HH:MM:SS (H = Hours, M = Minutes, S = Seconds).

Zoom

You can zoom in at 2 or 4 times the normal magnification while watching a DVD.

1 Open Zoom Magnifying Glass

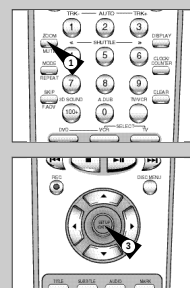
During Playback or Pause mode, press the ZOOM button to display the "Magnifying Glass icon" on the screen.

2 Position Magnifying Glass

Use the ▲, ▼, ◀, ▶ to move the magnifying glass to any position on the screen you want to zoom.

3 Zoom In

Press the ENTER button repeatedly to zoom in at 2X - 4X - 2X - and normal magnification.



Angle



Some DVDs allow you to view the same scene from different perspectives, or angles, while watching a movie. Press the ANGLE button to activate this feature.

1 Check for Angle Marker

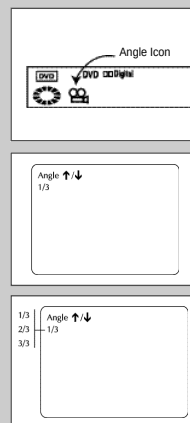
If multiple Angles are available on the DVD, the Angle mark will appear on the front panel display during playback.

2 View Angle Options

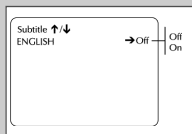
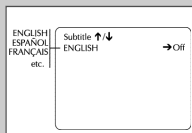
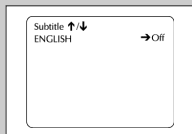
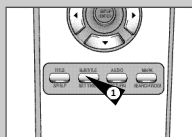
If the Angle mark is present, press the ANGLE button to view the Angle Selection menu.

3 Select Screen Angle

Push the up/down to select one of the available screen angles.



Subtitle



Many DVDs provide subtitles in one or more languages. The SUBTITLE button provides a shortcut to view and select these options.

- 1 Open Subtitle Menu**
During playback, press the SUBTITLE button.
- 2 Set Subtitle Language**
Push the up/down to select among all available subtitle languages.
 - Subtitle languages are often represented by abbreviations.
- 3 Activate Subtitles**
Push the left/right to turn subtitles On or Off.
 - The default subtitle setting is Off.
 - Press the ENTER button to confirm your selection.

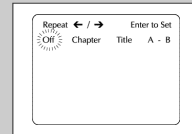
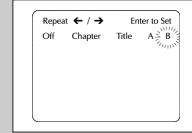
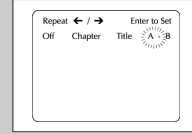
A-B Repeat

The A-B Repeat function allows you to repeat any segment of a DVD or CD. Simply mark the beginning point (A) and the ending point (B) of the segment you want to review.

- 1 Select A-B Repeat Function**
In Play mode, press the REPEAT button, then push left/right to select A-B Repeat.
 - "A-" will blink when A-B Repeat is selected.

NOTE: If you are playing a CD, the menu will display "Track" in place of "Chapter"
- 2 Mark the Starting Point**
Press the ENTER button at the beginning of the segment you want to repeat (Point A).
 - "B" will blink after Point A is selected.

NOTE: The minimum AB Repeat time is 5 seconds.
- 3 Mark the Ending Point**
Press the ENTER button again at the end of the segment you want to repeat (Point B).
 - The segment will begin repeating in a continuous loop.
- 4 Cancel A-B Repeat**
Press the REPEAT button to open the Repeat Menu, push left/right to highlight "Off," then press the ENTER button.



Repeat Chapter/Title

You can repeat a single chapter, or repeat a complete title.

- 1 Open Repeat Menu**
In Play mode, press the REPEAT button to open the Repeat menu.
• The current Repeat Mode will blink.
- 2 Select "Chapter"**
Push the left/right to select "Chapter".
• "Chapter" will blink when Chapter Repeat is selected.
- 3 Repeat Chapter**
Press the ENTER button to repeat the current chapter/track.
- 4 Select "Title"**
Push the left/right to select "Title".
• "Title" will blink when Title Repeat is selected.
- 5 Repeat Title**
Press the ENTER button to repeat the title.

Audio

Many DVDs provide multiple language and audio setup options, such as Dolby Digital 5.1, Dolby Pro Logic, or LPCM 2 Channel audio. The AUDIO button provides a shortcut to view and select among all available options for a given disc.

- 1 Open the Audio Menu**
During playback, press the AUDIO button on the remote control.
- 2 Select DVD Audio Track**
Push the up/down to select the desired language/audio setup on the DVD.
• Languages are represented by abbreviations; i.e. "ESP" for "español."

Bookmarks

You can insert up to three Bookmarks on your DVDs, so you can jump quickly to your favorite scene or song.

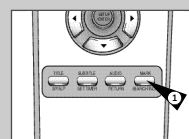
- 1 Open Bookmark Menu**
During playback, press the MARK button on the remote control. The "Mark" header will appear on the screen.
- 2 Select Bookmark Placeholder**
Push the left/right to move to one of the three bookmark placeholders (- - -).
• The selected placeholder will blink.
- 3 Set the Bookmark**
Play the DVD to the scene you want to bookmark, then press the ENTER button. The placeholder will change to a number (1, 2 or 3).
• You can continue setting up to three bookmarks.
• When finished, press the MARK button to exit.
- 4 Play Bookmark**
• During playback, press the MARK button on the remote control.
• Push the left/right to move to a previously set bookmark.
• Press the Play/Pause button to play the bookmark.
• Press the CLEAR button to cancel the bookmark.
• Press the MARK button again to exit the Bookmark menu.

Repeat ◀ / ▶ Enter to Set
Off Chapter Title A-B

Repeat ◀ / ▶ Enter to Set
Off Chapter Title A-B

Repeat ◀ / ▶ Enter to Set
Off Chapter Title A-B

Audio ↑/↓
ENG LPCM 2CH

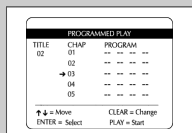
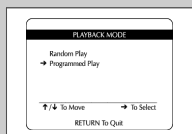


Mark ◀ / ▶ Enter to Set
- - -

Mark ◀ / ▶ Enter to Set
- - -

Mark ◀ / ▶ Play or Clear
- - -

Programmed Playback



Programmed Playback lets you set a custom order for playback of chapters/tracks on a DVD or CD.

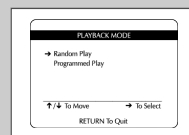
- 1 Open "Playback Mode" Menu**
While in Stop mode, press the MODE button.
- 2 Select "Programmed Play"**
Using the up/down, move the selection arrow to "Programmed Play," then push right to select.
- 3 Select Chapter/Track**
Push the up/down to select the first chapter/track in your revised playback list, then press the ENTER button.
- 4 Program Playback Order**
Use the up/down to select the remaining chapters/tracks, pressing Enter after each.
 - Press the CLEAR button to change selections.
- 5 Play Revised Order**
Press the ► (Play/Pause) button. The disc will play back in the custom programmed order.
 - While in STOP mode, press the POWER button on the remote control to cancel Programmed Play.

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Random Playback

DVD Random Playback lets the DVD-VCR set a random order for playback of chapters/tracks on a DVD or CD.

- 1 Open Playback Mode Menu**
In Stop mode, press the MODE button.
- 2 Select Random Play**
Using the up/down, move the selection arrow to "Random Play," then push right to select.
 - The disc will playback automatically in random order.
- 3 Cancel Random Play**
Press the CLEAR button on the remote control to cancel Random Play.

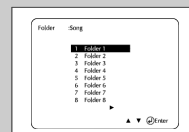


MP3 Playback

MP3 is a popular music format which allows you to compress music files up to 1/12 of their original size while retaining near CD quality sound. Your DVD-VCR can playback MP3 files burned onto a CD-R disc.

- 1 Insert Disc**
Insert a CD-R with MP3 files into the DVD deck.
 - The MP3 main menu will appear after a few seconds and the first song on the disc will begin playing.
- 2 Select Folder**
Push the up/down to select the folder on the CD-R which contains the MP3 files you want to hear, then press Enter to select.
 - If there are more than 8 folders on the disc, push the left/right to view additional folders.
 - If there are no folders on the CD-R, skip to Step 3.
- 3 Select MP3 File**
Push the up/down to select the desired MP3 file.
 - If there are more than 8 MP3 files in the selected folder, push the left/right to view additional MP3 files.
 - File names are truncated to eight characters: the first six characters of the song, plus an asterisk (*), then a number.
 - Press the Return button to back up and select another folder.
- 4 Play MP3 File**
Press either the ENTER button on the remote control to play the selected song.
 - While the song is playing, you can use the up/down to browse through other folders.
- 5 Stop MP3 Selection**
Press the ■ (Stop) button on the remote control to stop playback.

- To ensure proper playback of discs burned from MP3 files, make sure the files have been recorded at a bit rate of at least 128 kbps.
- If there are any gaps (blank data) on multi-session discs, you may experience playback problems.
- On discs that are recorded with a Variable Bit Rate (VBR), e.g. from 32 to 320 kbps, the sound may cut in and out.

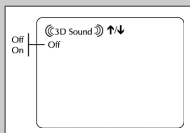
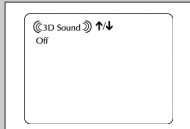


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3D Sound

3D Audio is an enhanced audio mode that creates the illusion of Surround Sound with only two speakers.

- 1 Open 3D Sound Menu**
During playback of a DVD, press the 3D SOUND button on the remote control.
- 2 Set 3D Sound**
Push the up/down to set "3D Sound" On or Off, then push the 3D SOUND button to confirm your selection.



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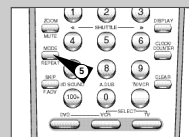
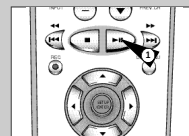
Special VCR Playback Features

While a videotape is playing, you can enjoy a variety of special playback features, including Still, Frame Advance, Skip, Repeat, and more. Press the Play button again to resume normal playback.

- 1 Still**
From Play mode, press Play/Pause to still a single frame.
- 2 Frame Advance**
From still mode, press SKIP/F.ADV to advance to the next frame.
- 3 Cue/Review**
From Play mode, press F.Forward (▶▶) or Rewind (◀◀) to cue/review at two speeds:
 - Picture Search — Press and release to advance the tape forward or backward at 5 times normal speed.
 - Jet Search — Press and hold to advance the tape forward or backward at 7 times normal speed.
- 4 Skip**
From Play mode, press Skip to cue ahead exactly 1 minute. Press Skip repeatedly up to 5 times to cue ahead 1-5 minutes.
- 5 Repeat**
From Play mode, press Repeat to review the last 30 seconds of tape.
- 6 Shuttle**
From Play mode, Shuttle >> gradually increases the cue speed from Double-Speed playback to Picture Search to Jet Search. Shuttle << gradually slows down the tape, then goes into Still mode, Reverse Picture Search and Reverse Jet Search.

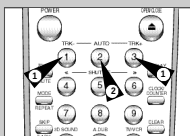


Press the DISPLAY button to see the current status of the VCR deck, as well as the tape counter position and record speed.



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Tracking



The Tracking adjustment removes the white lines that sometimes appear during playback because of slight differences in recording decks. The ATR button (Auto Tracking) will automatically align the recorded tracks with the playback heads to solve this problem. You may also set tracking manually.

- 1 Adjust Tracking Manually**
During playback, press the TRK- or TRK+ buttons to move the white lines out of the picture.
- 2 Resume Auto Tracking**
Press the ATR button to have the VCR adjust tracking automatically.

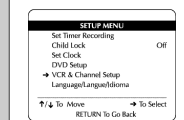
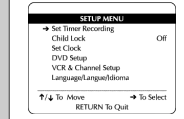
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Auto Play/Rewind

If you want your videotapes to play automatically when you insert them, turn on Auto Play. If you want videotapes to rewind automatically when they are done playing, turn on Auto Rewind.

NOTE: Only tapes that are missing the Record Safety Tab will play automatically when inserted.

- 1 Open the "SETUP MENU"**
Press the SETUP button.
- 2 Select "VCR & Channel Setup"**
Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.
- 3 Select "Auto Play/Rewind"**
Move the selection arrow to "Auto Play/Rewind," then push right to select from the following options:
 - Both - Enables both Auto Play and Auto Rewind.
 - Play - Enables Auto Play only. Tapes without Record Safety Tabs will play automatically when you insert them.
 - Rew - Enables Auto Rewind only. Tapes will rewind automatically when they are done playing.
 - None - Disables both Auto Play and Auto Rewind.



S-VHS Playback

The DVD-VCR allows you to playback high quality S-VHS tapes.

- 1 Insert a S-VHS Tape**
Insert an S-VHS tape into the VCR deck.
- 2 Start Playback**
Press Play/Pause on the remote control to begin playback of the S-VHS tape.

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Basic Recording



You can record a TV show in progress by inserting a blank tape and pressing the REC button. You can even add time in fixed 30-minute increments by pressing the REC button repeatedly; see page 50.

NOTE: Be sure your videotape has a Record Safety Tab. If the tab is missing, you can cover the opening with a small piece of tape. **Warning:** Do not cover this opening unless you are sure you want to record over the tape.

Before You Begin...

- Power on the DVD-VCR
- Power on the TV
- Set the TV to channel 3 or 4 (whichever the switch is set to on the back of the DVD-VCR).

1 Insert Tape

Insert a blank VHS tape into the VCR deck.
• Make sure the tape is long enough to record the entire program.
To change the Recording Speed, see page 51.

2 Select a Channel to Record

Use the 0-9 buttons or the Channel Up/Down arrow buttons to select the desired channel, or press the TV VIEW button to select Line 1 or Line 2 if recording from an external device connected to the front or rear Line inputs, respectively.

3 Start Recording

Press the REC button on the remote control or front panel.
For options while recording is in progress, see "Special Recording Features" on the next page.

Special Recording Features

While a recording is in progress, you can watch a different channel, watch a DVD, or add recording time in 30-minute increments.

1 Pause/Resume Recording

Press the Play/Pause button. Press REC again to resume.

2 Stop Recording

Press the STOP button.

3 Watch a Different Channel

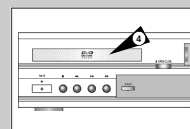
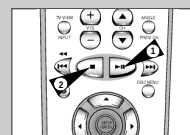
Press the TV/VCR button on the remote to switch to your TV tuner, then select a different channel on your television.

4 To Watch a DVD

Insert a DVD in the DVD deck and press Play. The TV View will automatically change to the DVD.

5 Add Recording Time

See One-Touch Recording (OTR) on the next page.



One-Touch Recording (OTR)

One-Touch Recording (OTR) allows you to add recording time in 30-minute increments up to 9:30 minutes at the touch of a button.

1 Start Recording

Follow the instructions on page 52 to begin recording.

2 Activate OTR

While in Record mode, press the REC button again to activate One-Touch Recording (OTR).

- OTR 0:30 appears on the On-Screen Display and the DVD-VCR will record for exactly 30 minutes.

3 Add Recording Time

Continue pressing REC to add recording time in 30 minute increments up to 9 hours and 30 minutes.

4 Activate Loop Record

When you reach OTR 9:30, press REC again to enter Loop Record mode. The DVD-VCR will record the entire videotape over and over in a continuous loop until you press STOP. This can be used for continuous recording of security cameras.

- If you press Power during OTR, the DVD-VCR will turn off automatically when the recording time has elapsed.
- The DVD-VCR stops recording automatically when the time has elapsed.

Record Speed

You can slow down the recording speed from SP to SLP in order to fit six hours of programming on a T-120 tape.

1 Start Recording

Follow the Basic Recording instructions on page 52.

2 Set Record Speed

Press the SP/SLP button on the remote control to set the Record Speed to one of the following options:

- SP – Standard Play, for best quality.
- SLP – Super Long Play, for maximum recording time (3 times SP).

NOTE: The selected Record Speed will appear on the front panel display.

Maximum Recording Time - SP vs. SLP

Tape Length	SP (Standard Play)	SLP (Super Long Play)
T-120	2 hrs	6 hrs
T-160	2hrs 40 mins	8 hrs
T-180	3 hrs	9 hrs

Record Source

You can set the DVD-VCR to record from a variety of sources, including the Tuner, DVD deck, Line 1 (front) input, or Line 2 (rear) input. The Auto setting will record whatever is currently visible on-screen, as set by the TV VIEW button.

1 Open the "SETUP MENU"

Press the SETUP button on the remote control. The "Setup Menu" appears.

2 Select "VCR & Channel Setup"

Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.

3 Set "Record Source"

Move the selection arrow to "Record Source," then push right to select from the following options. The VCR will record from:

- Auto – Whatever is currently visible on screen.
- Tuner – The VCR's built-in television tuner.
- Line 1 – An external source, such as a camcorder, connected to the front line inputs.
- Line 2 – An external source, such as a Satellite receiver, connected to the rear line inputs.
- DVD – A DVD playing in the DVD deck.

OTR 0:30
0:11:40
SP

OTR 0:30
0:11:40
SP

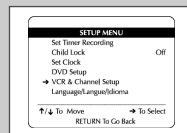
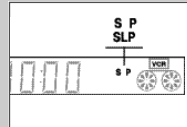
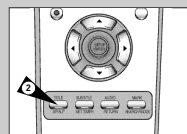
OTR 0:30
OTR 1:00
OTR 1:30
OTR 2:00

OTR 9:00
OTR 9:30

OTR Loop
0:11:40
SP

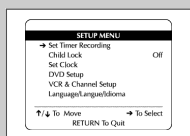
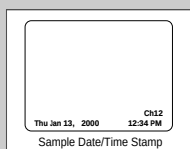
0:11:40
SP

50



51

Date/Time Stamp



The Date/Time Stamp allows you to overlay the date, time, and record source at the beginning of your recordings. You can choose to record the Date/Time Stamp on every recording or on timer recordings only.

Sample Date/Time Stamp

1 Open the "SETUP MENU"

Press the SETUP button on the remote control. The "Setup Menu" appears.

2 Select "VCR & Channel Setup"

Using the up/down, move the selection arrow to "VCR & Channel Setup," then push right to select.

3 Set "Date/Time Stamp"

Move the selection arrow to "Date/Time Stamp," then push right to select from the following options. The Date/Time Stamp will be recorded on:

- Timer – Timer recordings only (default setting).
- All – All recordings.
- None – No recordings.

Copying from DVD To VHS

The DVD-VCR allows you to copy the contents of a DVD to a VHS tape with a press of the COPY button.



If the DVD you are attempting to copy is copy protected, you will not be able to copy the disc. It is not permitted to copy Macrovision® encoded DVDs.

1 Insert Disc

Insert the disc you wish to copy in the DVD deck and close the drawer.

2 Insert VHS Tape

Insert a blank VHS videotape into the VCR deck.

3 Copy the DVD to VHS Tape

Press the COPY button on the DVD-VCR front panel.

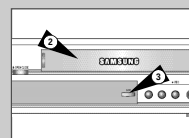
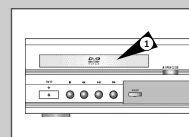
- The DVD will go into Play mode and the VCR will go into Record mode.
- If the DVD disc menu appears, you may need to press the Play button manually to begin copying.

4 Stop the Copy Process

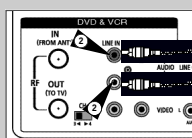
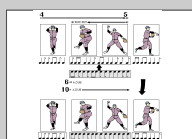
When the DVD is finished playing, press the VCR button on the remote control and then press the STOP button to end the copy.

- You must stop the Copy process manually when the DVD movie ends, or the DVD/VCR may replay and record over and over again.

NOTE : If the DVD you are attempting to copy is copy protected, the VCR will stop Automatically.



Audio Dubbing a Pre-recorded Videocassette



A. Dub

With the Audio Dubbing function, you erase the previously recorded sound and replace it with a new soundtrack from:

- ◆ A CD, DVD
- ◆ A microphone connected to a sound system
- ◆ A cassette player

Restriction:

Audio dubbing is applicable only to the mono audio track (normal audio).

- 1 Connect an RCA audio cable to the appropriate output on your sound system (cassette player for example).
- 2 Connect the other end of the RCA audio cable to the audio input connectors (L, R) on the Rear of your DVD-VCR.
- 3 Insert the pre-recorded videocassette on which the audio track is to be replaced, and press the **▶II** to start playback.
- 4 Search back slightly beyond the Audio Dub start point using the **◀◀** button.
- 5 Press the **▶II** button.
Press the **▶II** button one more time to make PAUSE mode.
- 6 Press A.DUB.
Result: Your VCR is now in the Audio dubbing still mode.
- 7 Press the TV VIEW button to select Audio dubbing source.
ex) If you want to dub external cassette player, then select LINE2.
- 8 On the sound system, locate the point on the cassette at which you wish to start playback.
Example: The track that you wish to record on the cassette.
- 9 When you are ready:
 - ◆ Start playback on the sound system
 - ◆ Press the **▶II** on the remote control.**Result:** The soundtrack is replaced on the pre-recorded cassette.

- The new sound will be recorded on the normal sound track of the tape, and the original sound will remain on the Hi-Fi sound track.

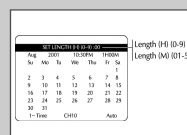
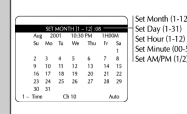
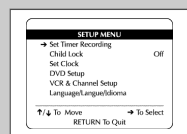
How to Set a Timer Recording

Insert a blank tape with a Record Safety Tab into the VCR deck. The Timer Recording Feature allows you to program up to 16 events at a time to record up to a year in advance. Set the TV to channel 3 or 4 (whichever the switch is set to on the back of the DVD-VCR).

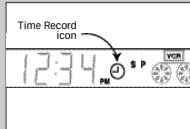
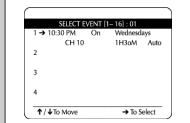
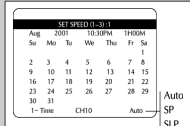
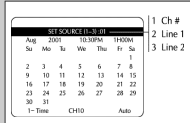
Before You Begin...

- Power on the DVD-VCR
- Power on the TV

- 1 **Open "SETUP MENU"**
Press the SETUP button.
- 2 **Select "Set Timer Recording"**
Using the up/down, move the selection arrow to "Set Timer Recording," then push right to select.
- 3 **Select Event Number**
Move the selection arrow to any available event number (01-16), then push right to select.
- 4 **Set Event Date and Time**
Use the number or up/down buttons to set the date and time of the event. To leave an entry unchanged, push the right button. The player will not allow you to enter an invalid number. The default setting is the current date and time.
 - Set Month – Enter the month as a 2-digit number; i.e. for January, press "01".
 - Set Day – Enter the day as a 2-digit number; i.e. for the ninth, press "09".
 - Set Hour – Enter the hour as a 2-digit number; i.e. for 12:00, press "12".
 - Set Minute – Enter the minute as a 2-digit number; i.e. for 00:25, press "25".
 - Set AM/PM – Enter 1 for AM and 2 for PM.
- 5 **Set Event Length**
Use the number buttons to set the length of the event in hours and minutes. The default setting is 0 hours and 30 minutes.
 - Set Length (H) - Enter the hours as a 1-digit number; i.e. for 1 hour, press "1".
 - Set Length (M) - Enter the minutes as a 2-digit number; i.e. for 30 minutes, press "30".



How to Set a Timer Recording



Complete Program Record, or CPR, helps to ensure you won't run out of tape before your Timer Recording is complete. When Auto is selected, the Timer event begins to record in SP; the DVD-VCR then calculates how much time is remaining on the tape and adjusts the record speed to SLP if necessary to fit the entire event. If there is not enough tape to record the entire event, the DVD-VCR will record in SLP until the end of the tape is reached.

6 Set Event Type

Use the number buttons (1–4) to set the type of event, i.e. how often the event will be recorded. The default setting is "1-Time".

- 1 1-Time – The event will be recorded only once.
- 2 Monday-Friday – The event will be recorded every weekday.
- 3 Weekly – The event will be recorded once a week.
- 4 Always – The event will be recorded every single day.

7 Set Recording Source

Use the number buttons (1–3) to set the Record Source. The default setting is the current tuner (television) channel.

- 1 CH # – Records from the Tuner. Use the number buttons (0–9) to set the channel number.
- 2 Line 1 – Records from the front line inputs
- 3 Line 2 – Records from the rear line inputs.

8 Set Recording Speed

Use the number buttons (1–3) to set the Recording Speed. The default setting is Auto.

- 1 Auto – Complete Program Record (see sidebar).
- 2 SP – Standard Play. Delivers best quality. A T-120 tape will record 2 hours.
- 3 SLP – Super Long Play. Delivers maximum recording time. A T-120 tape will record 6 hours.

9 Confirm Settings

When all setting are complete, press RETURN to confirm the Timer event and view a summary of all programmed events.

- To program another event, select another available event number.
- To edit an event, select an event number that has already been programmed.
- To delete an event, use the up/down to select it and then press CLEAR.
- To exit the Event Summary screen, press RETURN.

10 Programming is Complete!

The event is stored in memory and will record at the scheduled time. A Timer icon will appear on the front panel display to indicate that an event is programmed.

- If there is a problem with your Timer Recording, the Timer icon will flash and a Timer Error appears on the TV screen; see page 57.
- The VCR will automatically turn on when the Timer Recording begins.

Timer Recording Errors/Solutions

If there is a problem with your Timer Recording, the Timer icon will flash on the Front Panel Display and an error message will appear on the On-Screen Display. Once you correct the error, the event will begin if there is still time remaining for that event. You can also clear the event in the Event Summary screen.

1 Tape Missing

- There is no videotape in the VCR deck.
- Insert a videotape in the VCR deck.

2 Tape Missing Tab

The videocassette is missing the Record Safety Tab.

- Insert a video cassette with the Record Safety Tab intact, or place a small piece of adhesive tape over the opening to permit recording

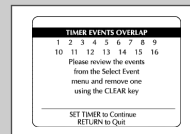
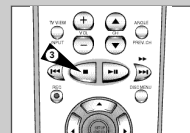
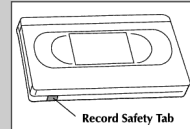
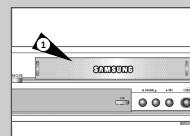
3 Not Ready

- The VCR deck is not in Stop mode (e.g., it is playing, rewinding, etc.).
- Press Stop to stop the VCR deck

4 Overlapping Events

Two or more events are programmed to occur at the same time:

- When you program a new event, the DVD-VCR checks all timer events for conflicts. If two events overlap, you will be prompted to either delete one of the events, or allow them to overlap.
- If events overlap, the first event will be completely recorded, then the next event will start and the remainder of that event will be recorded.



The Clock/Counter Button

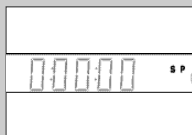
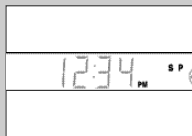


The DVD-VCR Search/Index features allow you to scan and search for Index Marks, quickly find blank tape, search for tape counter positions, and return to 0:00:00. The real-time tape counter gives you real-time feedback on the precise position of your DVDs and videotapes.

Press the **CLOCK/COUNTER** button repeatedly to cycle the front panel display through the following three views:

- 1 Clock**
Shows you the current time as set in the Set Clock menu.
- 2 Real-Time Counter**
Shows you the current counter position in the DVD or VCR deck in hours, minutes, and seconds.
- 3 Time Remaining (VHS only)**
Shows you the amount of time left on the tape in the VCR deck, computed by subtracting the current tape position from the total tape length in hours and minutes.

NOTE: The Clock/Counter/Time Remaining display will not appear if there is a deck status message on the front panel display.

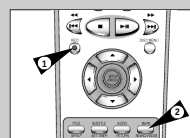


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Placing Index Marks

Index Marks are like bookmarks on your videotapes. They are inserted automatically at the start of every recording, or you can place them manually anywhere on a tape. Later you can locate these "bookmarks" using Index Search or Index Scan.

- 1 Automatic Index Marks**
Index Marks are placed automatically whenever you start recording, including OTR (One Touch Recording), Timer Recording.
- 2 Manual Index Marks**
You can place an Index Mark manually any time a recording is in progress by pressing the Mark button on the remote control. "Index" will flash briefly on the On-Screen Display while the mark is recorded.

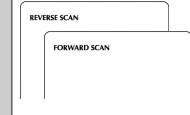
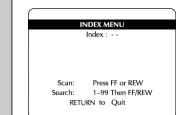
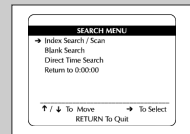


Index Scan

Index Scan will fast-forward or rewind to the nearest Index Mark, play a few seconds of tape, and then fast-forward or rewind to the next Index Mark. When you find the show you want to watch, press Play.

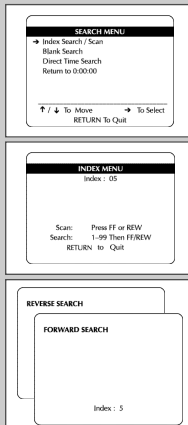
Tip: Use this feature with the Date/Time Stamp to quickly find Timer Recordings on your tapes. For example, when Index Scan stops at an Index Mark and plays a few seconds of tape, you will see the date & time the show was recorded.

- 1 Open "SEARCH MENU"**
From Stop or Play mode, press the SEARCH button.
- 2 Select "Index Search/Scan"**
Using the up/down, move the selection arrow to "Index Search/Scan," then push right to select.
- 3 Scan for Index Marks**
Press Fast-Forward or Rewind to begin scanning for Index Marks forwards or backwards.
- 4 Review the Tape**
When Index Scan locates an Index Mark, it will play the tape for 5 seconds. If it is the scene you want to watch, press the Play/Pause button. If it is not, the VCR will automatically search for the next Index Mark.



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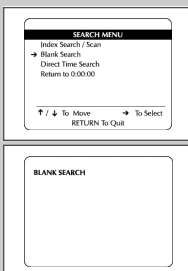
Index Search



Index Search will fast-forward or rewind a specified number of Index Marks from 1 to 99. When it reaches the desired Index Mark, it will play the tape. Use Index Search when you know the exact Index Mark you want to locate.

- 1 Open "SEARCH MENU"**
From Stop or Play mode, press the SEARCH button.
- 2 Select "Index Search/Scan"**
Using the up/down, move the selection arrow to "Index Search/Scan," then push right to select.
- 3 Enter # of Marks to Search**
Enter a number from 1 to 99; e.g. for "5" press "0-5".
- 4 Search for Index Marks**
Press Fast-Forward or Rewind to begin searching forward or backward for the specified Index Mark. When the VCR locates the Index Mark, it will play the tape.

Blank Search



With Blank Search you can easily locate the next available blank (unused) segment on your videotape.

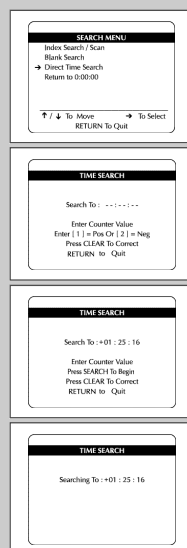
- 1 Open "SEARCH MENU"**
From Stop or Play mode, press the SEARCH button.
- 2 Select "Blank Search"**
Using the up/down, move the selection arrow to "Blank Search," then push right to select.
 - The DVD-VCR will automatically search for the next available blank space on your tape and stop.
 - If no blank space is found, the tape will be ejected.

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Direct Time Search

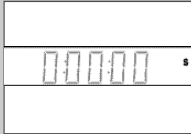
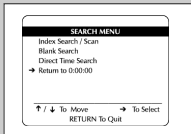
Use Direct Time Search to locate a specific tape location in hours, minutes, and seconds. This is useful for editing purposes, i.e. you can advance the tape directly to the beginning of the desired scene.

- 1 Open "SEARCH MENU"**
From Stop or Play mode, press the SEARCH button.
- 2 Select "Direct Time Search"**
Using the up/down, move the selection arrow to "Direct Time Search," then push right to select.
- 3 Select +/- Counter Value**
Press 1 for positive or 2 for negative counter values.
- 4 Enter the Time**
Use the number buttons (0-9) to enter the desired time in hours, minutes, and seconds. Press Clear if you need to backup and re-enter a number.
- 5 Start the Search**
Press the SEARCH button to advance the tape to the specified time.



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Return to 0:00:00



You can advance your videotapes to tape counter position 0:00:00 at the touch of a button. Remember that pressing the Clear button resets the tape counter position to 0:00:00.

1 Open "Search Menu"

From Stop mode, press the SEARCH button.

2 Select "Return to 0:00:00"

Using the up/down, move the selection arrow to "Return to 0:00:00," then push right to select.

- The tape will rewind or fast-forward to tape counter position 0:00:00.

S-Video/Component Video Connections (for DVD)

You can **ONLY** watch the DVD player through the S-Video or Component Video connection method. The tuner and VCR will still be viewed through the RF or line inputs.

You must follow the "Alt Video Out" instructions on page 68 to activate your alternative video selection.

You can choose **EITHER S-Video OR Component**, but **NOT** both. If your television is equipped with S-Video or Component Video inputs, you can enjoy superior video quality when watching DVDs with your DVD-VCR.

1 Connect S-Video Out to TV

Connect an S-Video cable from the S-Video Out on the back panel of the DVD-VCR to the S-Video Input on your television.

OR

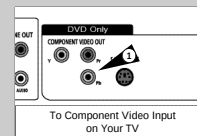
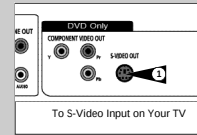
Connect Component Video Out to TV

Connect a component video cable from the Component Video Out (Y, Pb Pr) on the back panel of the DVD-VCR to the Component Video Input on your television.

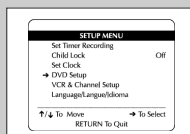
2 Connect Audio Out

Connect RCA audio/video cables from the Left/Right Line Out jacks on the back panel of the DVD/VCR to the Left/Right Audio Line In jacks on your television.

- You must use these Line Out jacks when connecting the DVD-VCR to your TV with the S-Video or Component Video Output.
- Please continue on the next page with "Alt Video Out Setting" to activate your connection.



Alt Video Out Setting



If you connected your DVD-VCR to your television using the S-Video or Component Video Out jacks, you MUST set the "Alt (alternative) Video Out" selection in the on-screen menu system.

- You can ONLY watch the DVD player through the S-Video or Component Video connection method. The tuner and VCR will still be viewed through the RF or line outputs.

1 Open "SETUP MENU"

Press the SETUP button.

2 Select "DVD Setup"

Using the up/down, move the selection arrow to "DVD Setup," then push right to select.

3 Select "Alt Video Out"

Move the selection arrow to "Alt Video Out," then push right to select from the following options:

- Off - Indicates that you are using the standard RF or Line Out jacks to connect your DVD-VCR to your TV or display device.
- S-Video - Indicates that you are using the S-Video Out jack on the rear panel to connect to your TV.
- Component - Indicates that you are using the Component Video Out jacks on the rear panel to connect to your TV.

Stereo Connections

You can enjoy stereo sound when watching movies and TV shows by connecting your DVD-VCR to your home stereo system or stereo TV.

1 Connect DVD-VCR to Stereo

Connect RCA cables from the Line Out Left & Right Audio jacks on the back panel of the DVD-VCR to the Auxiliary Inputs on your stereo receiver. If you are using a stereo television, connect the Video Output as well.

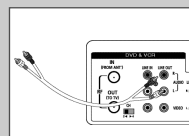
2 Set Stereo to Auxiliary Mode

Set your stereo receiver or television to "Aux" or "Tape," whichever selects the line input for your particular device.

3 Play a Tape

Insert a DVD or Hi-Fi stereo videotape in your system and adjust the volume on your stereo receiver or television. You should hear the audio through your stereo speakers.

- If you still do not hear stereo sound, press the Audio button until "Stereo" appears on the on-screen display.



Monitor TV Connections

Monitor-style televisions offer improved sound and picture over regular televisions because they receive the audio and video signals directly from the DVD-VCR through the line inputs.

NOTE: A monitor television is not the same as a computer monitor.

1 Connect VCR to Monitor TV

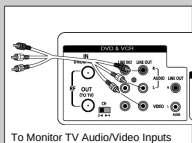
Connect RCA cables from the Audio/Video Line Out jacks on the back panel of the DVD-VCR to the Audio/Video Line Inputs of your monitor TV.

2 Set TV to Auxiliary Mode

Set your monitor TV to "Aux," "Video," or "Line." Refer to your monitor's owner's manual for the correct setting.

3 Connection is Complete

NOTE: With this connection, the TV/VCR button has no effect. It is as if the TV/VCR button were always set to VCR.



To Monitor TV Audio/Video Inputs



Connecting Other Video Equipment

You can connect a wide variety of audio/video equipment to your DVD-VCR, including:

- An additional VCR
- Laser Disc Player
- DVD Player
- Camcorder
- Satellite Receiver
- Video Game

Since all of these devices use essentially the same connections, they will be described together.

1 Connect Device to DVD-VCR

Connect RCA cables from the Audio and Video Line Outputs of your external device to the Audio and Video Line Inputs on the front or back panel of the DVD-VCR.

2 Watch Device

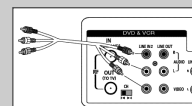
Play your external device, then press the TV View button until the playback from Line 1 (front panel inputs) or Line 2 (rear panel inputs) appears on your TV screen.

3 Record Device

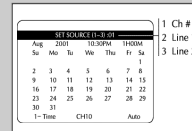
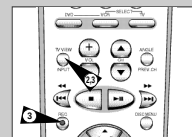
First, play your external device. Next, press the TV View button until the playback from Line 1 (front panel inputs) or Line 2 (rear panel inputs) appears on your TV screen. Then press Record on the VCR deck.

4 Timer Record From Device

Select Line 1 or Line 2 as your record source in the Timer Record menu. All other Timer Record settings should be set in the usual manner; see page 55.



TV Audio/Video Outputs of External Device



- 1 Ch #
- 2 Line 1
- 3 Line 2

Using the TV Buttons on the Remote Control

Your VCR remote control will work with Samsung televisions and compatible brands.

To determine whether your television is compatible, follow the instructions below.

- 1 Switch your television on.
- 2 Point the remote control towards the television.
- 3 Hold down the TV button and enter the two-figure code corresponding to the brand of your television, by pressing the appropriate numeric buttons.

Brand	Codes	Brand	Codes
SAMSUNG	01, 14, 15, 23	LOEWE	28
SHARP	02, 16, 22	ZENITH	17
SONY	03	LG	06, 08, 18
RCA	07, 29	MAGNAVOX	04
TOSHIBA	09	EMERSON	21
PANASONIC	12	SANYO	05, 20
JVC	11	DAEWOO	19
HITACHI	10	NOBLEX	25
MITSUBISHI	13	TELEFUNKEN	26
NEWSAN	27		

Result: If your television is compatible with the remote control, it will switch off. It is now programmed to operate with the remote control.

➤ If several codes are indicated for your television brand, try each one in turn until you find one that works.

👉 When you change the batteries in the remote control, you must reprogram the code, following the same procedure.

You can then control the television using the following buttons.

Button	Function
POWER ①	Used to switch the television on and off.
INPUT ②	Used to select an external source.
VOL + or - ③	Used to adjust the volume of the television.
CH (▲ or ▼) ④	Used to select the required channel.
PREV.CH ⑤	Used to jump directly to the previously viewed channel.
MUTE ⑥	Used to toggle the sound on and off.

➤ The various functions will not necessarily work on all televisions. If you encounter problems, operate the television directly.

Technical Specifications

Inputs	AUDIO	2 Stereo audio inputs, RCA Connector, -8dbm, 47KW, front and rear
	VIDEO	2 Composite video inputs, RCA Connector, 75W, 1Vp-p
	RF	Antenna or CATV Input, F-Connector, 75W
Outputs	AUDIO	2 Stereo audio outputs, RCA Connector, -8dbm, 1.5KW
	AUDIO (DVD only)	2 Digital audio outputs, 1 optical, 1 coaxial
	VIDEO	1 Composite video output, RCA Connector, 75W, 1Vp-p
	VIDEO (DVD only)	1 S-Video output, S-Connector, 75W, Y=1.0Vp-p, C=0.286Vp-p 1 Component video output, 75W, Y=1.0Vp-p, Pb=0.7Vp-p, Pr=0.7Vp-p
VCR	RF	Channel 3 or 4
	VIDEO SYSTEM	1/2-inch VHS system, 4 rotary head helical scanning; FM azimuth luminance; chrominance: converted sub system phase shift
	AUDIO TRACK	Normal: 1 track; Hi-Fi: 2 track
	PLAY/RECORD TIME	T-180 tape: SP 3 hours, SLP 9 hours
	FF/REW TIME	T-120 tape: <2 minutes
	HEADS	Video: DA 4 rotary Duraheads™ Audio: 2 rotary heads (Hi-Fi); 1 stationary head (Linear) Control: 1 stationary head
	Erase	1 full track, 1 audio track
	WOW & FLUTTER	Less than 0.005% (Hi-Fi)
	FREQ. RESPONSE	20-20,000 Hz (Hi-Fi)
	DISC COMPATIBILITY	CD, CD-R, Not compatible with CD-R/W DVD-Video, CD-Digital Audio (5" and 3.5"), CD-Video, MP3 files on CD-ROM
DVD	FREQ. RESPONSE	96/48 kHz Sampling: 4 Hz-22kHz
	S/N RATIO	110 dB
	DYNAMIC RANGE	96 dB
	THD	0.003 %
SYSTEM	POWER REQUIREMENT	100~240V AC, 50~60 Hz, 29 watts
	CLOCK BACKUP TIME	6 hours
	ENVIRONMENT	41-104 F (5-40 C); 10%-75% humidity
	WEIGHT	21.5 lbs.



AC68-01616A