# SAMSUNG

# CHT-420

$\left(\begin{array}{l}\text{Set : DVD-CM420}\\\text{Speaker : SP-420}\end{array}\right)$

# Instruction Manual

DVD VIDEO · COMPACT disc DIGITAL AUDIO · DOLBY DIGITAL PROLOGIC II · DIGITAL dts SURROUND · VHS Hi-Fi
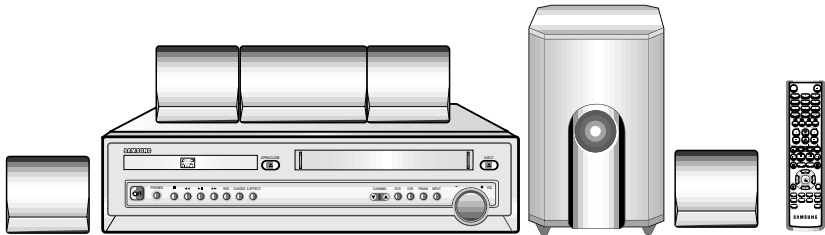
www.samsungusa.com

**CAUTION**

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

**Note to CATV system installer:** This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

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

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

**Attention:** Pour eviter les chocs electriques, introduire la lame le plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

**Important:** One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws.

Certain Canadian programs may be copyrighted and any unauthorized recording in whole or in part may be a violation of these rights.

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

## Important Safety Instructions

1. **Read Instructions-**All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions-**The safety and operating instructions should be retained for future reference.
3. **Heed Warnings-**All warnings on the product and in the operating instructions should be adhered to.
4. **Follow Instructions-**All operating and using instructions should be followed.
5. **Cleaning-**Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **Attachments-**Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. **Water and Moisture-**Do not use this product near water-for example near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. **Accessories-**Do not place this product on an unstable cart, stand, tripod, bracket, or table.The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

10. **Ventilation-**Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product 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.
11. **Power Sources-**This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. **Grounding or Polarization-**This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13. **Alternate Warnings -**This produck is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
14. **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 at plugs, convenience receptacles, and the point where they exit from the product.
15. **Outdoor Antenna Grounding-**If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

NEC-NATIONAL ELECTRICAL CODE

Antenna Lead-in Wire
Ground Clamp
Antenna Discharge Unit (NEC Section 810-20)
Grounding Conductors (NEC Section 810-21)
Grounding Clamps
Power Service Grounding Electrode System (NEC Section 810-21)
Electric Service Equipment

16. **Lightning-**For added protection for this product during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
17. **Power Lines-**An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
18. **Overloading-**Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
19. **Object and Liquid Entry-**Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
20. **Servicing-**Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
21. **Damage Requiring Service-**Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a   When the power-supply cord or plug is damaged.
    b   If liquid has been spilled or objects have fallen into the product.
    c   If the product has been exposed to rain or water.
    d   If the product does not operate normally by following the operating instructions. Adjust only those controls that are  covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
    e   If the product has been dropped or damaged in any way.
    f   When the product exhibits a distinct change in performance-this indicates a need for service.
22. **Replacement Parts-**When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part.Unauthorized substitutions may result in fire, electric shock, or other hazards.
23. **Safety check-**Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
24. **Heat-**The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
25. Wall or Ceiling Mounting The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
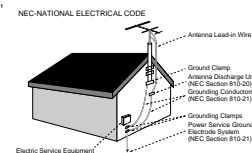
# Table of Contents

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## Feature Summary

**System Features**
• Complete versatility to play DVD, audio CDs, MP3 discs or VHS Tapes.
• Watch a DVD while recording a TV show to the VCR.
• Auto Setup automatically sets clock and searches for channels.
• Remote controls DVD, VCR decks, FM/AM Tuner and Digital Amplifier..
• 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.
• English/French/Spanish on-screen programming.
• Built-in Digital Amplifier, AM/FM 30 Preset Memory
• Dolby Digital, DTS Decoder, PLII Decoder
• Color-coded speaker connectors for easy setup

**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.

**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, Blank Search.
• 8-event/1 month timer recording.
• Time remaining counter, real time counter.

**Amplifier**
• 2-Way Front/Surround speakers
• Center speaker with 2-3/8" full-range driver
• Subwoofer with 8" driver

**Note**
*Discs which cannot be played with this player.
• DVD-ROM    • DVD-RAM
• CD-ROM    • CDV
• CDI    • VCD
• HD layer of super Audio CD
• CDGs play audio only, not graphics.

*Ability to play back may depend on recording conditions.
• DVD-R    • CD-RW
• DVD+RW, -RW

## Unpacking

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

• DVD-VCR
• User's Guide
• RCA cable for Audio/Video connection
• RF (Radio Frequency) Antenna Cable
• AM Antenna Cable
• FM Antenna Cable
• Remote Control
• 1.5V "AAA" Batteries - 2EA
• Speaker
• Speaker Cable
• Warranty Card
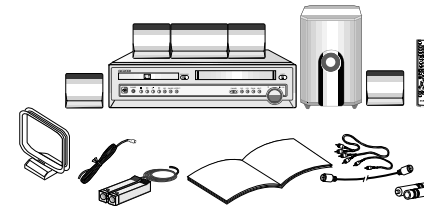
## Disc Type and Characteristics

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

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

\* Please use a 650MB/74Min, 700MB/80Min. CD-R media.

\* Please do not use a 800MB. or above CD-R media, as it may not be played back.

### Disc Markings
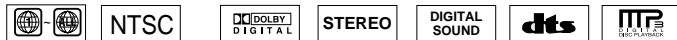
| 🌐-🌐 | NTSC | DOLBY DIGITAL | STEREO | DIGITAL SOUND | dts | MP3 |
|---|---|---|---|---|---|---|
| • Play Region Number | • NTSC broadcast system in U.S.A, Canada, Korea, Japan, etc. | • Dolby Digital disc | • Stereo disc | • Digital Audio disc | • DTS disc | • MP3 disc |

• "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

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

### Play Region Number

Both the DVD player and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play. **The Region Number for this player is described on the rear panel of the player.**

8

## Front Panel Overview
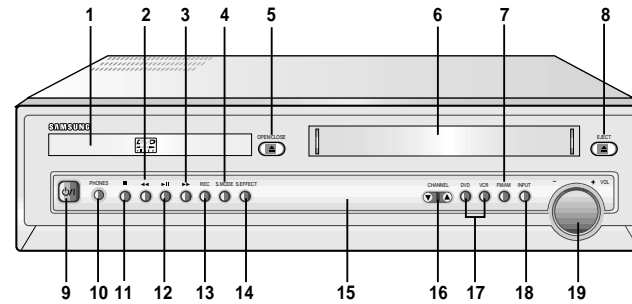


| 1 | DVD DECK | 11 | STOP |
|---|---|---|---|
| 2 | REWIND/REV | 12 | PLAY/PAUSE |
| 3 | FAST-FORWARD/FWD | 13 | RECORD |
| 4 | SOUND MODE | 14 | SOUND EFFECT |
| 5 | DVD OPEN/CLOSE | 15 | FRONT PANEL DISPLAY |
| 6 | VCR DECK | 16 | CHANNEL ▲/▼ |
| 7 | FM/AM SELECT | 17 | DVD-VCR SELECT |
| 8 | VCR EJECT | 18 | INPUT SELECT |
| 9 | POWER | 19 | VOLUME DIAL |
| 10 | HEADPHONE JACK | | |

\*With Volume Dial, you can adjust the volume on the speakers or Headphone.

## Front Panel Display
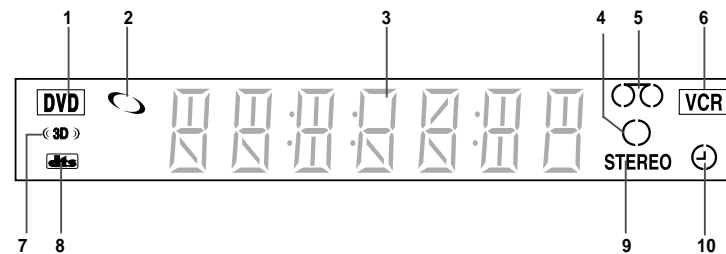


**1** The DVD Deck is active.

**2** DVD, SVCD, or CD media is loaded.

**3** The time, counter position, time remaining or current deck status is indicated.

**4** Recording is in progress (normal and timer).

**5** VHS videotape is loaded.

**6** The VCR Deck is active.

**7** 3D Sound is active.

**8** A DVD with a DTS soundtrack is loaded.

**9** The Hi-Fi track of a VHS videotape is playing or the current TV program or video is broadcast in Stereo.

**10** Timer Recording is in progress. When it blinks there occurs an error. When recording is on it displays without the clock hands. It also blinks when you pause VCR.

9

## Rear Panel
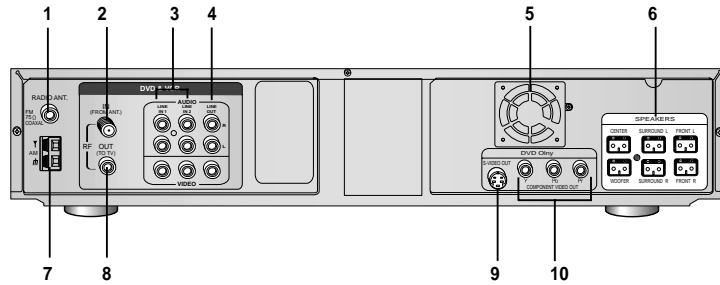


| | |
|---|---|
| 1 | RADIO FM ANTENNA INPUT |
| 2 | RF ANTENNA INPUT |
| 3 | LINE IN 1, 2 |
| 4 | LINE OUT TO TV |
| 5 | COOLING FAN |
| 6 | 5.1ch SPEAKER OUT |

| | |
|---|---|
| 7 | RADIO AM ANTENNA INPUT |
| 8 | RF OUT TO TV |
| 9 | S-VIDEO OUT |
| 10 | COMPONENT VIDEO OUT |

## Remote Control Overview

1  POWER
2  ANGLE, 100+
3  DVD SELECT
4  VCR SELECT
5  TV VOLUME
6  OPEN/CLOSE, EJECT
7  MUTE
8  REWIND, SKIP BACK
9  STOP
10 MENU
11 INFORMATION.
12 LEFT
13 RECORD
14 TEST
15 SPEAKER
16 SCREEN FIT
17 TITLE, SPEED
18 MODE, REPEAT
19 TV POWER
20 0-9
21 ZOOM, ATR
22 FM/AM SELECT
23 TV SELECT
24 AMP VOLUME
25 CH/TRK ▲/▼
26 AUDIO
27 INPUT SEL.
28 FAST-FORWARD, SKIP NEXT
29 PLAY/PAUSE
30 RETURN
31 CLEAR
32 UP
33 ENTER
34 RIGHT
35 TV/VCR
36 DOWN
37 SOUND EFFECT
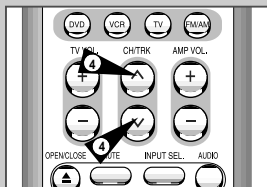38 SOUND MODE
39 DISC MENU
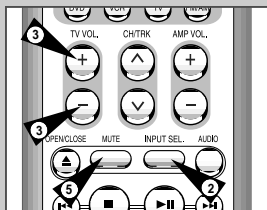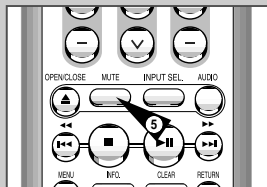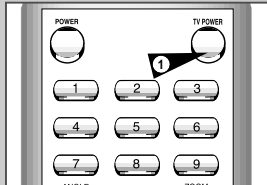40 SUBTITLE, TIMER
41 MARK, SEARCH
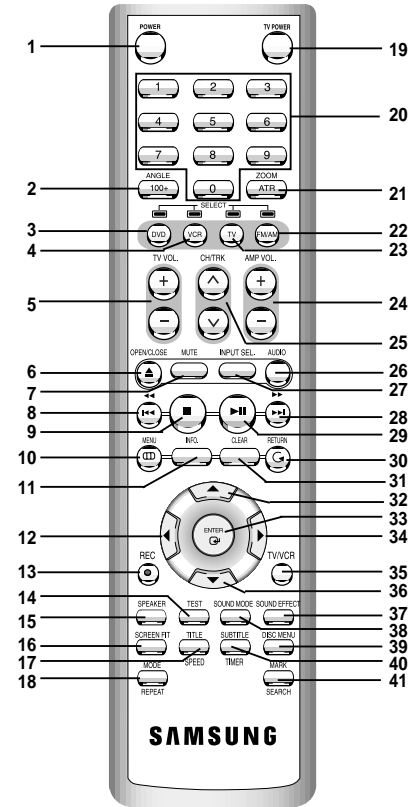


## Insert Remote Control Batteries

- Remove the battery cover by pushing down on the thumb tab and sliding the cover.
- Insert two 1.5V "AAA" batteries as shown, paying attention to the correct polarities (+/–).
- When finished, slide the cover until it clicks back into place.
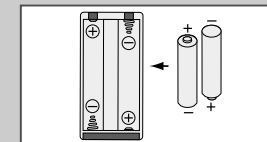
## Using the TV Buttons on the Remote Control

*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, 24 | 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 |
|--------|----------|
| TV 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. |
| MUTE ⑤ | 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.

## Basic Connections/Auto Setup

*In this section, you will connect the DVD-VCR to your television and run Auto Setup, which automatically searches for channels and sets the player's internal clock.*

*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.
NOTE : Check the channel to connect DVD-VCR to your television's Antenna Input; See page 22.
**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 Plug In DVD-VCR**
Connect the DVD-VCR power cord to a standard wall outlet. Don't press any buttons on the DVD-VCR or remote during auto setup. "AUTO" blinks while the DVD-VCR runs an auto setup procedure, where it will automatically search for all active channels and set the clock. When Auto setting has been completed, the front panel displays the current time. If Auto Clock set is unable to find a channel to set the clock, you can set the clock manually; See page 18.

**4 Turn On DVD-VCR**
Press the POWER button on the remote control or on the DVD–VCR's front panel.

**5 Turn On TV**
Press the POWER button on your TV.

**6 Set TV to Channel 3, 4 or Line**
Be sure to use the same channel you selected in Step 2. If you used the Line Connection, set your TV to its Line Input.

From Antenna or Cable

To TV's Antenna Input

AUTO
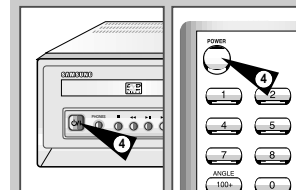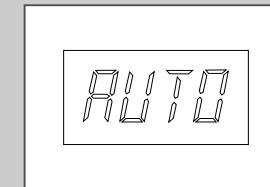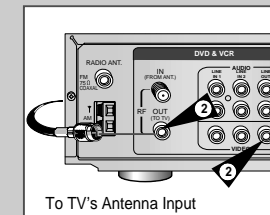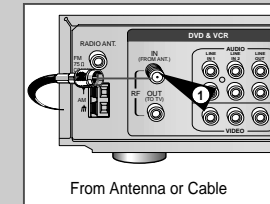
## Deck Control Buttons
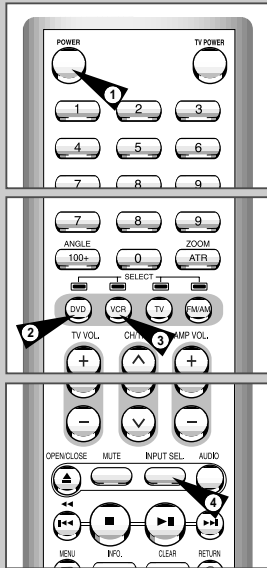
*The DVD-VCR uses one set of controls to operate both decks. The following buttons are helpful in successfully controlling each deck.*

**1    POWER Button**

Press the POWER button on the remote control or front panel to turn on the DVD-VCR.

**2    DVD Button**

Press the DVD button on the remote control or front panel 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.

**3    VCR Button**

Press the VCR button on the remote control or front panel 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.

**4    INPUT SEL. Button**

Press the INPUT SEL. button repeatedly to cycle through all of your input sources, including the Tuner (Ch##), Line 1, Line 2.

## Basic DVD Playback

*Follow these instructions to playback a DVD.*

**1    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.

**2    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.

**3    Close Disc Drawer**

Press the OPEN/CLOSE button on the remote control or front panel to close the disc drawer.
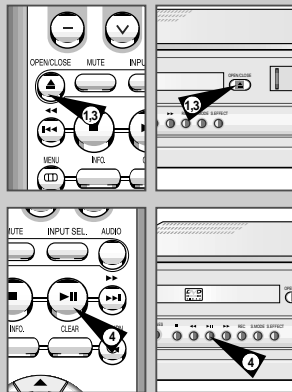
**4    Play the DVD**

Press the ▶II (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.

**5    Additional DVD Options**

- For advanced DVD Setup options, see pages 24~29.
- For special DVD Playback features, see pages 30~39.

## 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 41.*

**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 ▶II (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 41.
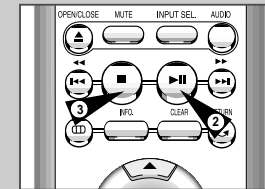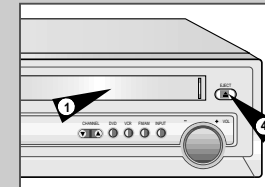
**3    Stop Playback**

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 40~41.
- For VCR Recording features, see pages 43~45.
- For Timer Recording features, see page 46.

**Record Safety Tab**
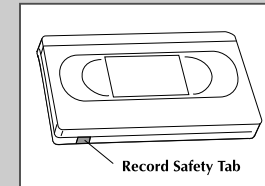
## Basic TV Tuner Operations

*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    INFO.**

Press to INFO. the channel you are watching.
- Also works in DVD and VCR mode.

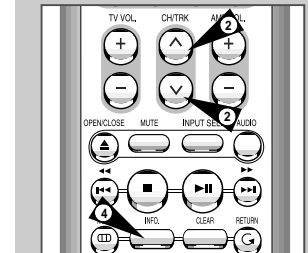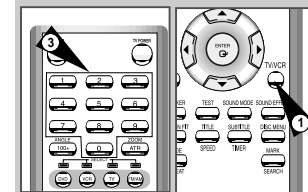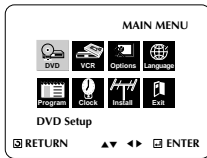## On-Screen Menu Navigation

*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.*

**MAIN MENU**



DVD  VCR  Options  Language

Program  Clock  Install  Exit

**DVD Setup**

RETURN  ▲▼ ◄► ENTER

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

**1  MENU Button**
With the DVD in stop mode, press to access the DVD-VCR on-screen menu system.

**2  Up/Down and Left/Right**
Moves menu selection cursor up, down, left and right to cycle through menu options.

**3  ENTER Button**
Press to confirm settings in certain menus.

**4  RETURN Button**
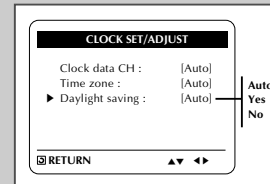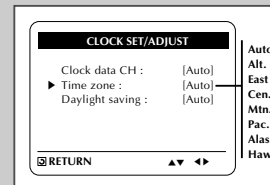Returns to the last menu viewed or exits the menu system.

## Menu Language

**MAIN MENU**

DVD  VCR  Options  Language

Program  Clock  Install  Exit

**Language/Idioma/Langue**

RETURN  ▲▼ ◄► ENTER

**LANGUAGE/IDIOMA/LANGUE**

▶ English
Español
Français

RETURN  ▲▼  ENTER

English Setup Menu

**MENU PRINCIPAL**

DVD  VCR  Options  Language

Program  Clock  Install  Exit

**Language/Idioma/Langue**
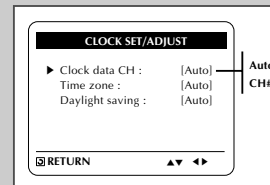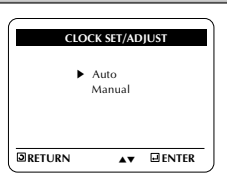
RETURN  ▲▼ ◄► ENTER
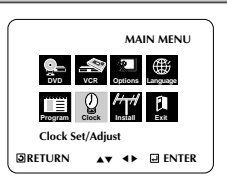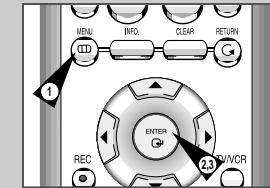
French/Spanish Setup Menu

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

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Set "Language"**
Using the Up/Down and Left/Right buttons, move the selection arrow to "Language/Idioma/Langue," then press ENTER button.

**3  Set menu Language**
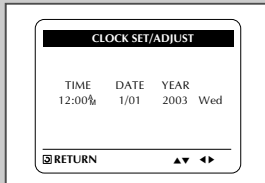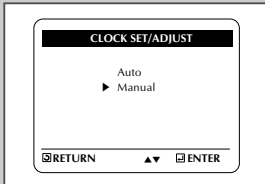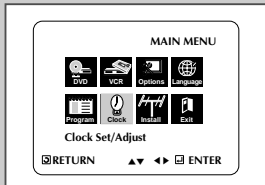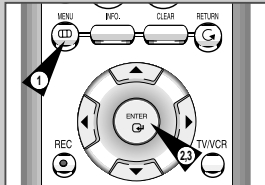Move the selection bar to your desired Language, then press ENTER button.

---

## Clock Setup

*Auto Setup will automatically seek the time in your area from stations broadcasting EDS (extended data services). If the time is set incorrectly, try setting Daylight Savings and Time Zone manually. If the time is not set at all, or if you are using the cable box hookup, set the clock manually; see page 18.*

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "Clock"**
Using the up/down and left/right buttons, move the selection cursor to "Clock Set/Adjust", then press ENTER to select.

**3  Select "AUTO"**
Move the selection arrow to "AUTO", then press ENTER to select.
• The "Clock Set/Adjust" will change as shown.

**4  Confirm Settings**
Press UP/DOWN to select each of the following options, then press LEFT/RIGHT to set each option:
Press the RETURN button to save your clock settings and return to the Setup menu.

**- Clock data Channel**
If you know a local station that broadcasts the time, or want to synchronize the DVD-VCR clock to another audio/video component, you can set the Clock data Channel manually.
• AUTO : Automatically searches for a local channel broadcasting the time.
• CH## : Searches for the time on a channel you specify (such as PBS).

**- Time Zone**
If the DVD-VCR sets your clock incorrectly, try adjusting Time Zone manually.
• AUTO : Automatically detects your local time zone.
• ATLANTIC : Selects Atlantic Standard Time.
• EASTERN : Selects Eastern Standard Time.
• CENTRAL : Selects Central Standard Time.
• MOUNTAIN : Selects Mountain Standard Time.
• PACIFIC : Selects Pacific Standard Time.
• ALASKA : Selects Alaska Standard Time.
• HAWAII : Selects Hawaii Standard Time.

**- Daylight Saving**
If the DVD-VCR sets your clock incorrectly, try adjusting Daylight Savings manually.
• AUTO : The DVD-VCR automatically uses local channel information to determine the status of Daylight savings Time in your area, and then sets the clock accordingly.
• YES : The DVD-VCR adds one hour at 2:00 AM on the first Sunday of April and subtracts one hour at 2:00 AM on the last Sunday in October.
• NO : The DVD-VCR does not adjust the clock for Daylight Savings Time.



**MAIN MENU**

DVD  VCR  Options  Language

Program  Clock  Install  Exit

**Clock Set/Adjust**

RETURN  ▲▼ ◄► ENTER

**CLOCK SET/ADJUST**

▶ Auto
Manual

RETURN  ▲▼  ENTER

**CLOCK SET/ADJUST**

▶ Clock data CH :  [Auto]    Auto
Time zone :  [Auto]          CH##
Daylight saving :  [Auto]

RETURN  ▲▼ ◄►

**CLOCK SET/ADJUST**

Clock data CH :  [Auto]      Auto
▶ Time zone :  [Auto]        Alt.
Daylight saving :  [Auto]    East
Cen.
Mtn.
Pac.
Alas.
Haw.

RETURN  ▲▼ ◄►

**CLOCK SET/ADJUST**

Clock data CH :  [Auto]      Auto
Time zone :  [Auto]          Yes
▶ Daylight saving :  [Auto]  No

RETURN  ▲▼ ◄►

## 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.*

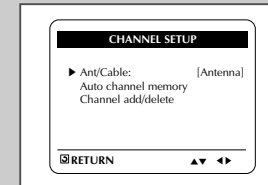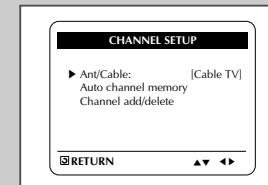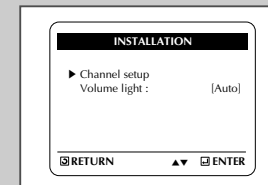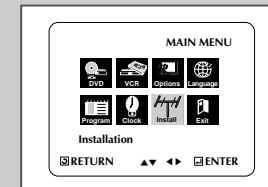*NOTE:    It is important to set the clock for accurate Timer Recording.*

**1    Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2    Select "Clock"**
Using the up/down and left/right buttons, move the selection cursor to "Clock Set/Adjust," then press ENTER to select.

**3    Select "Manual"**
Move the selection arrow to "Manual", then press ENTER to select.

**4    Set the Clock**
Press LEFT/RIGHT to select each of the following options, then press UP/DOWN to set each option:

- **Set Hour**   – Set the hour using the up and down buttons.
- **Set Minute** – Set the minute using the up and down buttons.
- **Set Month**  – Set the month using the up and down buttons.
- **Set Day**    – Set the day using the up and down buttons.
- **Set Year**   – Set the year using the up and down buttons.

**5    Confirm Settings**
Press the RETURN button to save your clock settings and return to the Setup menu.
- Press Return again to exit.

---

**MAIN MENU**

| | | | |
|---|---|---|---|
| DVD | VCR | Options | Language |
| Program | Clock | Install | Exit |

Clock Set/Adjust

RETURN     ▲▼ ◄► ENTER

---

**CLOCK SET/ADJUST**

Auto
▶ Manual

RETURN          ▲▼     ENTER

---

**CLOCK SET/ADJUST**

TIME      DATE    YEAR
12:00ᴀᴍ   1/01    2003  Wed

RETURN          ▲▼  ◄►

---

## 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.*

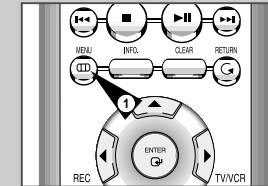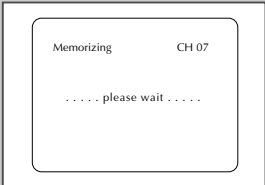**1    Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2    Select "Install"**
Using the up/down and left/right buttons, move the selection cursor to "Installation", then press ENTER to select.

**3    Select "Channel Setup"**
Using the up/down and left/right buttons, move the selection cursor to "Channel Setup", then press ENTER to select.

**4    Select "Ant/Cable"**
Move the selection arrow to "Ant/Cable" then press right to select from the following options:

- Antenna - Indicates that the DVD-VCR is connected to an indoor or outdoor VHF/UHF antenna.
- Cable TV - Indicates that the DVD-VCR is connected to Cable TV.

---

**MAIN MENU**

| | | | |
|---|---|---|---|
| DVD | VCR | Options | Language |
| Program | Clock | Install | Exit |

Installation

RETURN     ▲▼ ◄► ENTER

---

**INSTALLATION**

▶ Channel setup
  Volume light :              [Auto]

RETURN          ▲▼  ENTER

---

**CHANNEL SETUP**

▶ Ant/Cable:              [Cable TV]
  Auto channel memory
  Channel add/delete

RETURN          ▲▼  ◄►

---

**CHANNEL SETUP**

▶ Ant/Cable:              [Antenna]
  Auto channel memory
  Channel add/delete

RETURN          ▲▼  ◄►

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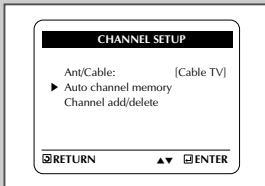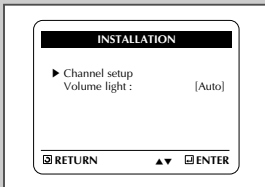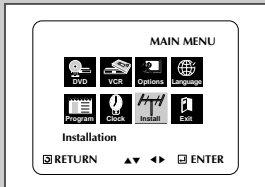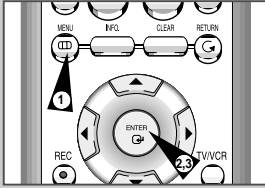
*Auto Channel Memory will automatically seek and store all active channels in your area.*

**1    Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2    Select "Install"**
Using the up/down and left/right buttons, move the selection cursor to "Installation", then press ENTER to select.

**3    Select "Channel Setup"**
Using the up/down buttons, move the selection cursor to "Channel setup", then press ENTER to select.

**4    Run "Auto channel memory"**
Move the selection arrow to "Auto channel memory," then press ENTER 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.

---

### MAIN MENU

DVD   VCR   Options   Language

Program   Clock   Install   Exit

**Installation**

⊡ RETURN      ▲▼ ◄►   ⊡ ENTER

---

### INSTALLATION

▶ Channel setup
  Volume light :              [Auto]

⊡ RETURN          ▲▼   ⊡ ENTER

---

### CHANNEL SETUP

Ant/Cable:              [Cable TV]
▶ Auto channel memory
  Channel add/delete

⊡ RETURN          ▲▼   ⊡ ENTER

---

Memorizing          CH 07

. . . . . please wait . . . . .

## Channel Add/Delete

*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 "MENU"**
With the DVD in stop mode, press the MENU button.

**2    Select "Install"**
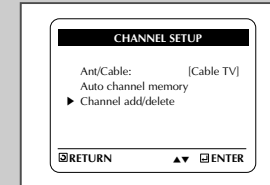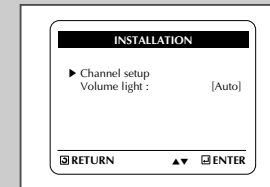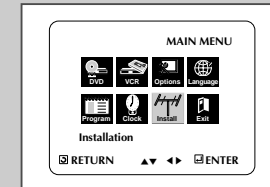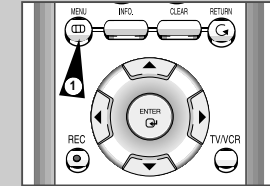Using the up/down and left/right buttons, move the selection cursor to "Installation", then press ENTER to select.

**3    Select "Channel Setup"**
Using the up/down buttons, move the selection cursor to "Channel setup", then press ENTER to select.

**4    Select "Channel add/delete"**
Move the selection bar to "Channel add/delete," then press ENTER to select.

**5    Select Channel to add/delete**
Use the CH ▲/▼ buttons to tune in the channel number you wish to add or remove.

**6    Select "Channel add/delete"**
Press right to add or press left to remove the channel from your channel list.

• Repeat steps 4 and 5 to add or remove additional channels.
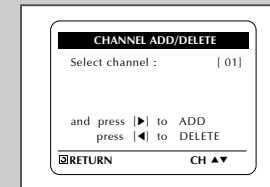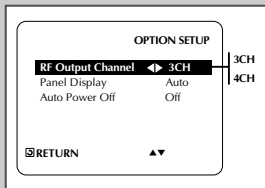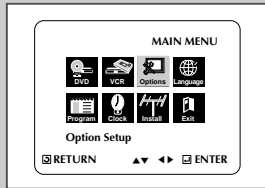
---

### MAIN MENU

DVD   VCR   Options   Language

Program   Clock   Install   Exit

**Installation**

⊡ RETURN      ▲▼ ◄►   ⊡ ENTER

---

### INSTALLATION

▶ Channel setup
  Volume light :              [Auto]

⊡ RETURN          ▲▼   ⊡ ENTER

---

### CHANNEL SETUP

Ant/Cable:              [Cable TV]
  Auto channel memory
▶ Channel add/delete

⊡ RETURN          ▲▼   ⊡ ENTER

---

### CHANNEL ADD/DELETE

Select channel :              [ 01]

and  press  [▶]  to  ADD
    press  [◄]  to  DELETE

⊡ RETURN              CH ▲▼

## RF Output Channel

MAIN MENU

DVD  VCR  Options  Language

Program  Clock  Install  Exit

Option Setup

RETURN  ▲▼ ◄► ENTER

OPTION SETUP

RF Output Channel  ◄► 3CH  | 3CH
Panel Display  Auto  | 4CH
Auto Power Off  Off

RETURN  ▲▼

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "Options"**
Using the up/down and left/right buttons, move the selection cursor to "Option Setup," then press ENTER to select.

**3  Select "RF Output Channel"**
Move the selection bar to "RF Output Channel", then press right to change.

**4  Change "RF Output Channel"**
Press Return to change. A message will appear on your TV. Then press ENTER to change.

**5  Change "TV Channel"**
A message will appear on your TV. When the message disappears, change your TV to channel 3 or 4 to match the RF output channel of the player.

## Front Panel Dimmer

MAIN MENU

DVD  VCR  Options  Language

Program  Clock  Install  Exit

Option Setup

RETURN  ▲▼ ◄► ENTER

OPTION SETUP

RF Output Channel  3CH  | Auto
Panel Display  ◄► Auto  | Bright
Auto Power Off  Off  | Dim

RETURN  ▲▼

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

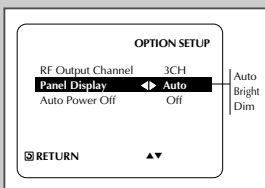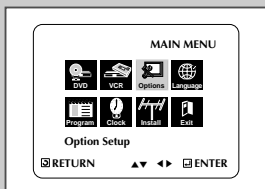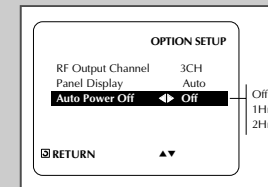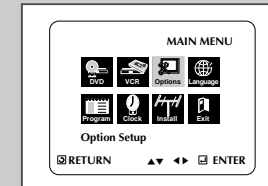**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "Options"**
Using the up/down and left/right buttons, move the selection cursor to "Option Setup," then press ENTER to select.

**3  Set "Panel Display"**
Move the selection bar to "Panel Display," then press right to select from the following options:

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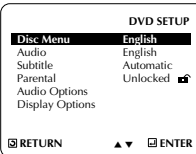- Dim – Front Panel Display will be dim all the time.

## Auto Power Off

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "Options"**
Using the up/down and left/right buttons, move the selection cursor to "Option Setup," then press ENTER to select.

**3  Select "Auto Power Off"**
Move the selection bar to "Option Setup", then press right to select from following options:

- Off – Auto power off is disabled.
- 1Hr – DVD-VCR will auto shut off 1 hour after the last button is pressed.
- 2Hr – DVD-VCR will auto shut off 2 hours after the last button is pressed.

MAIN MENU

DVD  VCR  Options  Language

Program  Clock  Install  Exit

Option Setup

RETURN  ▲▼ ◄► ENTER

OPTION SETUP

RF Output Channel  3CH
Panel Display  Auto  | Off
Auto Power Off  ◄► Off  | 1Hr
| 2Hr

RETURN  ▲▼

## Disc Menu Language

**MAIN MENU**

DVD  VCR  Options  Language
Program  Clock  Install  Exit

DVD Setup

RETURN  ▲▼ ◄► ENTER

**DVD SETUP**

Disc Menu      English
Audio          English
Subtitle       Automatic
Parental       Unlocked
Audio Options
Display Options

RETURN  ▲▼ ENTER

**DISC MENU LANGUAGE**

► English
  Français
  Deutsch
  Español
  Italiano
  Nederlands
  Others

RETURN  ▲▼ ENTER

*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.*
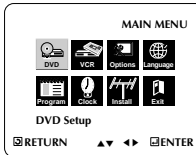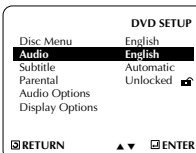
**1  Open "MENU"**

With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**

Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.

**3  Select "Disc Menu"**

Move the selection bar to "Disc Menu," then press ENTER to select.

**4  Set "Disc Menu Language" Preference**

Move the selection bar to your preferred language for DVD disc menus, then press ENTER to select.

## Audio Language

**DVD SETUP**

Disc Menu      English
Audio          English
Subtitle       Automatic
Parental       Unlocked
Audio Options
Display Options

RETURN  ▲▼ ENTER

**AUDIO LANGUAGE**

► English
  Français
  Deutsch
  Español
  Italiano
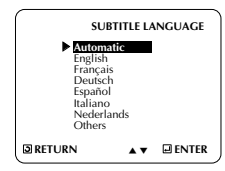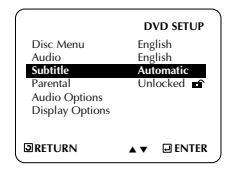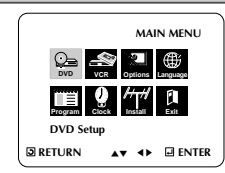  Nederlands
  Original
  Others

RETURN  ▲▼ ENTER

*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 "MENU"**

With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**

Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.

**3  Select "Audio"**

Move the selection bar to "Audio," then press ENTER to select.

**4  Set "Audio Language" Preference**

Move the selection bar to your preferred language for DVD audio soundtracks, then press ENTER to select.
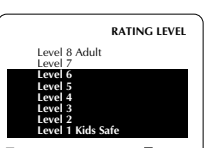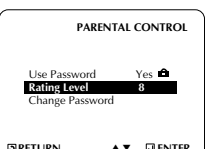
## Subtitle Language

*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 "MENU"**

With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**

Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.

**3  Select "Subtitle"**

Move the selection bar to "Subtitle," then press ENTER to select.

**4  Set "Subtitle Language" Preference**

Move the selection bar to your preferred language for DVD subtitles, then press ENTER to select.

**MAIN MENU**

DVD  VCR  Options  Language
Program  Clock  Install  Exit

DVD Setup

RETURN  ▲▼ ◄► ENTER

**DVD SETUP**

Disc Menu      English
Audio          English
Subtitle       Automatic
Parental       Unlocked
Audio Options
Display Options

RETURN  ▲▼ ENTER

**SUBTITLE LANGUAGE**

► Automatic
  English
  Français
  Deutsch
  Español
  Italiano
  Nederlands
  Others

RETURN  ▲▼ ENTER

## Parental

MAIN MENU

DVD | VCR | Options | Language
Program | Clock | Install | Exit

DVD Setup

◙ RETURN ▲▼ ◀▶ ◙ENTER

---

DVD SETUP

Disc Menu        English
Audio            English
Subtitle         Automatic
**Parental       Unlocked** 🔒
Audio Options
Display Options

◙ RETURN ▲▼ ◙ ENTER

---

PARENTAL CONTROL

Use Password ◀▶ No 🔒

◙RETURN ◙ENTER

---

PASSWORD CHECK

Enter Password
– – – –

◙ RETURN PRESS 0-9

---

PARENTAL CONTROL

Use Password        Yes 🔒
**Rating Level      8**
Change Password

◙ RETURN ▲▼ ◙ENTER

---

RATING LEVEL

Level 8 Adult
Level 7
**Level 6**
**Level 5**
**Level 4**
**Level 3**
**Level 2**
**Level 1 Kids Safe**

◙ RETURN ▲▼ ◙ENTER

---

*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 "MENU"**
With the DVD in stop mode, press the MENU button.

**2   Select "DVD"**
Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.

**3   Select "Parental"**
Move the selection bar to "Parental," then press ENTER to select.

**4   Select "Use Password"**
Move the selection arrow to "Use Password," then press the right button 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.
NOTES:
• The first time "Require Password" is set to "Yes," you will be prompted to enter a new password.
• If the "Enter Password" screen appears, then "Require Password" has already been set to "Yes." Please skip to Step 5.

**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 "Rating Level"**
Move the selection bar to "Rating Level," then press ENTER to select.

**7   Change Rating Level**
Use the up/down to select one of the following ratings:
• Level 8 Adult          • Level 4
• Level 7                • Level 3
• Level 6                • Level 2
• Level 5                • Level 1 Kids Safe

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.
• If you forgot your password, press power on from a cold start with no disc in the unit. Press the REW and F.F buttons simultaneously on the front panel for 5 seconds. The "reset ok" message will appear. Press the power button and the  DVD-VCR will go to the "Auto Setup" mode. (See page 13)

---

## 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 "MENU"**
With the DVD in stop mode, press the MENU button.

**2   Select "DVD"**
Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.

**3   Select "Audio Options"**
Move the selection bar to "Audio Options," then press ENTER to select.

**4   Set "Dynamic Compression"**
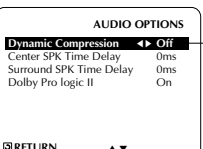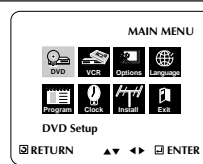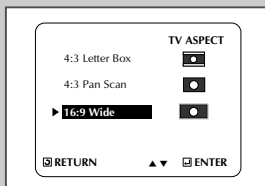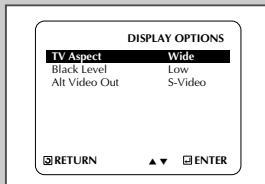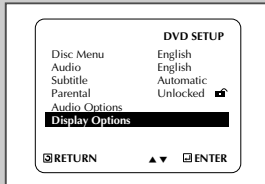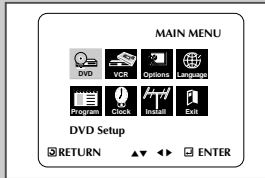Move the selection bar to "Dynamic Compression," then press right to select from the following options:

• 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.

MAIN MENU

DVD | VCR | Options | Language
Program | Clock | Install | Exit

DVD Setup

◙ RETURN ▲▼ ◀▶ ◙ ENTER

---

DVD SETUP

Disc Menu        English
Audio            English
Subtitle         Automatic
Parental         Unlocked 🔒
**Audio Options**
Display Options

◙ RETURN ▲▼ ◙ENTER

---

AUDIO OPTIONS

**Dynamic Compression ◀▶ Off**        On
Center SPK Time Delay    0ms          Off
Surround SPK Time Delay  0ms
Dolby Pro logic II       On

◙ RETURN ▲▼

## 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 "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**
Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.

**3  Set "Display Options"**
Move the selection bar to "Display Options", then press ENTER to select.

**4  Set "TV Aspect"**
Move the selection arrow to "TV Aspect", then press ENTER to select from the following options:

- 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.
- 4:3 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 Widescreen – This method allows you to view the full 16:9 picture on a widescreen television.

---

**MAIN MENU**

DVD Setup

RETURN ▲▼ ◄► ENTER

---

**DVD SETUP**

Disc Menu        English
Audio            English
Subtitle         Automatic
Parental         Unlocked
Audio Options
**Display Options**

RETURN ▲▼ ENTER

---

**DISPLAY OPTIONS**

**TV Aspect        Wide**
Black Level        Low
Alt Video Out      S-Video

RETURN ▲▼ ENTER

---

**TV ASPECT**

4:3 Letter Box
4:3 Pan Scan
▶ **16:9 Wide**

RETURN ▲▼ ENTER

---

## Black Level

*The Black Level feature adjusts the reference level of black in the video signal to one of two choices:*
- *Low -  Standard NTSC black level. Yields consistent contrast through all sources.*
- *High -  Enhanced black level, for increased contrast during DVD playback.*

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**
Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.
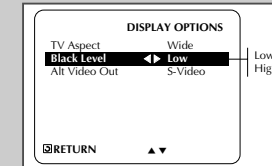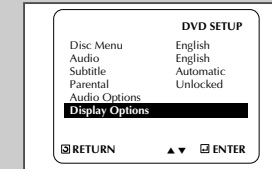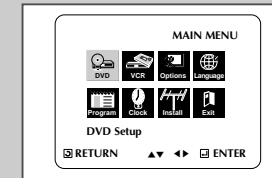
**3  Set "Display Options"**
Move the selection bar to "Display Options", then press ENTER to select.

**4  Set "Black Level"**
Move the selection bar to "Black Level," then press right to select from the following options:

- Low - Standard NTSC reference Black Level for consistent brightness/contrast across all sources.
- High – Enhanced Black Level for increased brightness/contrast when viewing DVDs.

---

**MAIN MENU**

DVD Setup

RETURN ▲▼ ◄► ENTER

---

**DVD SETUP**

Disc Menu        English
Audio            English
Subtitle         Automatic
Parental         Unlocked
Audio Options
**Display Options**

RETURN ▲▼ ENTER

---

**DISPLAY OPTIONS**

TV Aspect         Wide
**Black Level     ◄► Low**         Low
Alt Video Out     S-Video          High

RETURN ▲▼

---

## Alt Video Out

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

- *The S-Video or Component Video connection is only for the DVD player. The tuner and VCR will still be viewed through the RF or line outputs.*

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**
Using the up/down and left/right buttons, move the selection cursor to "DVD Setup," then press ENTER to select.
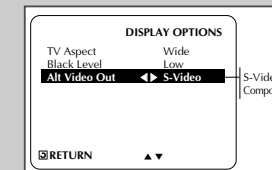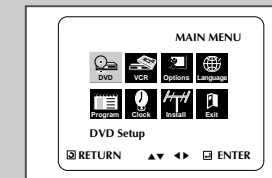
**3  Set "Display Options"**
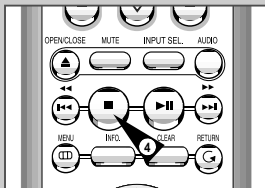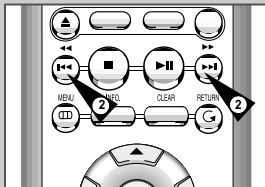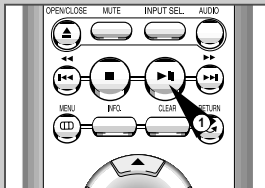Move the selection bar to "Display Options", then press ENTER to select.

**4  Select "Alt Video Out"**
Move the selection bar to "Alt Video Out," then press right to select from the following options:

- 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.

---

**MAIN MENU**

DVD Setup

RETURN ▲▼ ◄► ENTER

---

**DVD SETUP**

Disc Menu        English
Audio            English
Subtitle         Automatic
Parental         Unlocked
Audio Options
**Display Options**

RETURN ▲▼ ENTER

---

**DISPLAY OPTIONS**

TV Aspect         Wide
Black Level        Low
**Alt Video Out   ◄► S-Video**       S-Video
                                     Component

RETURN ▲▼

## 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.*

*NOTE : Changing the view during DVD/CD playback will stop the playback.*

**1   Still**
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 5 minutes, it will stop automatically.

**2   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 and hold the Forward/Back (▶▶ / ◀◀) buttons on the remote control or front panel to visually search forward/ backward at 2X - 4X - 8X - 16X - 32X - 128X speed. Press ▶❙❙ (Play/Pause) button to resume normal speed.

- During CD play back, ▶▶ / ◀◀ buttons on the remote control don't operate.

**3   Slow Motion**
During playback, press the ▶❙❙ (Play/Pause) button to Still the image. Then use the Search Forward (▶▶ ) to play in slow motion at variable speeds.

- Each press increases the slow motion speed playback to 1/8, 1/4 or 1/2 normal speed.
- Audio is muted during slow motion playback.
- Front Panel Slow Motion Buttons - While the unit is in the pause mode, press and hold the Forward buttons on the front panel to activate slow motion playback. Press the ▶❙❙ (Play/Pause) button to resume normal playback.

NOTE : Slow motion operates only in the forward direction.

**4   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.

## 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   Press ▲, ▼ or ◀ , ▶ to navigate through DVD's Disc menu options.**
- Press up, down, left and right to highlight menu choices.

**3   ENTER Button**
Press to make your selections in the Disc menu.

**4   TITLE Button**
Press to access the DVD's Title menu, if applicable.
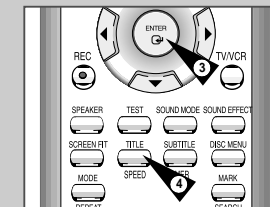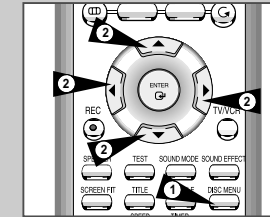
## Screen Fit Playback

**1   SCREEN FIT Button**
During play, press SCREEN FIT button on the remote control.
- Allows you to eliminate the black bars in the top and bottom of the screen when a movie is playing in the Widescreen format (16:9).
- Screen Fit will not work when the Zoom mode is active. (you can not remove the black bars on the screen) However, Zoom mode will work when Screen Fit is active.

➢
- ◆ Various aspect ratios are available only on multiple screen format discs.
- ◆ This function does not work when a DVD has been recorded in a multi-camera angle format.
- ◆ On some DVDs, the black bars cannot be eliminated due to their aspect ratio.

## Title/Chapter/Time Selection
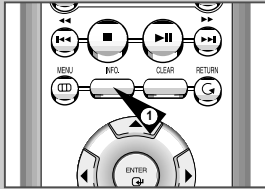


*If you press the INFO. button during DVD playback, you can view the current Title, Chapter/Track, and counter position. You can also use this screen as shortcut to select any Title, Chapter/Track, or counter position on the disc.*

**1    View DVD/CD INFO.**
Press the INFO. button on the remote control during DVD/CD playback.

**2    Select Title**
Press the up/down and left/right buttons to select Title, then press ENTER to change among all available titles on the disc.

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

**3    Select Chapter or Track**
Press the up/down and left/right buttons to select Chapter or Track, then press ENTER to change among all available Chapters/Tracks on the disc.

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

**4    Select Counter Position**
Press the up/down and left/right buttons 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).
Then press ENTER to enter the desired counter position.
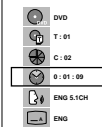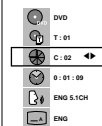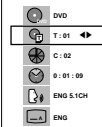
## Zoom

*You can zoom in at 2 or 4 times the normal magnification while watching a DVD.*
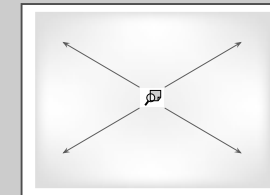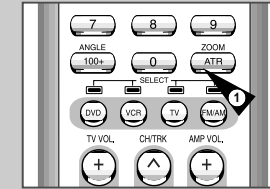
**1    Open Zoom Magnifying Glass**
During Playback or Still mode, press the ZOOM button to display the "Magnifying Glass icon" on the screen.

**2    Position Magnifying Glass**
Use the ▲, ▼, ◀, ▶ buttons 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.*
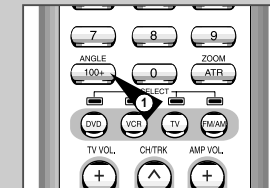
**1    Check for Angle Marker**
If multiple Angles are available on the DVD, the Angle mark will appear on the screen during playback.
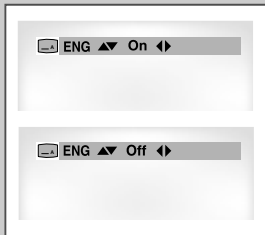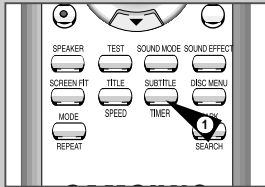
**2    View Angle Options**
If the Angle mark is present, press the ANGLE button to view the Angle Selection menu.

**3    Select Screen Angle**
Press the up/down buttons 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**
Press the up/down buttons to select among all available subtitle languages.

- Subtitle languages are often represented by abbreviations.

**3    Activate Subtitles**
Press the left/right buttons to turn subtitles On or Off.

- The default subtitle setting is On.
- Press the RETURN 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 press left/right to select A-B Repeat.

- "A-" will be highlighted when A-B Repeat is selected.

NOTE: If you are playing a CD, you should select REPEAT menu.

- Press the left/right buttons to select REPEAT menu, then press ENTER to open.

**2    Mark the Starting Point**
Press the ENTER button at the beginning of the segment you want to repeat (Point A).

- "B" will be highlighted after Point A is selected.
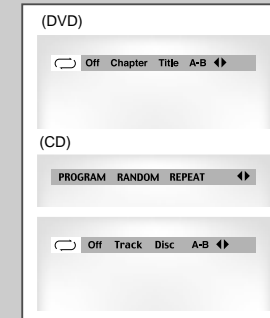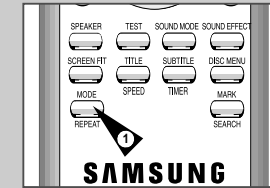
NOTE: The minimum AB Repeat time is 5 seconds.

**3    Mark the Ending Point**
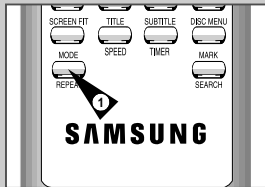Press the ENTER button again at the end of the segment you want to repeat (Point B).

- The segment will begin repeating in a continuous loop.

**4    Cancel A-B Repeat**
Press the REPEAT button to open the Repeat Menu, press 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 highlighted.

NOTE: If you are playing a CD, you should select REPEAT menu.

• Press the left/right buttons to select REPEAT menu, then press ENTER to open.

**2  Select "Chapter"**

Press the left/right buttons to select "Chapter".

• "Chapter" will highlight when Chapter Repeat is selected.

**3  Repeat Chapter**

Press the ENTER button to repeat the current chapter/track.
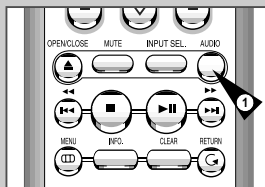
**4  Select "Title"**

Press the left/right buttons to select "Title".

• "Title" will highlight when Title Repeat is selected.

**5  Repeat Title**

Press the ENTER button to repeat the title/disc.

(DVD)

> Off  Chapter  Title  A-B  ◀▶

(CD)

PROGRAM  RANDOM  REPEAT  ◀▶

> Off  Track  Disc  A-B  ◀▶

## 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**

Press the up/down buttons to select the desired language/audio setup on the DVD.

• Languages are represented by abbreviations; i.e. "ESP" for "español."

⊡ ♪ ENG  DOLBY  DIGITAL  5.1CH  ▲▼

## 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**

Press the left/right buttons to move to one of the three bookmark placeholders (- - -).

• The selected placeholder will highlight.

**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.
• Depending on the disc, the bookmark function may not work.

**4  Play Bookmark**

• During playback, press the MARK button on the remote control.
• Press the left/right buttons 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.
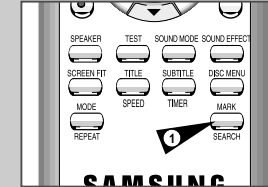
📖 - - -  ◀▶  ↵ ENTER

📖 1 - -  ◀▶  ▶ PLAY  ✕ CLEAR

## Programmed Playback (CD)
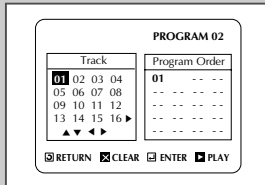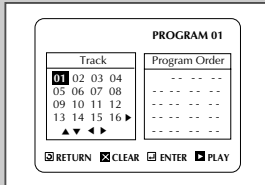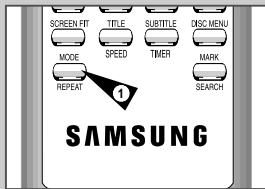


*Programmed Playback lets you set a custom order for playback of tracks on a CD.*

**1    Open Playback Mode Menu**
In play mode, press the MODE button.

**2    Select "PROGRAM"**
Using the left/right buttons, move the selection bar to "PROGRAM" then press ENTER to select.

**3    Select Track**
Press the up/down and left/right buttons to select the first track in your revised playback list, then press the ENTER button.

**4    Program Playback Order**
Use the up/down and left/right buttons to select the remaining tracks, pressing Enter after each.

•  Press the CLEAR button to change selections.

**5    Play Revised Order**
Press the ▶II (Play/Pause) button. The disc will play back in the custom programmed order.

•  While in playback mode, press the CLEAR button on the remote control to cancel Programmed Play.

## Random Playback (CD)

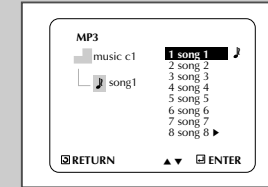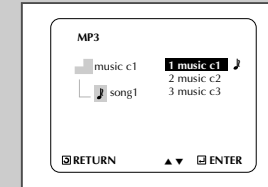*Random Playback lets the DVD-VCR set a random order for playback of tracks on a CD.*

**1    Open Playback Mode Menu**
In play mode, press the MODE button.

**2    Select "RANDOM"**
Using the left/right buttons, move the selection arrow to "RANDOM" then press ENTER 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.
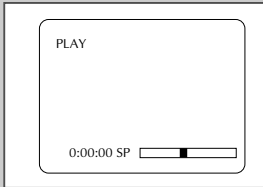
## MP3 Playback

*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**
Press the up/down buttons 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, press RETURN to view additional folders.
•  If there are no folders on the CD-R, skip to Step 3.

**3    Select MP3 File**
Press the up/down buttons to select the desired MP3 file.

•  If there are more than 8 MP3 files in the selected folder, press the left/right buttons 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 the ENTER button on the remote control to play the selected song.

•  While the song is playing, you can use the up/down buttons 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.

*  When the REPEAT button is pressed during playback, the current song will be played back repeatedly.

## 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.*

PLAY

0:00:00 SP

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

**1    Still**
From Play mode, press Play/Pause to still a single frame.

**2    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.

**3    Repeat**
From Play mode, press Repeat to review the last 5 seconds of tape (SP mode).

## Tracking Adjusting Picture Alignment Automatically
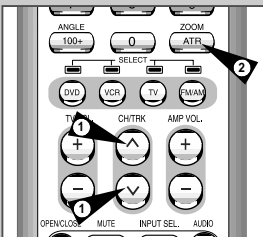
*The Tracking adjustment removes the white lines that sometimes appear during playback because of slight differences in recording decks. The TRK button will automatically align the recorded tracks with the playback heads to solve this problem. You may also set tracking manually.*

**1    Adjust Tracking Manually**
During playback, press the TRK ▲ or TRK ▼ buttons to move the white lines out of the picture.

**2    Ajust Tracking Automatically**
If you press the ATR key on the remote control during VCR playback, the tracking on the VCR will be set automatically.

## Auto Play

*If you want your videotapes to play automatically when you insert them, turn on Auto Play.*

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

**1    Open the "MENU"**
With the DVD in stop mode, press the MENU button.

**2    Select "VCR"**
Using the up/down and left/right buttons, move the selection arrow to "VCR Function Setup," then press ENTER to select.

**3    Select "Auto Play"**
Move the selection arrow to "Auto Play," then press right to select from the following options:
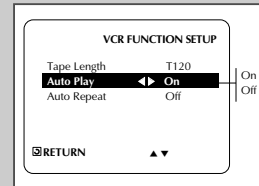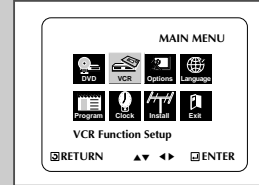- On - The VCR will automatically begin playing a video tape when it is inserted, as long as the safety tab of the cassette has been removed.
- Off - Auto play is disabled.

**4    Tape Length**
Press the left button to select the video cassette length. This information is usually printed on the tape box. The menu cycles through: T120, T160 or T180. Once the type of cassette is set, the VCR can display the amount of time remaining on the tape when you press the INFO. button.

**5    Auto Repeat**
In the VCR Function Setup " Auto Repeat" sets the VCR to play a tape repeatedly [unless a tape control is activated (stop, fast forward or rewind)].

**Record Safety Tab**

MAIN MENU

DVD   VCR   Options   Language

Program   Clock   Install   Exit

VCR Function Setup

▣RETURN    ▲▼ ◀▶    ▣ENTER

VCR FUNCTION SETUP

Tape Length        T120
Auto Play      ◀▶  On          On
Auto Repeat        Off          Off

▣RETURN        ▲▼

## S-VHS Playback

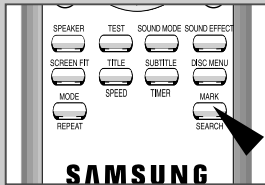*The DVD-VCR allows you to playback high quality S-VHS tapes.*

**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.

## Variable Search System

*Press the SEARCH button to display the search screen in the stop mode. When a program is recorded, the starting point is given an Index mark for easy location. However, the VHS Index Search System (VISS) cannot recognize index marks made by old VCRs. If the VCR has trouble finding a mark, it is probably because the cassette was recorded on a VCR without VISS. If you want to index two programs in a row, set your VCR to stop, then start recording each program. Pause has no effect on index marks.*

```
Scan and play:
            press [◄] or [►]
Go to [0:00:00]:
            Press [▲]
End search:
            Press [▼]

0:00:00  SP  ▇▇▇▇
```

**1    Scan and play**
Use scan and play when you don't know exactly where a program is located on a cassette tape.

- Press right arrow for forward scan or left arrow for reverse scan.
- The display will show "Scan and Play".
- When an index mark is found, the VCR plays for about ten seconds.
- Press the PLAY button to view that program.
  If you don't press PLAY, the VCR automatically searches for the next index, or until the end of the tape is reached.

**2    Go to 0:00:00 stop**
Use this feature when you want to search for the 0:00:00 counter position on a cassette. Press the CLEAR button at the point on the tape where you want to set the counter to 0:00:00. Later, while a cassette is stopped, press up arrow button. The VCR will rewind or fast forward, searching for the 0:00:00 counter position, and then automatically stop at that position.

**3    End search**
Use this feature when you want to search for a blank position to record a program on a cassette. While a cassette is stopped, press down arrow button. The VCR will fast forward, searching for a blank position, and then automatically stop at that position.
If the VCR reaches the end of the tape during end search, the tape will be ejected.

## 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 30-minute increments up to 4 hours by pressing the REC button repeatedly; see page 45.*

*NOTE:   Be sure you 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.*

**Record Safety Tab**

*Before You Begin...*
- *Power on the DVD-VCR*
- *Power on the TV*
- *Set the TV to channel 3 or 4 .*

**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 45.

**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 INPUT button to select Line 1, 2  if recording from an external device connected to the rear Line inputs, respectively.
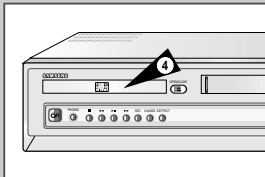
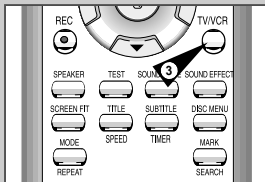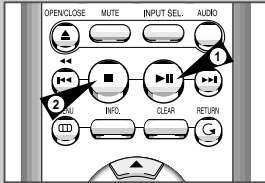**3    Start Recording**
Press the REC button on the remote control or front panel.
For options while recording is in progress, see "Special Recording Features" on the next page.

➢   Recording from the DVD player to the VCR is not possible.
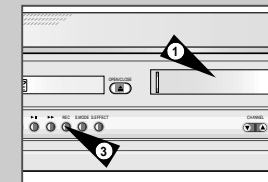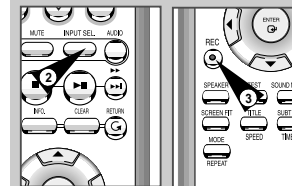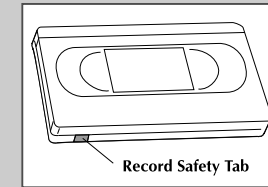
## Special Recording Features

*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 ▶II (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 output 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 4 hours at the touch of a button.*

**1    Start Recording**

Follow the instructions on page 43 to begin recording.

**2    Activate OTR**

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

• Record length 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 4 hours.

• The DVD-VCR stops recording automatically when the time has elapsed.
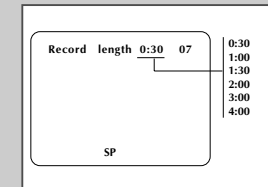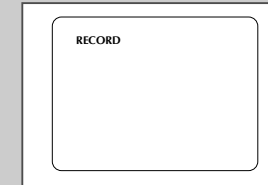
## Record Speed

*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 43.

**2    Set Record Speed**

Press the SPEED button on the remote control to set the Record Speed to one of the following options:

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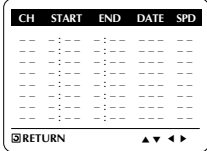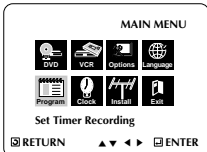• SLP – Super Long Play, for maximum recording time (3 times SP).

NOTE: The selected Record Speed will appear on-screen 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 |

## 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 8 events*
*at a time to record up to a month in advance.*
*Set the TV to channel 3 or 4.*

*Before You Begin...*

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

**1   Open "MENU"**

With the DVD in stop mode, press the MENU button or with the
VCR press the TIMER button.

**2   Select "Program"**

Using the up/down and left/right buttons, move the selection cursor
to "Set Timer Recording," then press ENTER to select.

**3   Select Channel Number**

Press right and up/down buttons to set the channel. Press the right
button to move to the next setting.

**4   Set "Time/Date/Speed"**

Repeat step 3 to set start time, end time, date and record speed.
Date can be set for one time, daily or weekly recording. See below.

**5   Save "Timer Recording"**

Press the RETURN button to complete programming of the timer
recording. Stop the VCR or turn the power off. The timer indicator
comes on the VCR. The VCR will automatically turn on and begin
recording at the time you set. To stop a timer recording, press the
POWER button or STOP button on the VCR.

**6   Auto Speed Select**

If you are not sure the tape is long enough for timer program
recording in the SP tape speed, set the recording tape speed to
"AUTO". Recording starts in the SP tape speed. If the tape length is
not long enough, the tape speed automatically changes from SP to
SLP.

**7   Daily/Weekly Date Programming**

Weekly [SUN'S~SAT'S]: You can record TV programs on the same
channel at the same time every week.
Daily [MO ▶ FR] : You can record TV programs on the same
channel at the same time every day Monday through Friday.

## S-Video/Component Video Connections (for DVD)

*The S-Video or Component Video connection is only for the DVD*
*player. The tuner and VCR will still be viewed through the RF or*
*line inputs.*
*You must follow the "Alt Video Out" instructions on page 29 to*
*activate your alternative (S-Video, Component) 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.*

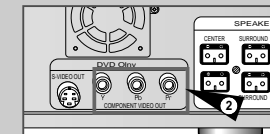**1   Connect S-VIDEO OUT to TV**

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.

**2   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.
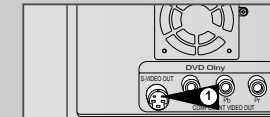
To S-Video Input on Your TV

To Component Video Input
on Your TV

## Connecting the FM and AM antennas

**1  FM antenna connections**
- Connect the FM antenna to the FM 75Ω COAXIAL terminal.
- Unwind the antenna wire and then fasten it to a wall in an area where reception is best.

  - If reception is poor, connect the outdoor antenna. Remove the existing FM antenna before connecting the 75Ω coaxial cable.

**2  AM antenna connections**
- Connect the AM loop antenna to the AM and 〒 terminals on the back of the unit.
- Rotate the loop antenna until you have the best reception.
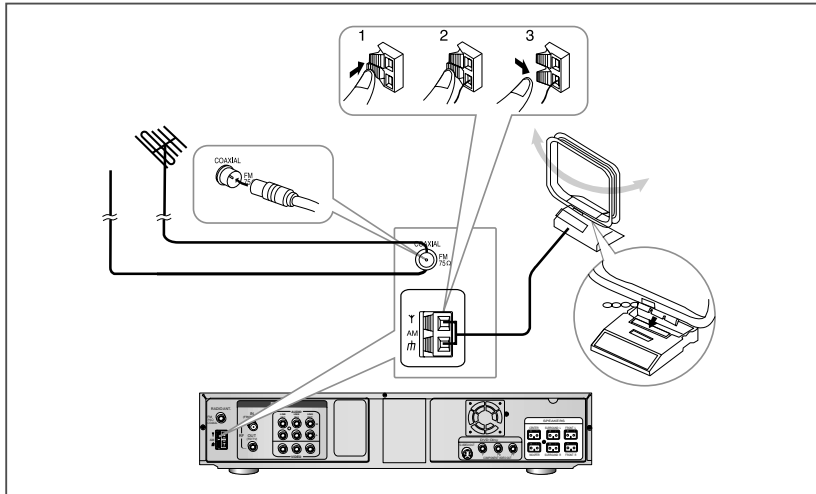


### Cooling fan

The cooling fan in the rear center of the unit ensures reliable operation and protects it from overheating.

For safety, please take note of the following points:
- Make sure that the unit is well-ventilated. Poor ventilation may cause damage by overheating.
- Make sure that the cooling fan or ventilation holes are not obstructed. (If the ventilation holes are blocked by newspaper, clothes, etc., heat builds up inside the main unit, resulting in a risk of fire.)
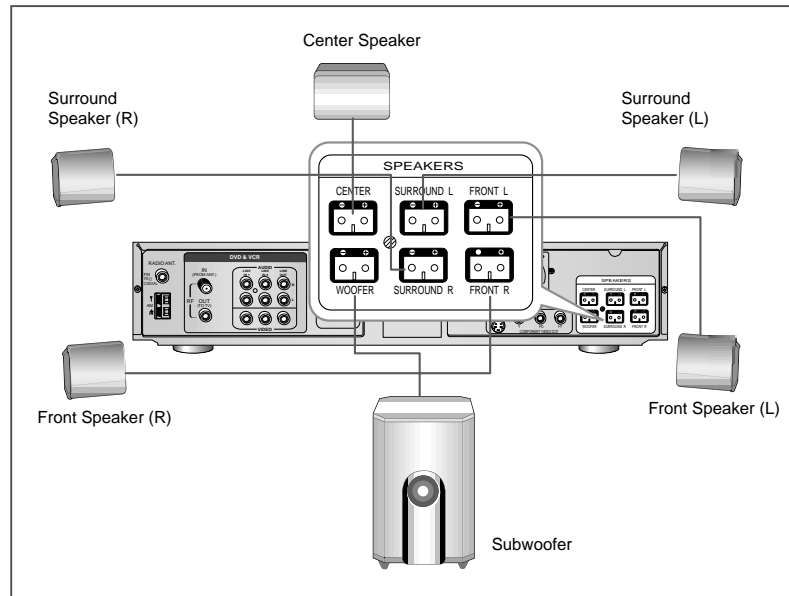
## Connecting the Speakers
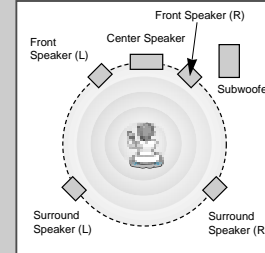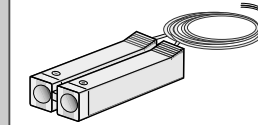
*Connect the front, center, and surround speakers and the subwoofer to the speaker terminals on the back of the main unit.*
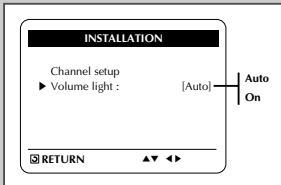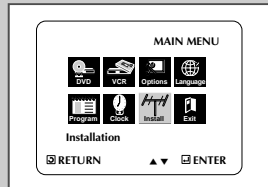
**1  **Connect the speakers to the speaker output terminals on the back of the main unit, matching the colors.

### Caution
Do not set the Speakers (except center speaker) near the TV or Monitor because the Speakers (except center speaker) are not magnetic shielded.

## Volume light



**MAIN MENU**

DVD  VCR  Options  Language
Program  Clock  Install  Exit

Installation
RETURN  ▲▼  ENTER

**INSTALLATION**

Channel setup
▶ Volume light :        [Auto]  — Auto
                                 On

RETURN    ▲▼  ◄►

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "Install"**
Using the up/down and left/right buttons, move the selection cursor to "Installation", then press ENTER to select.

**3  Select "Volume light"**
Move the selection arrow to "Volume light", then press right to select from the following options.
- Auto - Volume light (light surrounding main unit volume control) will be turned off automatically.
- On - Volume light will be bright all the time.

## Speaker Volume Control

**1  AMP Volume Control**
- Connect the speakers to the speaker jack on the rear.
- The volume can be adjusted from level 20.
- When you turn the power ON, if the last volume level was over 20, the volume will be set to 20, and if it was under 20, the volume will be set to that level.

**2  Headphone Volume Control**
- You can adjust the volume by connecting the headphone to the Headphone JACK on the front panel.
- The volume can be adjusted from level 31, and the AMP SPEAKER will be muted.
- The LINE OUT AUDIO will be output continuously while the Headphone is connected.

## Speaker setup

**1  Open "MENU"**
With the DVD in stop mode, press the MENU button.

**2  Select "DVD"**
Using the up/down and left/right buttons, move the selection cursor to "DVD Setup", then press ENTER to select.

**3  Select "Audio Options"**
Move the selection bar to "Audio Options", then press ENTER to options.

### Setting the delay time

*You can customize the sound to best fit the specific acoustics of the room by adding a delay to the sound from the center and surround speakers.*
*The delay time is initially set to 0 ms.*

◆ *You can enjoy the best sound during 5.1 channel surround playback if the distance between you and each speaker is the same. You can adjust the delay time for the center and surround speakers according to the placement of the speakers in the room.*

◆ *For the center speaker*
*If the distance of Dc is equal to or longer than the distance of Df, set the delay time to 0 ms.*
*Otherwise, change the value according to the table.*
*(A)=Df-Dc*

◆ *For the surround speakers*
*If the distance of Df is equal to the distance of Ds, set the delay time to*
*0 ms.*
*Otherwise, change the value according to the table shown on the right.*
*(B)=Df-Ds*

### Ideal speaker placement

**1  Center speaker**
Place the speaker directly over or under the TV. But, ideally, the center speaker should be positioned with the top surface flush with the front speakers..

**2  Front speakers**
Place the front speakers so that their tweeters (high-range) are aligned at about the same height as ear level and at a horizontal angle of 45° with respect to the prime listening position.

**3  Surround speakers**
Place these speakers behind your listening position, facing slightly inwards, about 2 to 3 feet (60 to 90 cm) above ear level.
If there isn't enough space behind the listening position (i.e., close to the wall), place the surround speakers at either side with their front surfaces facing each other.

**4  Subwoofer**
The position or orientation of the subwoofer is not as critical.
Place it anywhere you want.



Ideal speaker placement

L  C  SW  R
Dc  Df
Ds
Ls  Rs

Ideal speaker placement
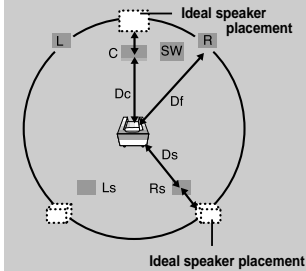
| (A) Distance (feet/inches) | Value (ms) |
|---|---|
| 0 | 0 |
| 1 feet 2 inches | 1 |
| 2 feet 3 inches | 2 |
| 3 feet 4 inches | 3 |
| 4 feet 6 inches | 4 |
| 5 feet 7 inches | 5 |

| (B) Distance (feet/inches) | Value (ms) |
|---|---|
| 0 | 0 |
| 3 feet 4 inches | 3 |
| 6 feet 8 inches | 6 |
| 10 feet 1 inches | 9 |
| 13 feet 5 inches | 12 |
| 16 feet 9 inches | 15 |
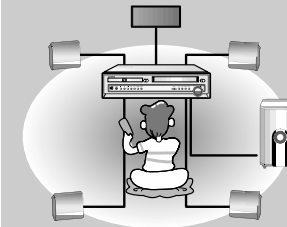
## Speaker setup
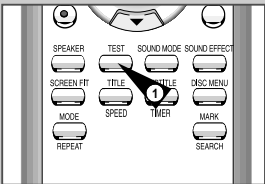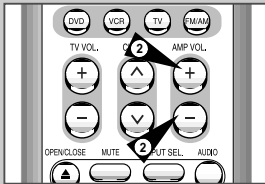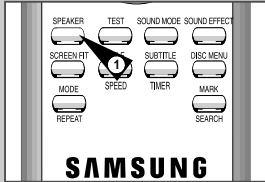
### To adjust the speaker balance

**1**  Press the SPEAKER button.

•  Each time you press the button, the speaker is selected in the order of FL→ C → FR → SR → SL → SU → VOL.
You will see this on the unit's display.

**2**  Use the + and - buttons to adjust the volume on the desired speaker.

•  The volume can be adjusted with in the range of -12 to 0 to +12.

### To test the speakers

**1**  Press the TEST button.

•  Each time you press the button, the test tone will be heard in the order of FL (Front speaker/L) → C (Center speaker) → FR (Front speaker/R) →SR (Surround speaker/R) → SL (Surround speaker/L) → SU (Subwoofer).

**2**  To stop the test tone, press the TEST button again.

➤  You can adjust the speaker balance for the selected channel using the Volume Control buttons during the test tone operation.

## Dolby Pro Logic II decoder

*Dolby Pro Logic II is a new format for playing multichannel audio signals that offers improvement over conventional Dolby Pro Logic. It can be used to decode not only sources recorded in Dolby Surround, but also regular stereo sources into five channels (front left/right, center and surround left/right). In addition, various parameters can be set according to the type of source and contents, so you can adjust the sound field with greater precision.*
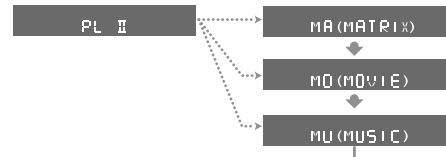
*Select the source you want to use. (CD, Video, FM/AM, Input (L1, L2, TV CH))*

**1**  Press the SOUND MODE button.
•  Press the SOUND MODE button repeatedly to select Dolby Pro Logic II.
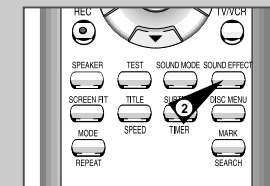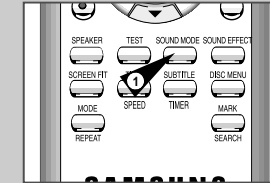
**2**  Press the SOUND EFFECT button.
•  Each time you press the button, the sound effect changes as follows.

```
PL II  ······>  MA(MATRIX)
                    ↓
                MO(MOVIE)
                    ↓
                MU(MUSIC)
```

**3**  Select the desired mode ("MATRIX", "MOVIE" or "MUSIC").
•  Matrix: Use when playing sources recorded in monaural.
•  Movie: Use this when viewing movies.
•  Music: Use this mainly for music listening.

➤  ◆  Dolby Pro Logic II may not be selected depending on the disc used. (DTS DVD, Dolby Digital 5.1, MP3)

◆  When playing a DVD recorded in 2-channel Dolby Digital, it will automatically be output in Dolby Pro Logic II.

◆  Dolby Pro Logic II operates only when CD, VIDEO, FM/AM, or INPUT (LINE1, 2 or TV Broadcast) is selected. Mode, Sound Effect cannot be selected while the DVD signal is being input.

## SOUND mode/effect function



*This feature simulates the sound of different acoustic spaces.*
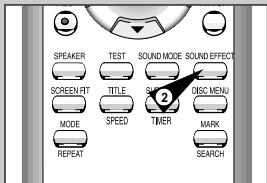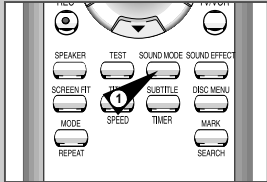
**1** Press the SOUND MODE button.

- Each time you press the button, the sound mode changes as follows.

- The SOUND mode adds an acoustic surround effect during playback of stereo analog or linear PCM digital signals.
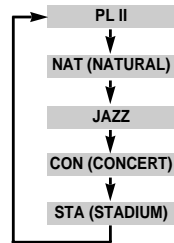
```
PL II
  ↓
NAT (NATURAL)
  ↓
JAZZ
  ↓
CON (CONCERT)
  ↓
STA (STADIUM)
```

**2** Press the SOUND EFFECT button.

- Each time you press the button, the selection alternates between EFFECT 1 and EFFECT 2.
- The higher the number, the greater the effect.
- If you press the button while in the STEREO mode, the selection alternates between STEREO and 4 STEREO.
- When in 4 STEREO mode, you'll hear equal output from the front and rear speakers.

| | Dolby Pro Logic II | | | | | |
|---|---|---|---|---|---|---|
| | **ON** | **OFF** | | | | |
| Source \ Mode | **DD PL II** | **STEREO** | **NATURAL** | **JAZZ** | **CONCERT** | **STADIUM** |
| **Video Tape** | ○ | △ | ○ | ○ | ○ | ○ |
| **TV, FM/AM** | ○ | △ | ○ | ○ | ○ | ○ |
| **AUX** | ○ | △ | ○ | ○ | ○ | ○ |

○ : 5.1ch
△ : STEREO
× : Not available

➤ ◆ The Sound mode and effects do not Work With Dolby Digital, DTS, MP3, and LPCM disc sources.

◆ Dolby Digital, DTS : 5.1-Channel speaker output

◆ MP3, LPCM : Outputs to the front left, right, and subwoofer speakers only.

◆ During DTS or MPEG playback, audio is output only to the speakers.
Audio is not output using other connections.

## Listening to radio broadcasts



*You can automatically or manually tune in to FM and AM stations to listen to radio broadcasts.*
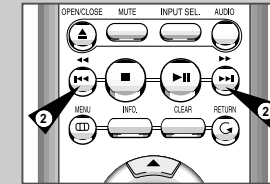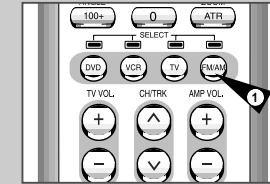
**1** Press the FM/AM button.

- Each time you press the button, the band alternates between FM and AM.

**2** Tune in to a station.

- Automatic tuning : Hold down I◀◀ / ▶▶I to begin the automatic tuning.
- Manual tuning : Press I◀◀ to tune in to a lower frequency, or press ▶▶I to tune in to a higher frequency.

➤ The FM/AM function cannot be selected while operating the DVD player or VCR.

## Presetting stations



*Example: Storing an FM station of 89.1 MHz into the preset number 02 of the FM1 band*

**1** Press the FM/AM button to select the FM band.
- Each time you press the button, the band alternates between FM and AM.
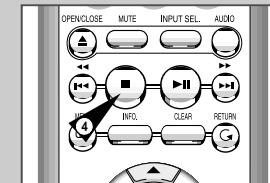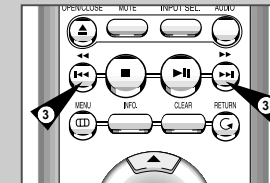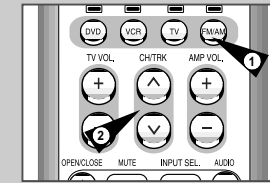
**2** Select a channel to choose the memory address to which you want to store the station.

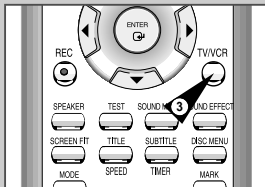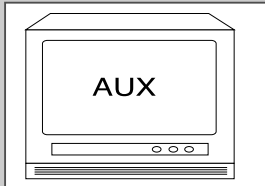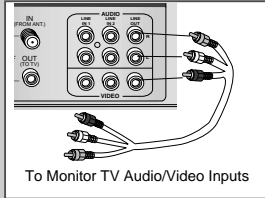**3** Use the ◀◀ and ▶▶ buttons to tune in to 89.1 FM.

**4** Press the ■ button or the ENTER button on the remote control.
- 89.1 FM is stored in FM1.

➤ To store other channels, repeat the steps 2 to 4 above.

## Monitor TV Connections


To Monitor TV Audio/Video Inputs


AUX



*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 television 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.

## Connecting Other Video Equipment


TV Audio/Video Outputs of External Device





*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 INPUT SEL. button until the playback from LINE1, LINE2 appears on your TV screen.
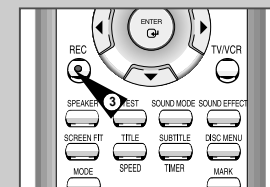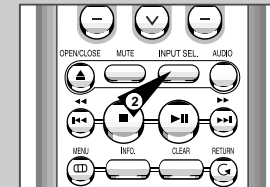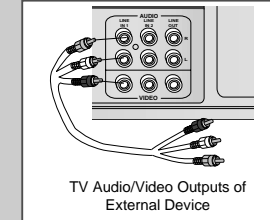
**3    Record Device**
First, play your external device. Next, press the INPUT SEL. button until the playback from LINE1, LINE2 appears on your TV screen. Then press Record on the VCR deck.

**4    Timer Record From Device**
Select LINE1 (L1), LINE2 (L2) as your record source in the Timer Record menu. All other Timer Record settings should be set in the usual manner.

## Technical Specifications

| | | |
|---|---|---|
| **Inputs** | AUDIO | 2 Stereo audio inputs, RCA Connector, -8dbm, 47KΩ, |
| | VIDEO | 2 Composite video inputs, RCA Connector, 75Ω, 1Vp-p |
| | RF | Antenna or CATV Input, F-Connector, 75Ω |
| **Outputs** | AUDIO | 1 Stereo audio outputs, RCA Connector, -8dbm, 1.5KΩ |
| | VIDEO | 1 Composite video output, RCA Connector, 75Ω, 1Vp-p |
| | VIDEO (DVD only) | 1 S-Video output, S-Connector, 75Ω, Y=1.0Vp-p, C=0.286Vp-p |
| | | 1 Component video output, 75Ω, Y=1.0Vp-p, Pb=0.7Vp-p, Pr=0.7Vp-p |
| | RF | Channel 3 or 4 |
| **VCR** | 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 |
| | | 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) |
| **DVD** | DISC COMPATIBILITY | CD, CD-R, CD-R/W, DVD-Video, CD-Digital Audio (5" and 3.5"), MP3 files on CD-ROM |
| | S/N RATIO | 110 dB |
| | DYNAMIC RANGE | 100 dB |
| **SYSTEM** | POWER REQUIREMENT | 120V AC, 60 Hz |
| | ENVIRONMENT | 41-104ºF (5-40ºC); 10%-75% humidity |
| | WEIGHT | 5.9 kg (Combo) + 10.2kg (SPEAKER) = 16.1kg |

| | | FM | AM |
|---|---|---|---|
| **RECEIVER** | SENSITIVITY | 15 dB | 64 dB |
| | S/N RATIO | 60 dB | 35 dB |
| | THD | 0.5 % | 2% |
| **AMP** | FREQ. RESPONSE | 20 Hz ~ 20 kHz | |
| | S/N RATIO | 75 dB | |
| | CHANNEL SEPERATION | 50 dB | |

| | | 5.1 CHANNEL SPEAKER SYSTEM | |
|---|---|---|---|
| **SPEAKER** | SPEAKER SYSTEM | FRONT/CENTER/SURROUND | SUBWOOFER SPEAKER |
| | IMPEDANCE | 6Ω X 5 | 3Ω |
| | FREQ. RESPONSE | 55Hz ~ 23kHz | 30Hz ~ 400Hz |
| | O.S.L | 87dB/W/M | 86dB/W/M |
| | SIZE | FRONT SURROUND 100(W)x129(D)x100(H) | 250(W) x 250(D) x 380(H) |
| | | CENTER 150(W)x129(D)x100(H) | |
| | WEIGHT | FRONT SURROUND 0.72kg x 4 = 2.88kg | 5.9kg |
| | | CENTER 1.1kg | |

# SAMSUNG COMBINATION DVD & VCR

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**(*90 Days Parts and Labor for Commercial Use)**

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