

TOSHIBA



DVD VIDEO PLAYER & VIDEO CASSETTE RECORDER

SD-V280

OWNER'S MANUAL

VHS Hi-Fi

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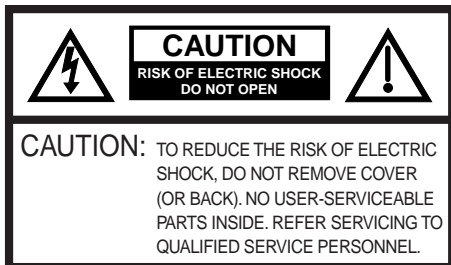
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IMPORTANT SAFEGUARDS



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, do not expose this appliance to rain or moisture.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

WARNING: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance with the FCC Rules could void the user's authority to operate this equipment.

CAUTION: THIS DIGITAL VIDEO PLAYER EMPLOYS A LASER SYSTEM.

TO ENSURE PROPER USE OF THIS PRODUCT, PLEASE READ THIS USER'S GUIDE CAREFULLY AND RETAIN FOR FUTURE REFERENCE. SHOULD THE UNIT REQUIRE MAINTENANCE, CONTACT AN AUTHORIZED SERVICE LOCATION-SEE SERVICE PROCEDURE.

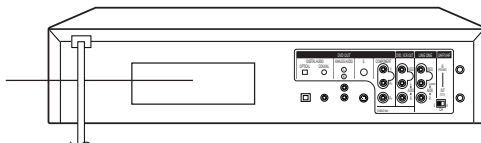
USE OF CONTROLS, ADJUSTMENTS OR THE PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

TO PREVENT DIRECT EXPOSURE TO LASER BEAM, DO NOT TRY TO OPEN THE ENCLOSURE. VISIBLE LASER RADIATION MAY BE PRESENT WHEN THE ENCLOSURE IS OPENED. DO NOT STARE INTO BEAM.

Location of the required Marking

The rating sheet and the safety caution are on the rear of the unit.

CERTIFICATION: COMPLIES WITH FDA RADIATION PERFORMANCE STANDARDS, 21 CFR SUBCHAPTER J.



IMPORTANT SAFEGUARDS

1. READ INSTRUCTIONS

All the safety and operating instructions should be read before the unit is operated.

2. RETAIN INSTRUCTIONS

The safety and operating instructions should be retained for future reference.

3. HEED WARNINGS

All warnings on the unit and in the operating instructions should be adhered to.

4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

5. CLEANING

Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.

Use a damp cloth for cleaning the exterior cabinet only.

6. ATTACHMENTS

The manufacturer of this unit does not make any recommendations for attachments, as they may cause hazards.

7. WATER AND MOISTURE

Do not use this unit near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

8. ACCESSORIES

Do not place this unit on an unstable cart, stand, tripod, bracket, or table.

The unit may fall, causing serious injury, and serious damage to the unit.

- 8A.** An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

9. VENTILATION

Slots and openings in the cabinet back or bottom are provided for ventilation, to ensure reliable operation of the unit, and to protect it from overheating.

These openings must not be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed near or over a radiator or heat source. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and/or the manufacturer's instructions have been adhered to.

10. POWER SOURCE

This unit should be operated only from the type of power source indicated on the rating plate. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.

11. GROUNDING OR POLARIZATION

This unit is 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, if your unit is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This too, is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

12. 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 appliance.

PORTABLE CART WARNING
(symbol provided by RETAC)



S3125A

IMPORTANT SAFEGUARDS

13. LIGHTNING

To protect your unit from 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 unit due to lightning and power line surges.

14. POWER LINES

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, 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.

15. OVERLOADING

Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.

16. OBJECT AND LIQUID ENTRY

Do not push objects through any openings in this unit, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid into the unit.

17. OUTDOOR ANTENNA GROUNDING

If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges, Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

18. SERVICING

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. DAMAGE REQUIRING SERVICE

Unplug this unit 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 unit.
- c. If the unit has been exposed to rain or water.
- d. If the unit 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 unit to its normal operation.
- e. If the unit has been dropped or the cabinet has been damaged.
- f. When the unit exhibits a distinct change in performance, this indicates a need for service.

20. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part.

Unauthorized substitutions may result in fire, electric shock or other hazards.

21. SAFETY CHECK

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

22. HEAT

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

23. DISC TRAY

Keep your fingers well clear of the disc tray as it is closing. It may cause serious personal injury.

24. CONNECTING

When you connect the product to other equipment, turn off the power and unplug all of the equipment from the wall outlet. Failure to do so may cause an electric shock and serious personal injury. Read the owner's manual of the other equipment carefully and follow the instructions when making any connections.

IMPORTANT SAFEGUARDS / Power Source

25. LASER BEAM

Do not look into the opening of the disc tray or ventilation opening of the product to see the source of the laser beam. It may cause sight damage.

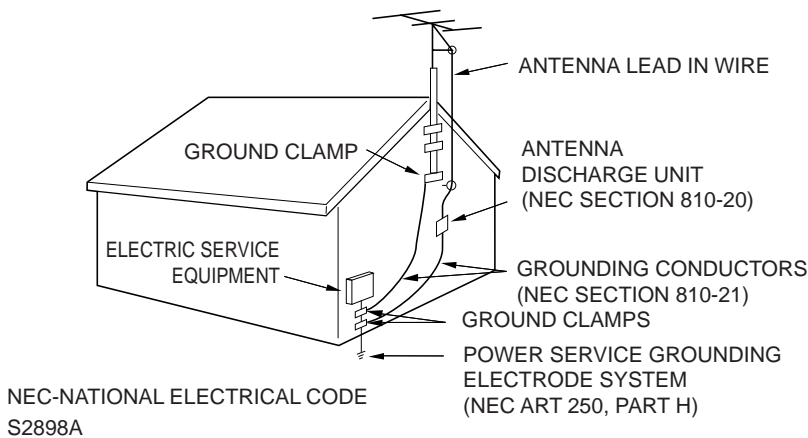
26. DISC

Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.

27. NOTE TO CATV SYSTEM INSTALLER

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

EXAMPLE OF ANTENNA GROUNDING AS PER THE NATIONAL ELECTRICAL CODE



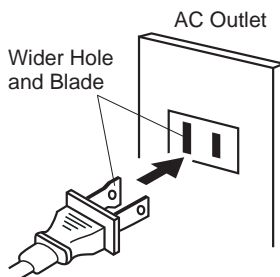
CONDENSATION

Moisture will form in the operating section of the DVD/VCR if the player is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly. When this happens, the DVD/VCR's performance will be impaired.

To prevent this, let the DVD/VCR stand in its new surroundings for about an hour before switching it on, or make sure that the room temperature rises gradually.

Condensation may also form during the summer if the DVD/VCR is exposed to the breeze from an air conditioner. In such cases, change the location of the DVD/VCR.

Power source



Polarized AC Cord Plug
(One blade is wider than the other.)

TO USE AC POWER SOURCE

Use the AC polarized line cord provided for operation on AC. Insert the AC cord plug into a standard 120V 60Hz polarized AC outlet.

Notes:

- Never connect the AC line cord plug to other than the specified voltage (120V 60Hz). Use the attached power cord only.
- If the polarized AC cord does not fit into a non-polarized AC outlet, do not attempt to file or cut the blade. It is the user's responsibility to have an electrician replace the obsolete outlet.
- If you cause a static discharge when touching the unit and the unit fails to function, simply unplug the unit from the AC outlet and plug it back in. The unit should return to normal operation.

Precautions

Notes on handling

- When shipping the DVD/VCR, the original shipping carton and packing materials come in handy. For maximum protection, repack the unit as it was originally packed at the factory.
- Do not use volatile liquids, such as insect spray, near the DVD/VCR. Do not leave rubber or plastic products to contact the DVD/VCR for a prolonged period. They will leave marks on the finish.
- The top and rear panels of the DVD/VCR may become warm after a long period of use. This is not a malfunction.
- When the DVD/VCR is not in use, be sure to remove the disc and the video cassette turn off the power.
- If you do not use the DVD/VCR for a long period, the unit may not function properly in the future. Turn on and use the DVD/VCR occasionally.

Notes on locating

- Place the DVD/VCR on a level surface. Do not use it on a shaky or unstable surface such as a wobbling table or inclined stand. The loaded disc or the video tape may become dis-aligned and damage the DVD/VCR.
- When you place this DVD/VCR near a TV, radio, or VCR, the playback picture may become poor and the sound may be distorted. In this case, place the DVD/VCR away from the TV, radio, or VCR.

Notes on cleaning

Use a soft, dry cloth for cleaning.

- For stubborn dirt, soak the cloth in a weak detergent solution, wring well and wipe. Use a dry cloth to wipe it dry.
Do not use any type of solvent, such as thinner and benzine, as they may damage the surface of the DVD/VCR.
- If you use a chemical saturated cloth to clean the unit, follow that product's instructions.

To obtain a clear picture

The DVD/VCR is a high technology, precision device. If the video head, the head drum, the optical pick-up lens or disc drive parts are dirty or worn down, the picture quality will deteriorate. To obtain a clear picture, we recommend regular inspection and maintenance (cleaning or parts replacement) every 1,000 hours of use depending on the operating environment. For details, contact your nearest dealer.

Notes on moisture condensation

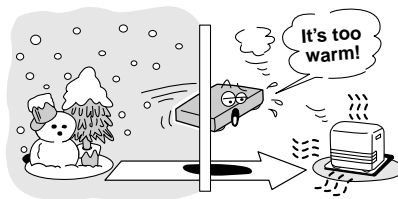
Moisture condensation damages the DVD/VCR. Please read the following carefully.

Moisture condensation occurs, for example, when you pour a cold drink into a glass on a warm day. Drops of water form on the outside of the glass. In the same way, moisture may condense on the head drum or the optical pick-up lens inside this unit, one of the most crucial internal parts of the DVD/VCR.



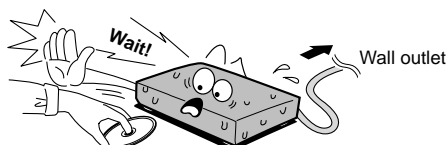
■ **Moisture condensation occurs during the following cases.**

- When you bring the DVD/VCR directly from a cold place to a warm place.
- When you use the DVD/VCR in a room where you just turned on the heater, or a place where the cold wind from the air conditioner directly hits the unit.
- In summer, when you use the DVD/VCR in a hot and humid place just after you move the unit from an air conditioned room.
- When you use the DVD/VCR in a humid place.



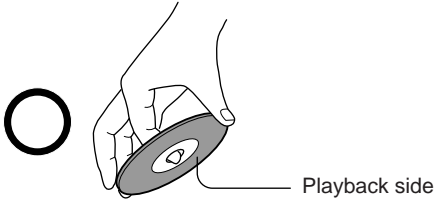
■ **Do not use the DVD/VCR when moisture condensation may occur.**

If you use the DVD/VCR in such a situation, it may damage discs and internal parts. Remove the disc or the video tape, connect the power cord of the DVD/VCR to the wall outlet, turn on the DVD/VCR, and leave it for two or three hours. After two or three hours, the DVD/VCR will have warmed up and evaporated any moisture. Keep the DVD/VCR connected to the wall outlet and moisture condensation will seldom occur.



On handling discs

- Do not touch the playback side of the disc.

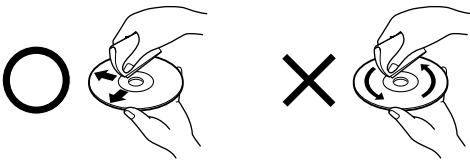


- Do not attach paper or tape to discs.



On cleaning discs

- Fingerprints and dust on the disc cause picture and sound deterioration. Wipe the disc from the center outwards with a soft cloth. Always keep the disc clean.



- If you cannot wipe off the dust with a soft cloth, wipe the disc lightly with a slightly moistened soft cloth and finish with a dry cloth.
- Do not use any type of solvent such as thinner, benzine, commercially available cleaners or antistatic spray for vinyl LPs. It may damage the disc.

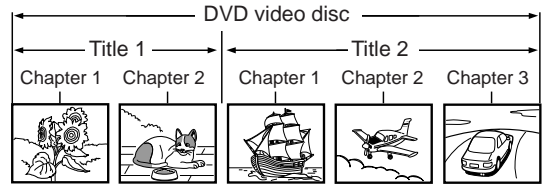
On storing discs

- Do not store discs in a place subject to direct sunlight or near heat sources.
- Do not store discs in places subject to moisture and dust such as a bathroom or near a humidifier.
- Store discs vertically in a case. Stacking or placing objects on discs outside of their case may cause warping.

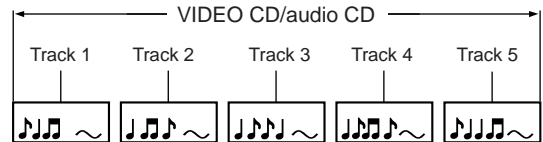
Structure of disc contents

Normally, DVD video discs are divided into titles, and the titles are sub-divided into chapters. VIDEO CDs and audio CDs are divided into tracks.

DVD video disc



VIDEO CD/audio CD



Each title, chapter or track is assigned a number, which is called "title number", "chapter number" or "track number" respectively.

There may be discs that do not have these numbers.

Notes on copyright

It is forbidden by law to copy, broadcast, show, broadcast on cable, play in public, and rent copyrighted material without permission.

This device does not tape-record copy protected DVD Video Discs.

The device is not to be used for copying copyrighted content without the express written permission of the copyright owner.

Obtaining such permission is the sole responsibility of the user.

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



Notes on discs (continued)

About this owner's manual

This owner's manual explains the basic instructions of this DVD/VCR. Some DVD video discs are produced in a manner that allows specific or limited operation during playback. As such, the DVD/VCR may not respond to all operating commands. This is not a defect in the DVD/VCR. Refer to instruction notes of discs.

"Ⓞ" may appear on the TV screen during operation. A "Ⓞ" means that the operation is not permitted by the DVD/VCR or the disc.

Notes on region numbers

The region number of this DVD/VCR is 1. If region numbers, which stand for their playable area, are printed on your DVD video disc and you do not find  or , disc playback will not be allowed by the player. (In this case, the DVD/VCR will display a message on-screen.)

On VIDEO CDs

This DVD/VCR supports VIDEO CDs equipped with the PBC (Version 2.0) function. (PBC is the abbreviation of Playback Control.) You can enjoy two playback variations depending on types of discs.

- **VIDEO CD not equipped with PBC function (Version 1.1)**

Sound and movie can be played on this DVD/VCR in the same way as an audio CD.

- **VIDEO CD equipped with PBC function (Version 2.0)**

In addition to operation of a VIDEO CD not equipped with the PBC function, you can enjoy playback of interactive software with search function by using the menu displayed on the TV screen (Menu Playback). Some of the functions described in this owner's manual may not work with some discs.

Playable discs

This DVD/VCR can play the following discs.

	Disc Mark	Contents	Disc Size	Maximum playback time
DVD video discs		Audio + video (moving pictures)	12 cm	Approx. 4 hours (single sided disc)
				Approx. 8 hours (double sided disc)
			8 cm	Approx. 80 minutes (single sided disc)
				Approx. 160 minutes (double sided disc)
VIDEO CDs		Audio + video (moving pictures)	12 cm	Approx. 74 minutes
			8 cm	Approx. 20 minutes
Audio CDs		Audio	12 cm	Approx. 74 minutes
			8 cm (CD single)	Approx. 20 minutes
The following discs are also available. <ul style="list-style-type: none"> ● CD-R ● CD-RW CD-R/RW discs recorded by CD-DA method can be played. Some CD-R/RW discs may be incompatible.				

- You cannot play discs other than those listed above.
- You cannot play discs of DVD-RAM, DVD-RW, etc., or non standardized discs even if they may be labeled as above.
- This DVD/VCR uses the NTSC color system, and cannot play DVD video discs recorded in any other color system (PAL, SECAM, etc.).

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Function setup (DVD)

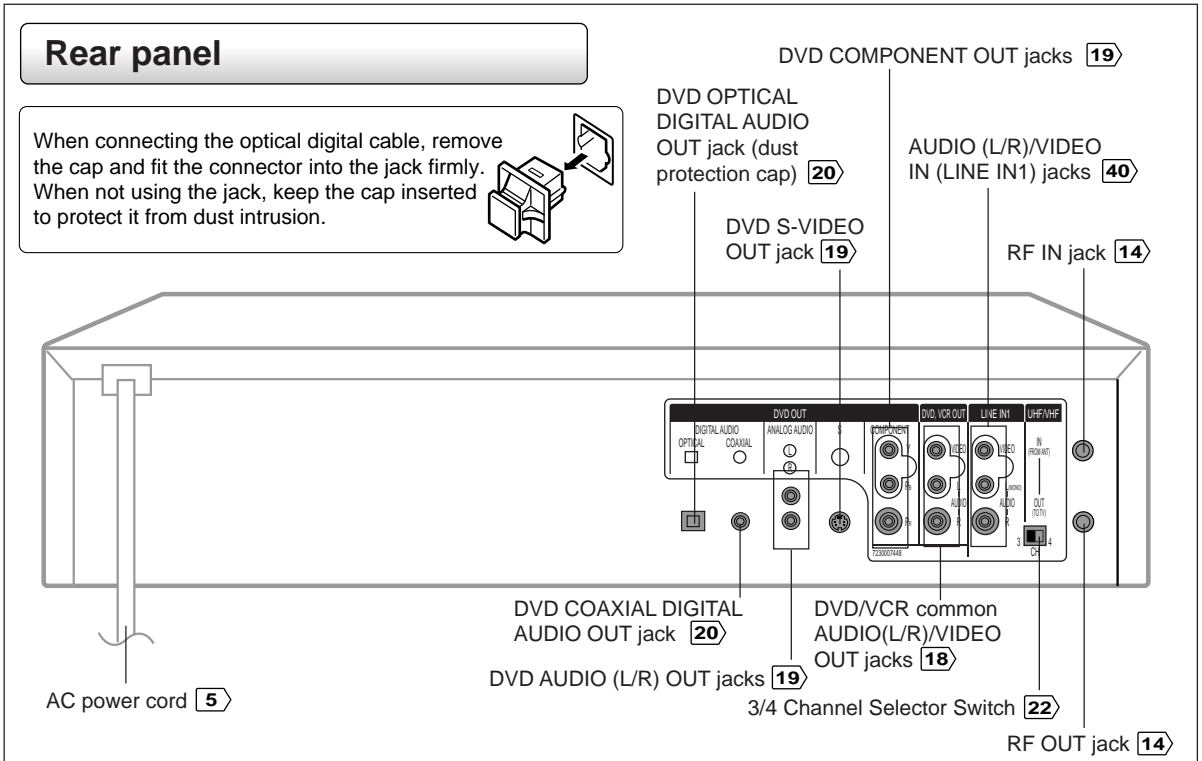
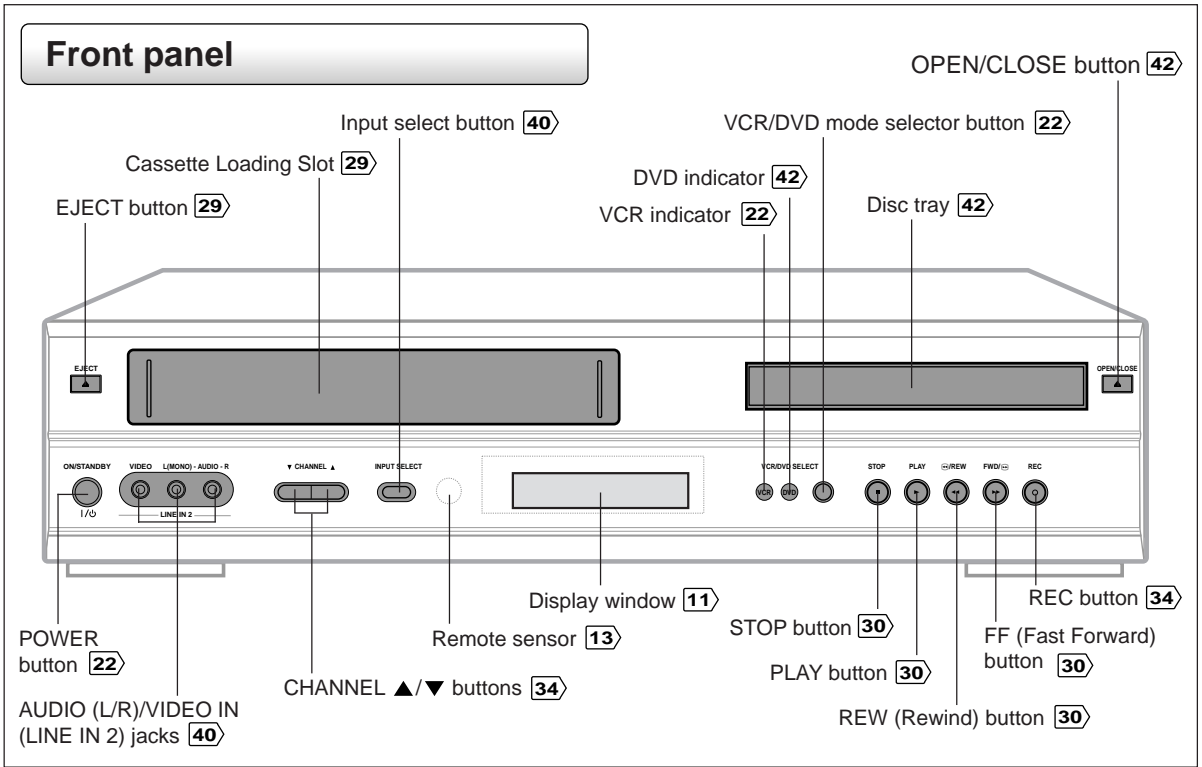
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Others

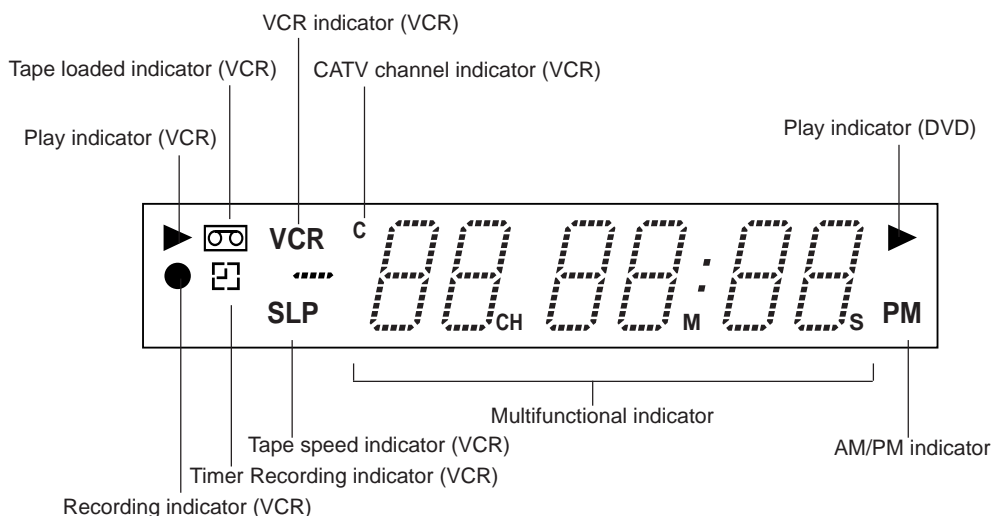
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Identification of Controls

See the page in for details.



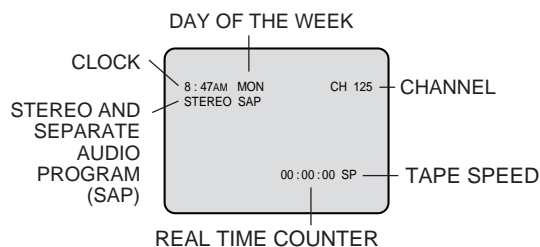
Display window



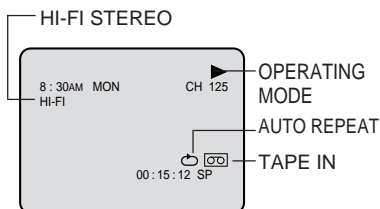
VCR operation Status

Press **CALL** to display information the screen.
To cancel the display, press **CALL** again.

While watching TV



While operating a tape

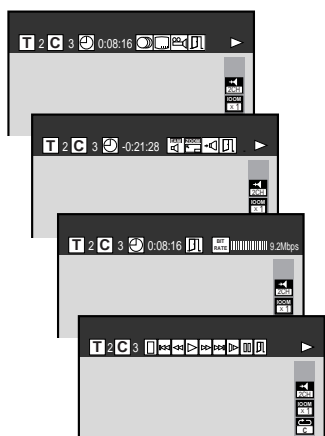


VCR Icons

- Recording : ●
- Rec/Pause : ●||
- Play : ►
- Stop : ■
- Eject : ▲
- ⌂ : Auto Repeat


DVD operation Status

Each time you press **DISPLAY**, the on-screen display changes as follows.

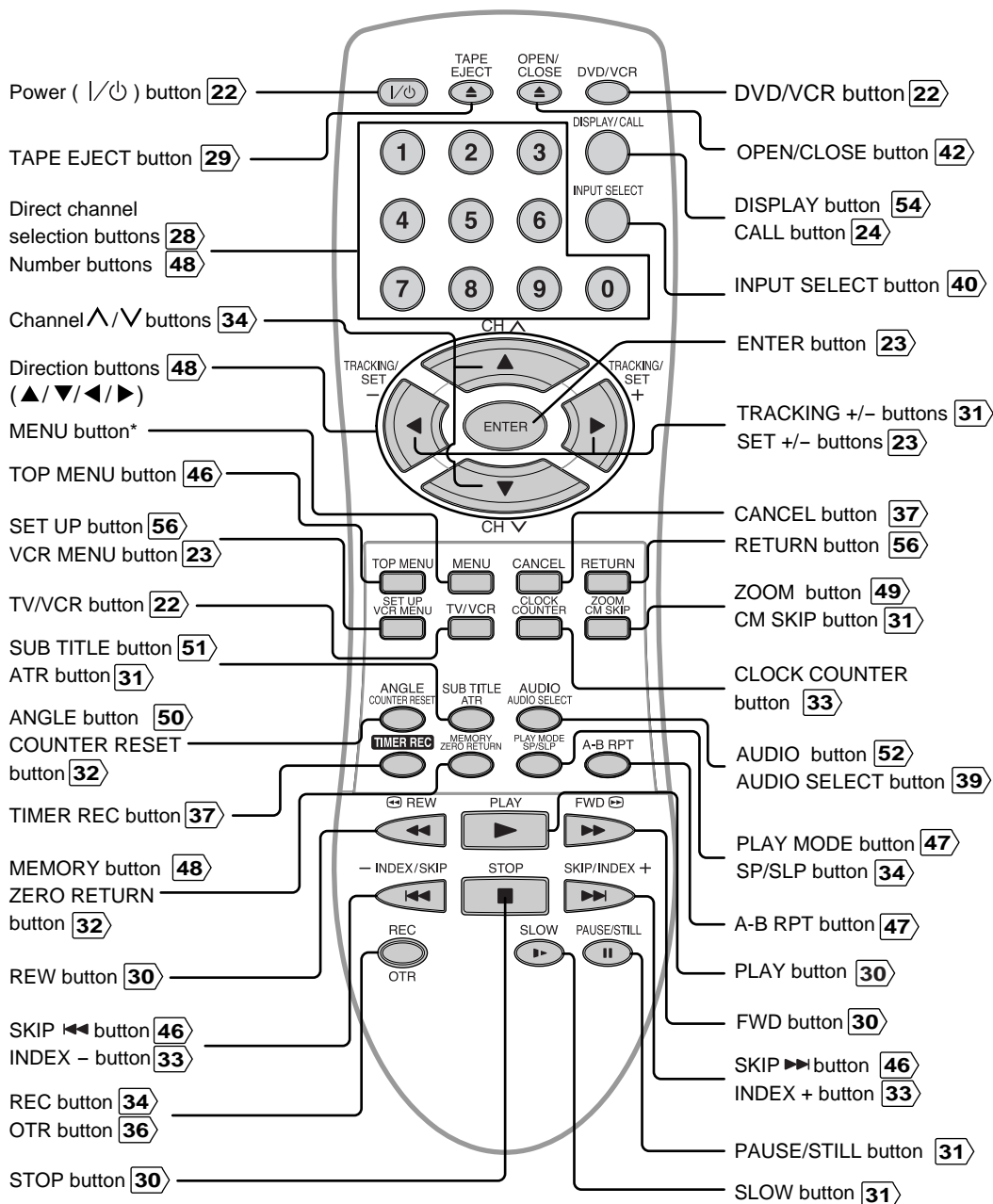


- T** : Title number (Track number)
 - C** : Chapter number
 - ⌚** : Elapsed (remaining) time of the current title
 - 🔊** : Audio setting
 - 📄** : Subtitle setting
 - 🎧** : Angle setting
 - 🗣️** : E.A.M. (Enhanced Audio Mode) setting
 - 🔍** : To zoom a picture
 - 🔊** : Audio Out Select setting
 - ⏏** : To stop playback
 - ⏮** : Playback starts from the beginning of the current chapter or track.
 - ⏪** : Fast reverse playback
 - ▶** : To start playback
 - ⏩** : Fast forward playback
 - ⏭** : To locate succeeding chapters or tracks.
 - ⏭** : To begin slow motion playback
 - ⏸** : To pause playback
 - ⏴** : To turn off the display
- Data transfer rate (Mbit/s)
CD TEXT

Identification of Controls (continued)

The instructions in this manual describe the functions on the remote control. See the page in  for details.

Remote control

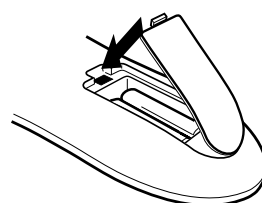
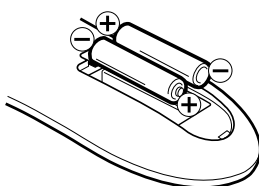
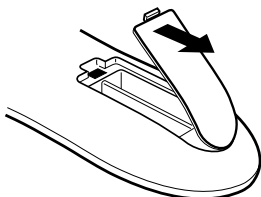


* MENU button

Use the MENU button to display the menu included on many DVD video discs. To operate a menu, follow the instructions in "Locating a title using the top menu." **46**

Inserting Batteries

- 1** Open the battery compartment cover in the direction of the arrow.
- 2** Install two "AAA" batteries (supplied), paying attention to the polarity diagram in the battery compartment.
- 3** Replace the compartment cover.



Battery precautions

The precautions below should be followed when using batteries in this device:

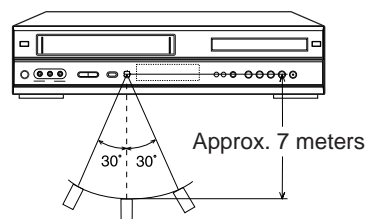
1. Use only the size and type of batteries specified.
2. Be sure to follow the correct polarity when installing the batteries as indicated in the battery compartment. Reversed batteries may cause damage to the device. To avoid a potential short circuit, insert the "-" end first.
3. Do not mix different types of batteries together (e.g. Alkaline and Carbon-zinc) or old batteries with fresh ones.
4. If the device is not to be used for a long period of time, remove the batteries to prevent damage or injury from possible battery leakage.
5. Do not try to recharge batteries not intended to be recharged; they can overheat and rupture. (Follow battery manufacturer's directions.)

Remote control basics

- Press **POWER** (I/⏻) to turn the DVD/VCR on or off.
- Select your desired operating mode (DVD or VCR) using **DVD/VCR**. (DVD or VCR indicator on the front panel will show you which mode is selected.)
- Press **CH ^** or **CH v** to move through the channels one channel at a time.
- The **CH ^/v** (▲/▼) and **SET +/-** (◀/▶) are also used to navigate on-screen menu system.
- You can directly access specific channels using **Number buttons**.
- Each press of **DVD/VCR** on the remote control, switches the screen between the VCR screen (VCR mode) and the DVD screen (DVD mode).

Operation

- Aim the remote control at the remote sensor and press control buttons to operate.
- Operate the remote control within 30° angle on either side of the remote sensor, up to a distance of Approx. 7 meters.



Antenna connections

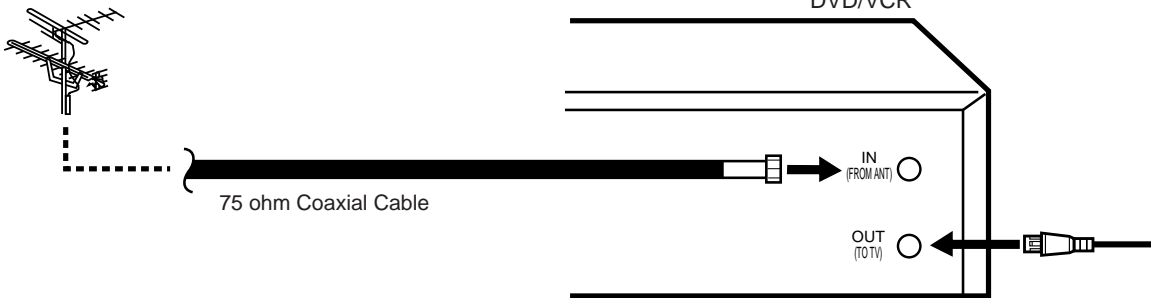
If you are using an antenna system, follow these instructions. If you are a cable (CATV) subscriber, skip ahead to page 16 for the proper connections.

Antenna to DVD/VCR connection

The DVD/VCR must be connected "between" the antenna and the TV. First, disconnect the antenna from the TV and connect it to the DVD/VCR. Then connect the DVD/VCR to the TV. Below are 3 common methods of connecting an antenna system to a DVD/VCR. Find the type of antenna system you are using and follow the connection diagram.

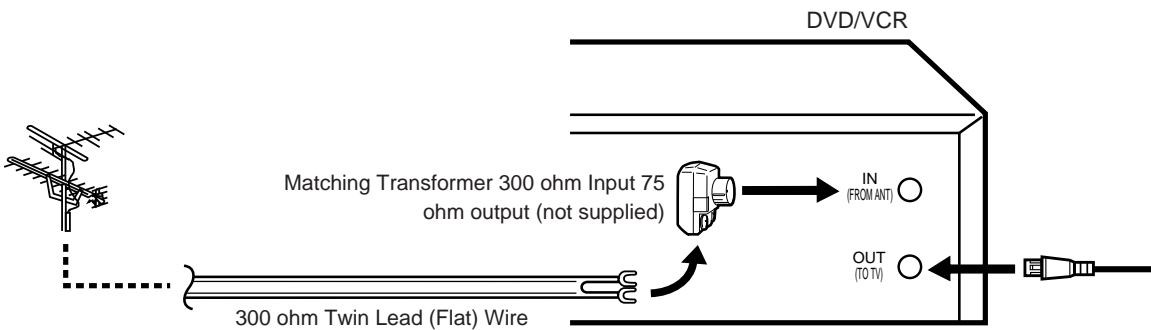
1

Combination VHF/UHF Antenna with 75 ohm Coaxial Cable



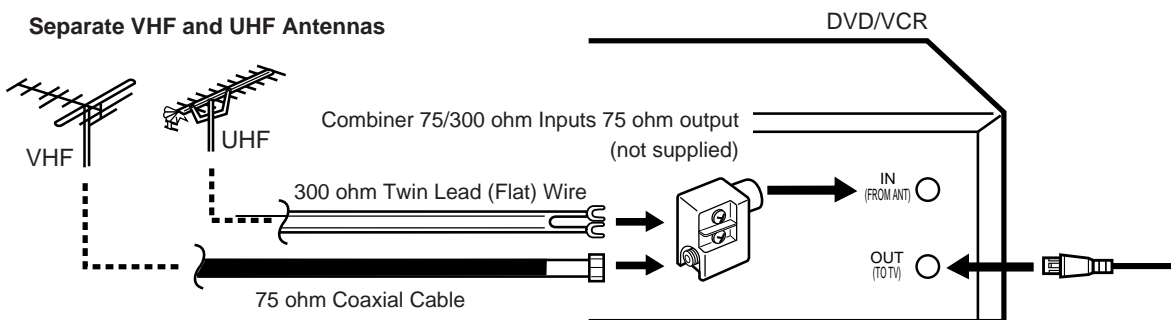
2

Combination VHF/UHF Antenna with 300 ohm Twin Lead (Flat) Wire



3

Separate VHF and UHF Antennas



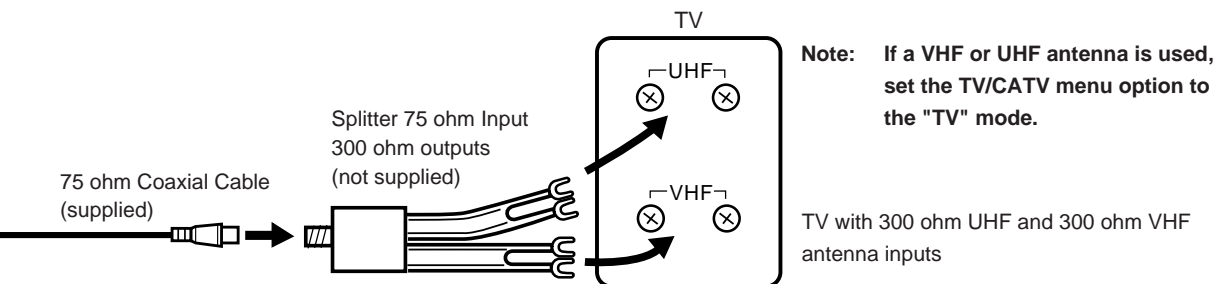
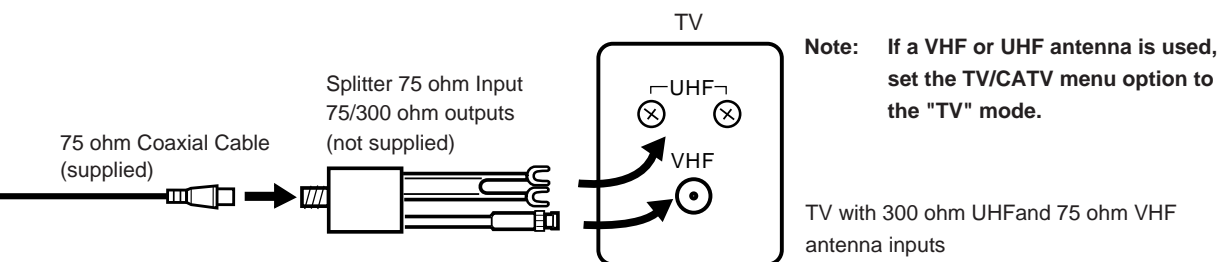
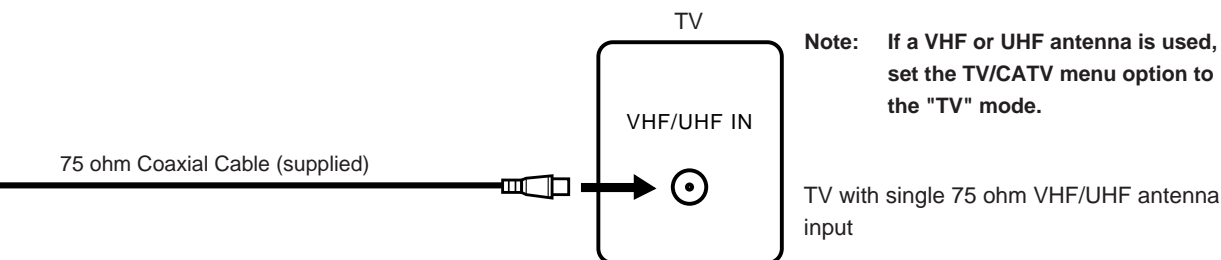
Note: If both VHF and UHF antennas have 300 ohm twin lead (flat) wires, use a combiner having two 300 ohm inputs and one 75 ohm output.

- Notes:**
- A clear picture will not be obtained by the DVD/VCR unless the antenna signal is good. Connect the antenna to the DVD/VCR properly.
 - For better quality recording, an indoor antenna or a telescopic antenna is not recommended. The use of an outdoor type antenna is required.
 - If you are not sure about the connection, please refer to qualified service personnel.

DVD/VCR to TV connection

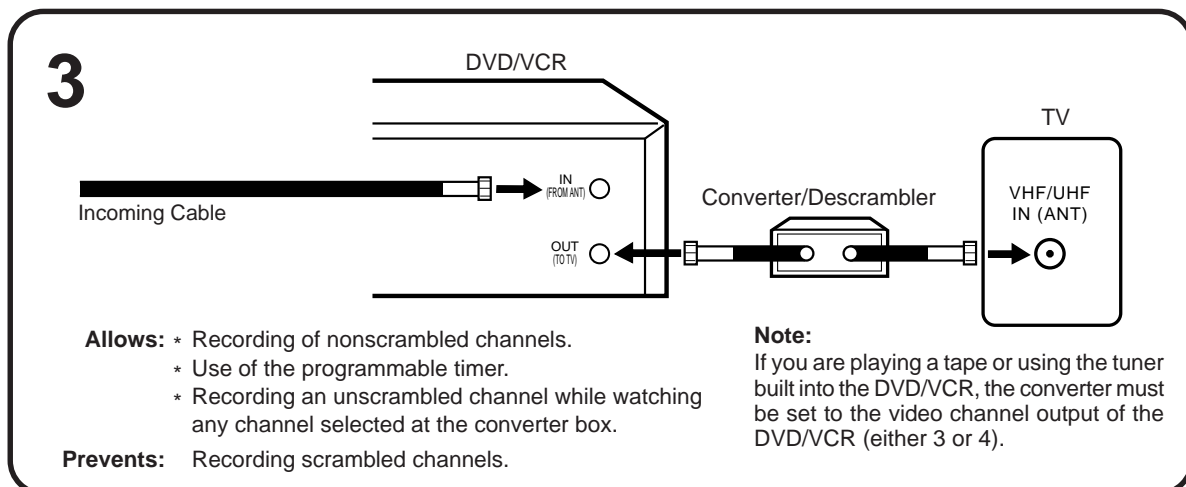
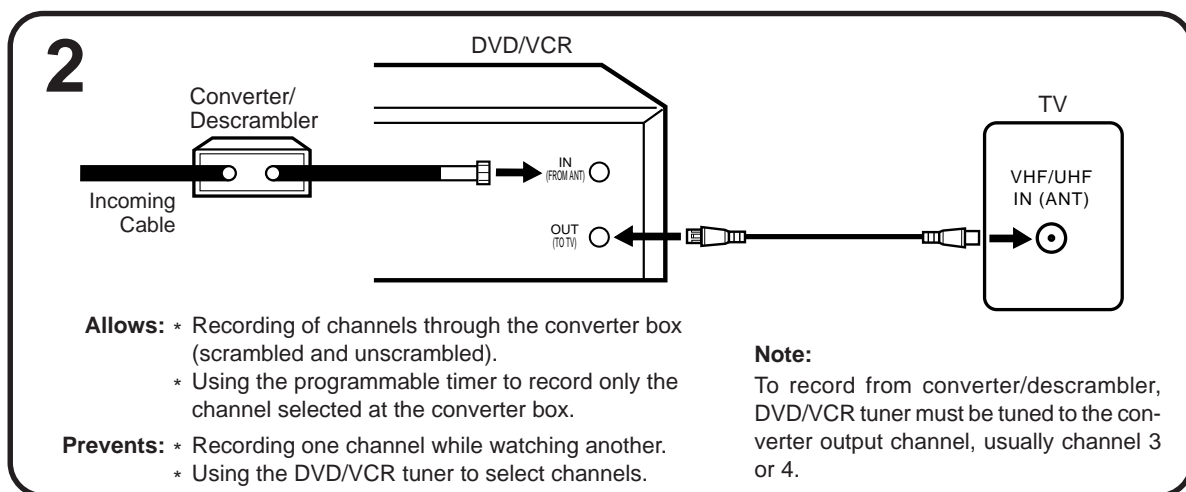
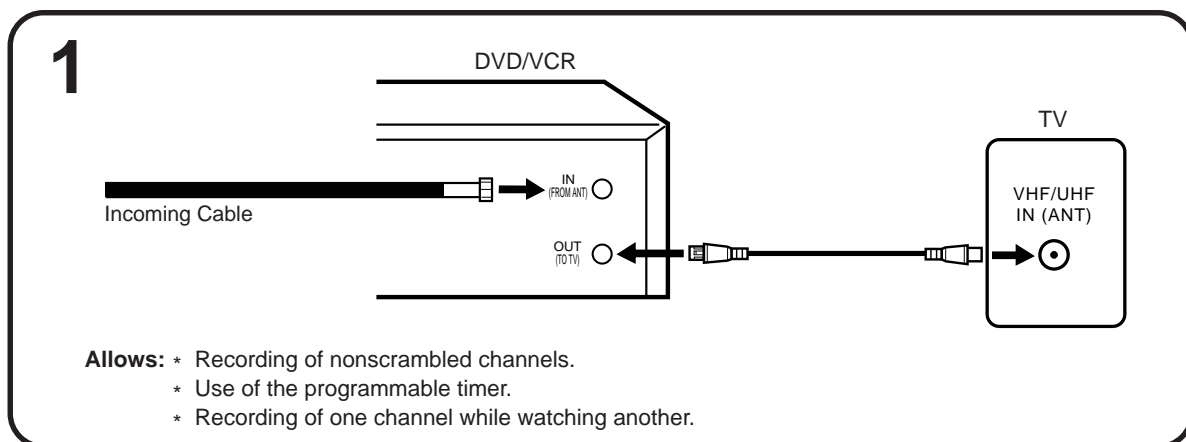
After you have connected the antenna to the DVD/VCR, you must connect the DVD/VCR to the TV. Below are 3 common methods of connecting your DVD/VCR to a TV. Find the type of TV you are using and follow the connection diagram.

This DVD/VCR has a single 75 ohm output for connection to a TV. If your TV has separate VHF and UHF antenna inputs (numbers 2 and 3 below), use a splitter to connect the DVD/VCR to the TV for VHF and UHF reception.



CATV (CABLE TV) connections

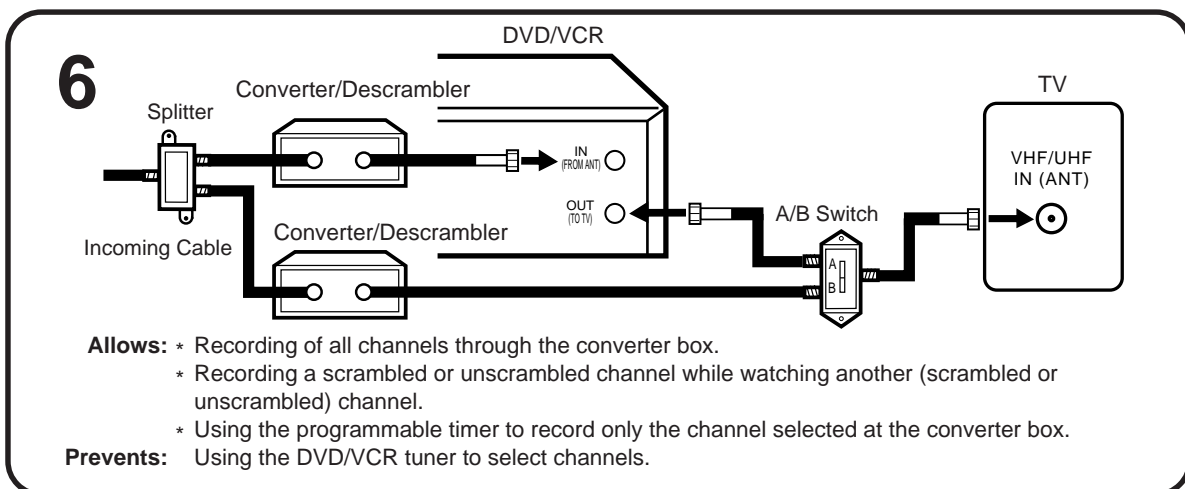
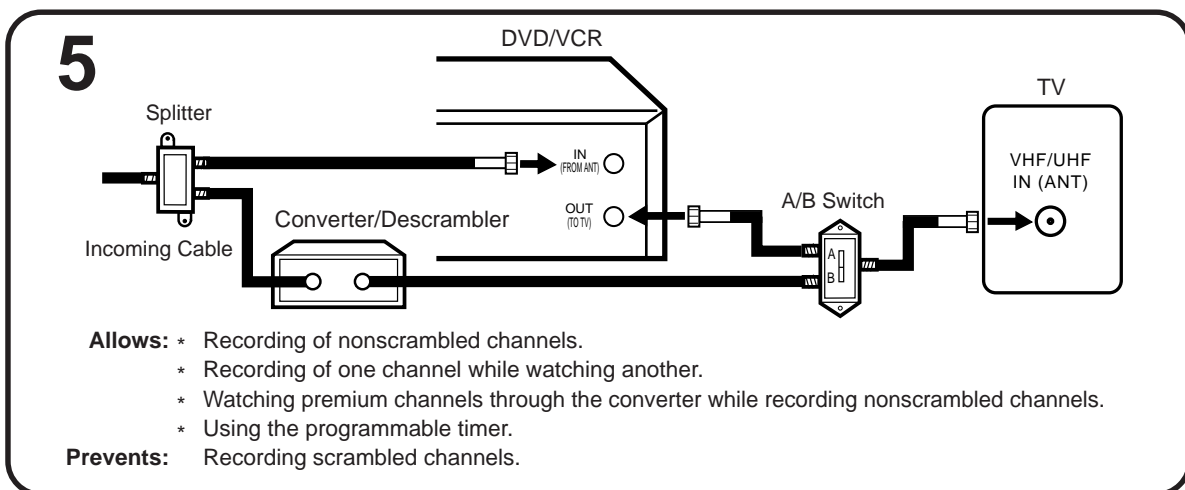
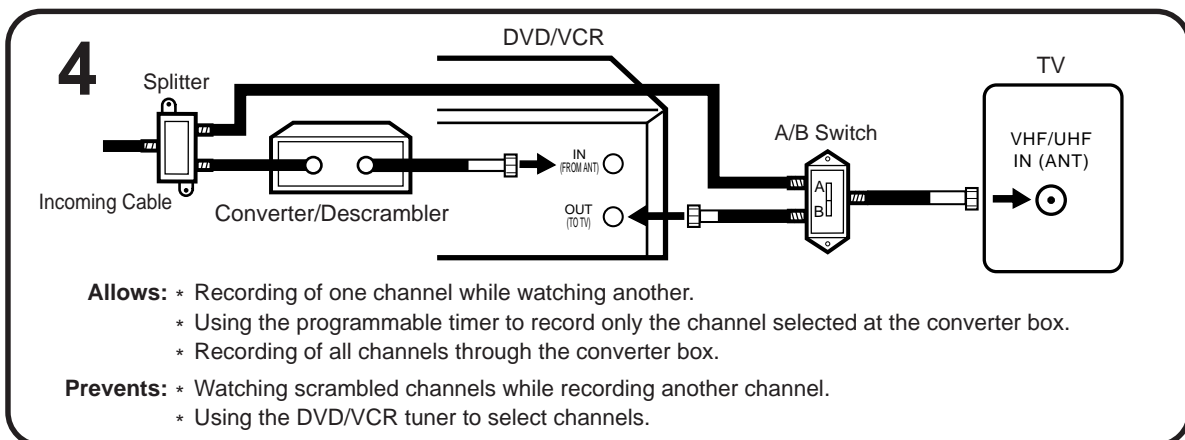
Many cable companies offer services permitting reception of extra channels including pay or subscription channels. This DVD/VCR has an extended tuning range and can be tuned to most cable channels without using a cable company supplied converter box, except for those premium channels which are intentionally scrambled. If you subscribe to a premium channel which is scrambled, you must have a descrambler box for proper reception.



Note: Whenever a Converter/Descrambler box is placed before the DVD/VCR, you must tune the DVD/VCR to the output of the Converter/Descrambler box, usually channel 3 or 4.

IMPORTANT: Make sure the TV/CATV menu option is set to the "CATV" mode.

This DVD/VCR cannot receive scrambled programs since it does not contain a descrambler. In order to receive scrambled programs, your existing descrambler must be used. Descrambler boxes are available from cable companies. Consult your local cable company for more information concerning connection to their descrambler equipment. There are many ways to connect your DVD/VCR to a cable system. Below are six common methods of connection.



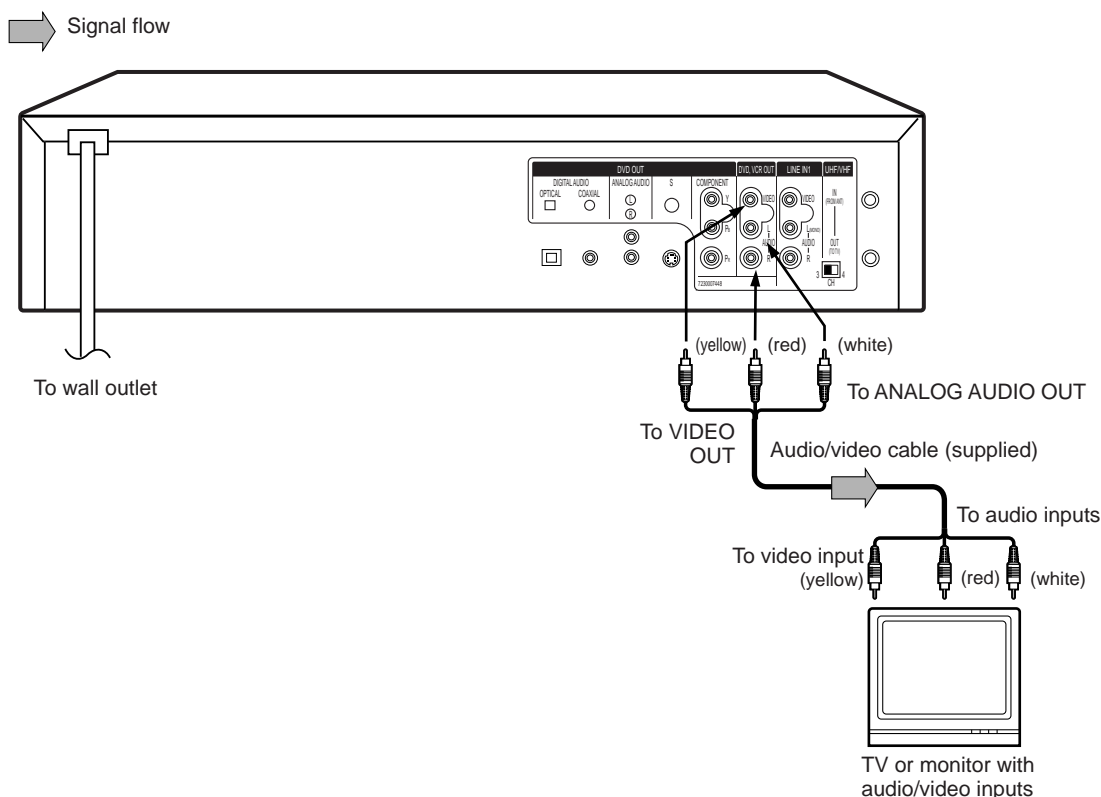
Connecting to a TV

Connect the DVD/VCR to your TV.

For details of output sound, see **52**.

Notes: This method transports VHS and DVD-video signals. For enhanced DVD-video performance, we recommend you also connect the S-Video on ColorStream® component video outputs to your TV/monitor. (see page 19.)

Connecting to a TV



- Make the following setting.

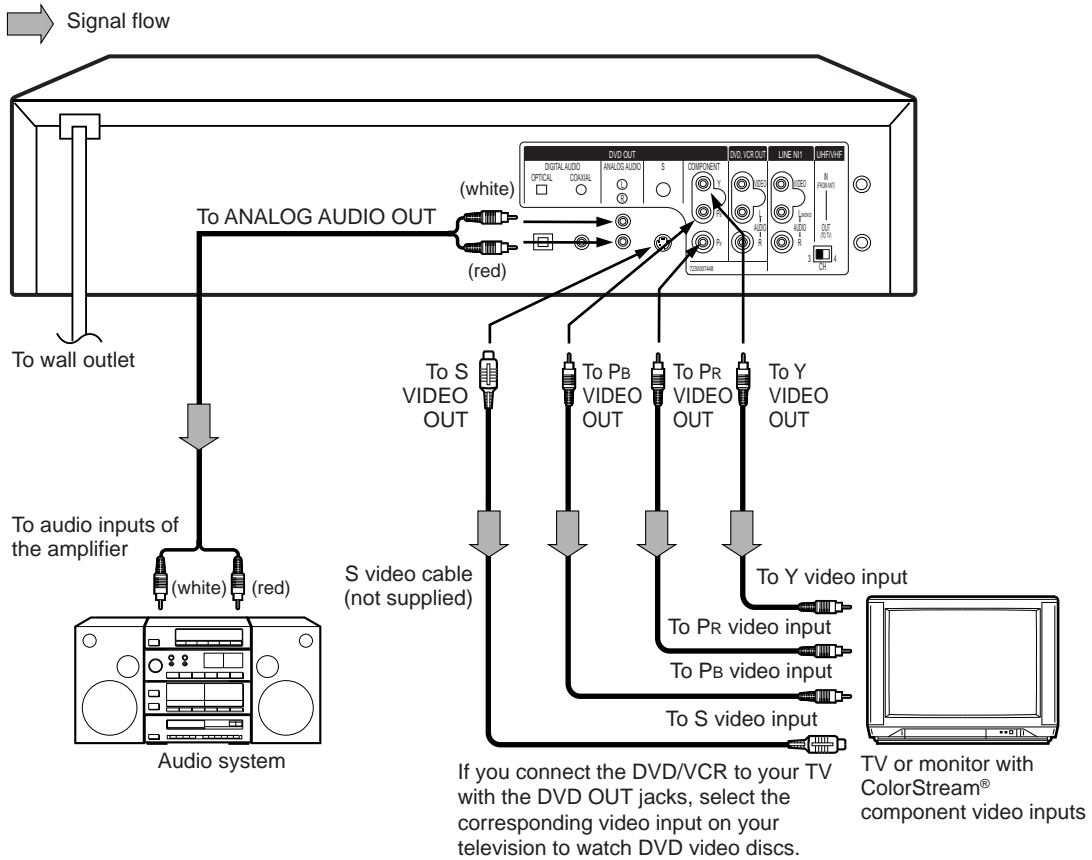
On-screen display	Select:	Page
"Audio Out Select"	"Analog 2ch"	56 58

Notes:

- Refer to the owner's manual of the connected TV as well.
- When you connect the DVD/VCR to your TV, be sure to turn off the power and unplug both units from the wall outlet before making any connections.
- If your television set has one audio input, connect the left and right audio outputs of the DVD/VCR to a Y cable adapter (not supplied) and then connect to your TV.
- Connect the DVD/VCR directly to your TV. If you connect the DVD/VCR to a VCR, TV/VCR combination or video selector, the playback picture may be distorted as DVD video discs are copy protected.

Notes: VCR and DVD are output from the composite video output. The S-Video output and component video output transports the DVD-video signal exclusively and will deliver enhanced DVD video picture performance.

Connecting to an audio system and TV equipped with S video input/component video inputs



Component video (ColorStream®) outputs/inputs

Some TVs or monitors are equipped with component video inputs. Connecting to these inputs allows you to enjoy the highest quality DVD picture playback. Actual labels for component video inputs may vary depending on the TV manufacturer. (ex. Y, R-Y, B-Y or Y, Cb, Cr)
 In some TVs or monitors, the color levels of the playback picture may be reduced slightly or the tint may change. In such a case, adjust the TV or monitor for optimum performance.

- Make the following setting.

On-screen display	Select:	Page
"Audio Out Select"	"Analog 2ch"	56
		58






Notes:

- Refer to the owner's manual of the connected equipment as well.
- When you connect the DVD/VCR to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- If you place the DVD/VCR near a tuner or radio, the radio broadcast sound might be distorted. In this case, place the DVD/VCR away from the tuner and radio.
- The output sound of the DVD/VCR has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the DVD/VCR's power cord. If you leave the amplifier power on, the speakers may be damaged.
- An S-Video connection is superior to Video(Yellow) output. Use this method for DVD playback when the connected television has S-Video input, and does not have component video inputs.

Connecting to optional equipment

You can enjoy high quality dynamic sounds of DVD video discs or audio CDs by connecting the DVD/VCR to optional audio equipment.

For connection to your TV, see "Connecting to a TV" **18** **19**.
 For details of output sound, see **52**.

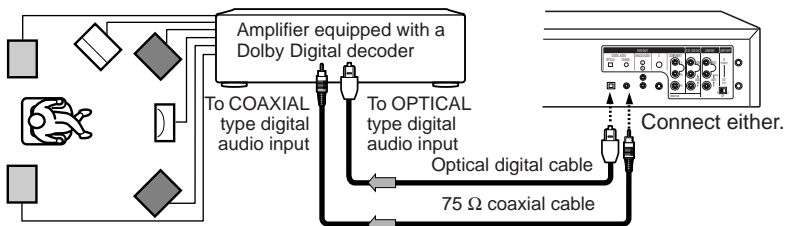
	: Front speaker		: Center speaker
	: Rear speaker		: Signal flow
	: Sub woofer		

Connecting to an amplifier equipped with a Dolby Digital decoder


Dolby Digital

Dolby Digital is the surround sound technology used in theaters showing the latest movies, and is now available to reproduce this realistic effect in the home. You can enjoy motion picture and live concert DVD video discs with this dynamic realistic sound by connecting the DVD/VCR to a 6 channel amplifier equipped with a Dolby Digital decoder or Dolby Digital processor. If you have a Dolby Pro Logic Surround decoder, you will obtain the full benefit of Pro Logic from the same DVD movies that provide full 5.1-channel Dolby Digital soundtracks, as well as from titles with the Dolby Surround mark.

Manufactured under license from Dolby Laboratories. "Dolby" "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. ©1992-1997 Dolby Laboratories. All rights reserved.



- Use DVD video discs encoded via the Dolby Digital recording system.
- Make the following setting.

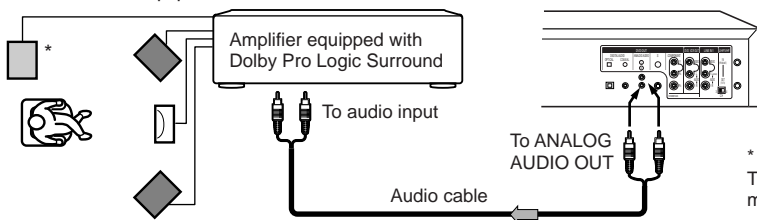
On-screen display	Select:	Page
"Audio Out Select"	"Bitstream"	56
		58
Recording system		52

Connecting to an amplifier equipped with Dolby Pro Logic Surround

Dolby Pro Logic Surround

You can enjoy the dynamic realistic sound of Dolby Pro Logic Surround by connecting an amplifier and speaker system (right and left front speakers, a center speaker, and one or two rear speakers).

- With an amplifier equipped with Dolby Digital
 Connect the equipment the same way as described in "Connecting to an amplifier equipped with a Dolby Digital decoder." Refer to that amplifier's owner's manual and set the amplifier so you can enjoy Dolby Pro Logic Surround sound.
- With an amplifier not equipped with Dolby Digital
 Connect the equipment as follows.



- Make the following setting.

On-screen display	Select:	Page
"Audio Out Select"	"Analog 2ch"	56
		58

Be sure to set "Audio Out Select" to "Analog 2ch" when you enjoy sounds of Dolby Pro Logic Surround using this connection.

* Connect one or two rear speakers.
 The output sound from the rear speakers will be monaural even if you connect two rear speakers.

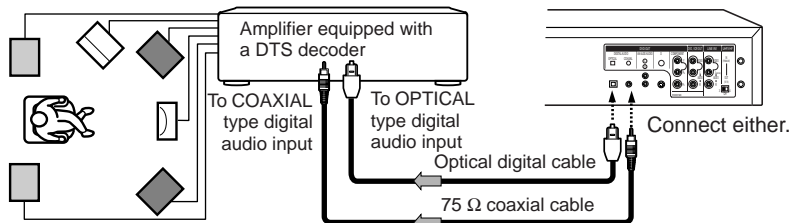
Connecting to an amplifier equipped with a DTS decoder

Digital Theater Systems (DTS)

DTS is a high quality surround technology used in theaters and now available for home use, on DVD video discs or audio CDs.

If you have a DTS decoder or processor, you can obtain the full benefit of 5.1 channel DTS encoded sound tracks on DVD video discs or audio CDs.

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



- Use DVD video discs or audio CDs encoded via the DTS recording system.
- Make the following setting.

On-screen display	Select:	Page
"Audio Out Select"	"Bitstream"	56
		58
Recording system	DTS	52

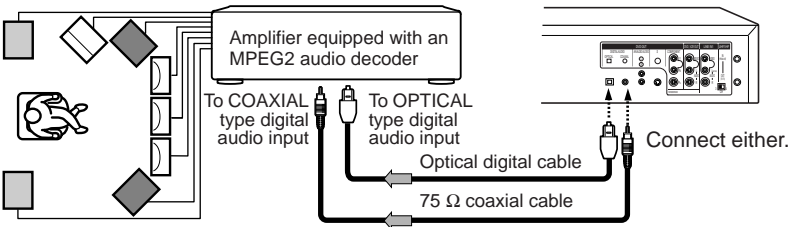
Warning

- When you are connecting (via the BITSTREAM/PCM AUDIO OUT jack) an AV decoder that does not have Dolby Digital, Digital Theater Systems (DTS) or MPEG2 decoding function, be sure to set "Audio Out Select" to "PCM" from the on-screen displays **56** **58**. Otherwise, high volume sound may damage your hearing as well as the speakers.
- When playing DTS-encoded discs (DVD/VCR), excessive noise may be output from the analog stereo jacks. To avoid possible damage to the audio system, you should take proper precautions when the ANALOG AUDIO OUT (L/R) jacks of the DVD/VCR are connected to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1 channel DTS Digital Surround™ decoder system must be connected to the BITSTREAM/PCM AUDIO OUT jack of the DVD/VCR.

Connecting to an amplifier equipped with an MPEG2 audio decoder

MPEG2 sound

You can enjoy motion picture and live concert DVD video discs with dynamic realistic sound by connecting an amplifier equipped with an MPEG2 audio decoder or MPEG2 audio processor.



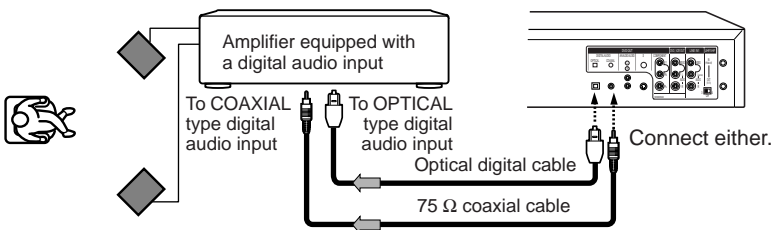
- Use DVD video discs encoded via the MPEG2 recording system.
- Make the following setting.

On-screen display	Select:	Page
"Audio Out Select"	"Bitstream"	56
	"PCM"	58
Recording system	MPEG	52

Connecting to an amplifier equipped with a digital audio input

2 channel digital stereo

You can enjoy the dynamic sound of 2 channel digital stereo by connecting an amplifier equipped with a digital audio input and speaker system (right and left front speakers).



- Make the following setting.

On-screen display	Select:	Page
"Audio Out Select"	"PCM"	56
	"Bitstream"	58

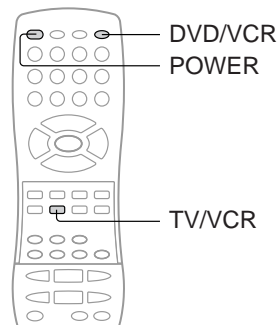
Notes:

- DO NOT connect the BITSTREAM/PCM AUDIO OUT jack of the DVD/VCR to the AC-3 RF input of a Dolby Digital Receiver. This input on your A/V Receiver is reserved for Laserdisc use only and is incompatible with the BITSTREAM/PCM AUDIO OUT jack of the DVD/VCR.
- Connect the BITSTREAM/PCM AUDIO OUT jack of the DVD/VCR to the "OPTICAL" or "COAXIAL" input of a Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- When you connect the DVD/VCR to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- The output sound of the DVD/VCR has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the DVD/VCR's power cord. If you leave the amplifier power on, the speakers may be damaged.

Setting the video channel

When a TV is connected with the 75 ohm coaxial cable only.

To view playback of a recorded tape or DVD disc, or to watch a program selected by the VCR's channel selector, the TV must be set to channel 3 or 4 (video channel).



Setting the video channel

1 Press **POWER** to turn on the DVD/VCR.



2 Press **DVD/VCR** to select the VCR mode.

DVD/VCR



The VCR indicator on the front panel will light.

3 Set the 3/4 Channel selector switch on the rear panel to CH 3 or 4.



4 Turn **ON** the TV and set to **CH 3** or **4** to correspond with the channel selected in step 3.

5 Press **TV/VCR** to select the VCR position.

TV/VCR



The VCR indicator will appear in the display window.

6 Select any channel to receive a TV station in your area. The channel number will appear on the screen for about 4 seconds.

■ For a push-button TV tuner

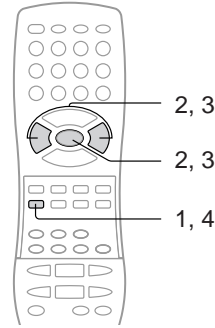
If CH 3 or 4 corresponding to the video channel cannot be tuned on your TV, proceed as follows: set the VCR 3/4 channel selector and the TV to CH 3 or 4, playback a prerecorded tape and tune the TV to receive a sharp color picture from the video cassette recorder. Refer to your TV owner's manual for details.

Notes:

- If the unit does not operate properly, or No key operation (by the unit and/or the remote control): Static electricity, etc., may affect the player's operation. Disconnect the AC power cord once, then connect it again.
- When you turn on the DVD/VCR which has disc inside, DVD playback will start automatically. If the operating mode was VCR, when you turned on the DVD/VCR which has disc inside, it will play back automatically and stop after about 5 minutes.
- During the DVD playback if you change the operating mode from DVD to VCR, the DVD will continue to play back the disc and stop after about 5 minutes.

Setting the language

You can choose from three different languages (English, French and Spanish) for the on-screen displays.



Setting the language

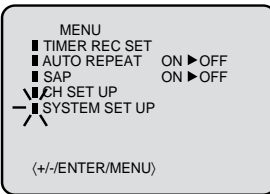
Preparation:

- Turn ON the TV and select to the corresponding video input.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)

1 Press VCR MENU.



If you use the unit for the first time and press **VCR MENU**, instead of the main menu screen on the right the "SYSTEM SET UP" menu screen in step 2 may appear.



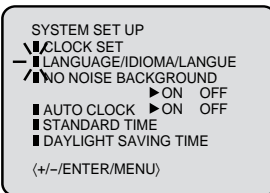
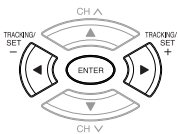
4 Press VCR MENU until the MENU screen is cleared.



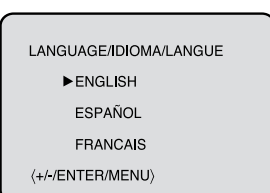
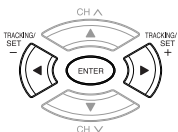
Notes:

- Both the VCR and the DVD have their own player menus **56**.
- If no buttons are pressed for more than 60 seconds, the VCR MENU screen will return to normal TV-operation automatically.

2 Press SET + or - to select "LANGUAGE", then press ENTER.

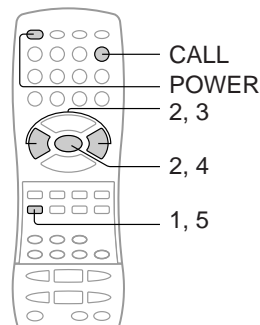


3 Press SET + or - to select the desired language: English (ENGLISH), Spanish (ESPAÑOL) or French (FRANCAIS), then press ENTER.



Clock setting

The Auto Clock function will automatically set the built-in clock (Month, Day, Year and Time) when the DVD/VCR is connected to an Antenna or Cable system and it is turned off. The DVD/VCR searches for a station in your area containing the necessary Auto clock setting signals. Once received, it will take approximately 4 minutes for the clock to set itself automatically.



Auto clock setting

Preparation:

- Turn ON the TV and select the corresponding video input.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)

1 Connect the Antenna or Cable system.
• If you use a cable box, turn it on.

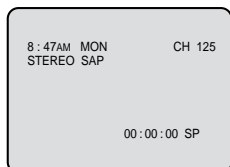
2 Plug the AC Power cord to the AC outlet.

3 Make sure the DVD/VCR is turned off.
• If you press **POWER**, the Auto Clock set is not programmed.

4 Wait at least three minutes and press **POWER**.

5 Press **CALL** to check the clock setting on the on screen display.

DISPLAY/CALL



6 If the clock is not set, check the antenna condition. The auto clock may not function properly if the reception condition is not good.

Auto clock adjustment

The auto clock adjustment will be updated at 12:00 PM everyday if you turn off the DVD/VCR.

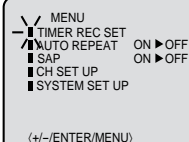
- If you use a cable box and you want auto clock adjustment to be performed, the cable box must be left on.
- The auto clock adjustment is not effective when there is a difference of more than 5 minutes exists between the built-in clock time and the actual time.

To set auto clock to off

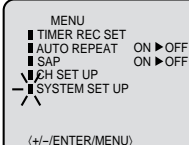
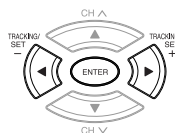
When shipped from factory the AUTO CLOCK is set to "ON". But if you do not want auto clock set (Adjustment):

1 Press **VCR MENU**.

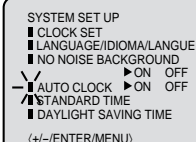
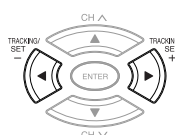
SET UP
VCR MENU



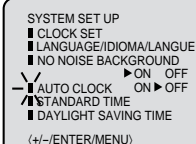
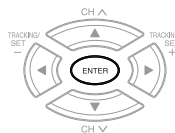
2 Press **SET +** or **-** to select "SYSTEM SET UP", then press **ENTER**.



3 Press **SET +** or **-** to select "AUTO CLOCK".



4 Press **ENTER** to select "OFF".



5 Press **VCR MENU** repeatedly to return to the normal screen.

SET UP
VCR MENU



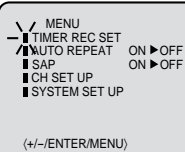
- When the AUTO CLOCK is set to "OFF", the Auto Clock adjustment does not function.
- Set the clock manually **[26]**.

To set standard time

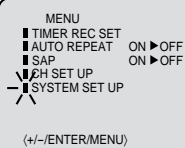
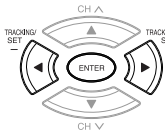
In the rare event that you live within broadcast range of two stations in two different time zones, the DVD/VCR may recognize the wrong station for the Auto Clock set. To correct the situation:

1 Press VCR MENU.

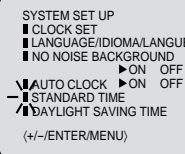
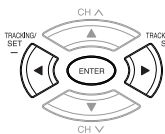
SET UP
VCR MENU



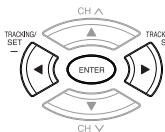
2 Press SET + or - to select "SYSTEM SET UP", then press ENTER.



3 Press SET + or - to select "STANDARD TIME", then Press ENTER.



4 Press SET + or - to select your time zone, then press ENTER.



ATLANTIC : GMT-4hours
 EASTERN : GMT-5hours
 CENTRAL : GMT-6hours
 MOUNTAIN : GMT-7hours
 PACIFIC : GMT-8hours
 ALASKA : GMT-9hours
 HAWAII : GMT-10hours
 AUTO : AUTO SET
 (GMT: Greenwich Mean Time)

5 Press VCR MENU twice to return to the normal screen.

SET UP
VCR MENU



Notes:

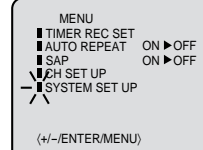
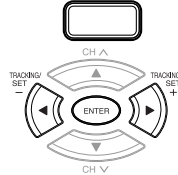
- To be able to select the standard time, the clock must first be set by "AUTO CLOCK" once.
- If you live in Newfoundland and the Auto Clock does not function properly, set the AUTO CLOCK menu option to OFF and set the clock manually.

To set daylight saving time

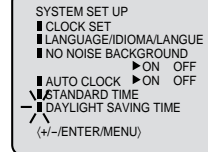
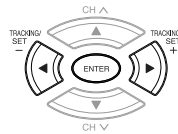
You can set the Daylight Saving Time automatically or manually.

1 Press VCR MENU. Press SET + or - to select "SYSTEM SET UP", then press ENTER.

SET UP
VCR MENU

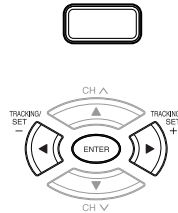


2 Press SET + or - to select "DAYLIGHT SAVING TIME", then press ENTER.



3 Press SET + or - to select one of the options, then press ENTER. Press VCR MENU until the MENU screen is cleared.

SET UP
VCR MENU



- ON:** for manual setting (forward one hour)
- OFF:** for manual setting (back one hour)
- AUTO:** for automatic setting (read XDS in the signal)

When you want to set the Daylight Saving Time manually, on the first Sunday in April you set to "ON", and on the last Sunday in October you set to "OFF".

DAYLIGHT SAVING TIME

- ▶ ON
 OFF
 AUTO

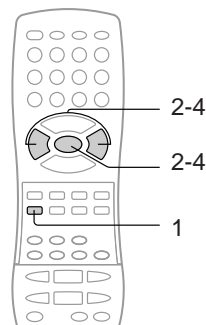
(+/-)/ENTER/MENU

Notes:

- When shipped from factory, the DAYLIGHT SAVING TIME is set to "AUTO" position.
- When the clock is not set, Daylight Saving Time setting is not available.
- When there is no Daylight Saving Time in your area, always select "OFF" position in step 3.

Clock setting (continued)

If the auto clock process did not set the date and time correctly, you must set them manually for timer recording and daylight saving time.



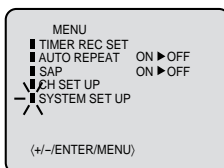
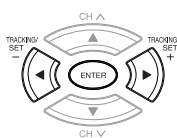
Manual clock setting

EXAMPLE: Setting the clock to "8:30 AM" March, 23 (SAT), 2002.

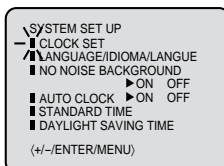
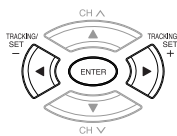
1 Press VCR MENU.



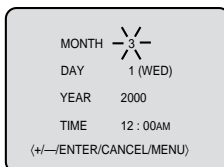
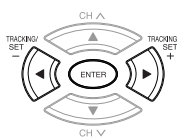
2 Press SET + or - to select "SYSTEM SET UP", press ENTER.



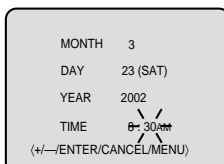
3 Press SET + or - to select "CLOCK SET", then press ENTER.



4 Press SET + or - to set the month, then press ENTER.



5 Set the day, year and time as in step 4.



6 After setting the clock, date and time starts functioning automatically.

8 : 30AM SAT

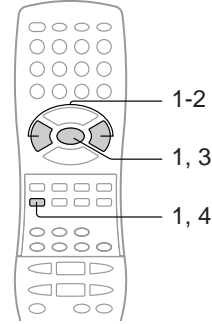
■ **To make corrections any time during the process**
Press **CANCEL** repeatedly until the item you want to change blinks, then press **SET +** or **-**.

Note:

After a power failure or disconnection of the power, the timer settings will be lost. In this case, reset the present time.

Tuner setting

This DVD/VCR is equipped with a channel memory feature which allows channels to skip up or down to the next channel set into memory, skipping over unwanted channels. Before selecting channels, they must be programmed into the DVD/VCR's memory. In addition to normal VHF and UHF channels, this DVD/VCR can receive up to 113 Cable TV channels. To use this DVD/VCR with an antenna, set the TV/CATV menu option to the TV mode. When shipped from the factory, this menu option is in the CATV mode.



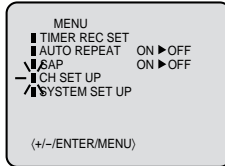
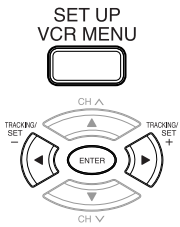
TV/CATV selection

Setting channels automatically

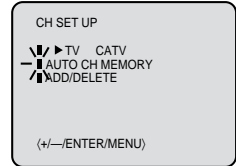
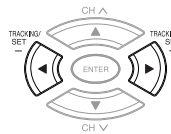
Preparation:

- Turn ON the TV and set to the video input mode.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)

- 1** Press **VCR MENU**. Press **SET +** or **SET -** to select **"CH SET UP"**, then press **ENTER**.

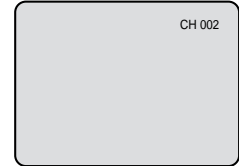
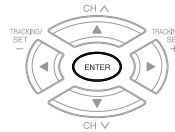


- 1** Repeat left step 1 and press **SET +** or **SET -** to select **"AUTO CH MEMORY"**.

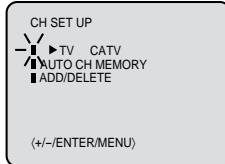
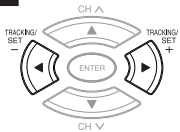


- 2** Press **ENTER**.

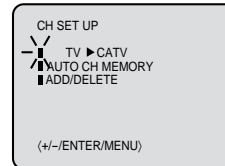
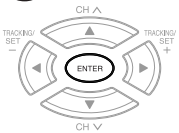
Auto tuning will begin. The channel display will count up and when finished, the screen returns to normal.



- 2** Press **SET +** or **SET -** to select **"TV/CATV"**.



- 3** Press **ENTER** to select the **TV** or **CATV** mode. The arrow indicates the selected mode.



TV - VHF/UHF channels
CATV - CABLE TV channels

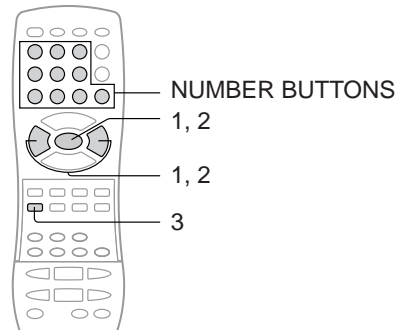
- 4** Press **VCR MENU** until the menu screen is cleared.



Note:

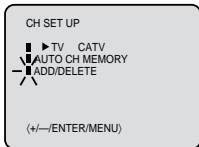
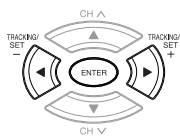
You can't select "CH SET UP" if you set the channel to "L1" or "L2".

Tuner setting (continued)



To ADD/DELETE channels

1 Repeat the step 1 on page 27. Then press **SET + or -** to select the “ADD/DELETE” and press **ENTER**.



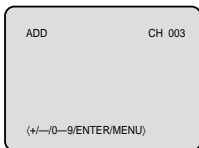
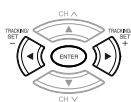
2 To Add or Delete desired channels

1 Press **Number buttons** or **SET + or -** to select a channel number you want to add or delete.

2 **To add channels**
Press **ENTER** until “ADD” appears on the screen.

To delete channels
Press **ENTER** until “DELETE” appears on the screen. The channel number will blink.

3 Repeat **1** to **2** to add or delete other channel.



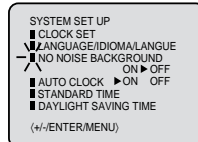
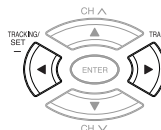
3 Press **VCR MENU** until the menu screen is cleared.



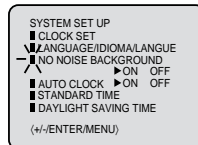
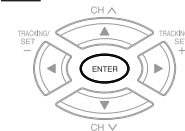
Noise elimination

When you don't want to receive a weak signal broadcast, a Blue back screen can be obtained by selecting the NO NOISE BACKGROUND "ON". When the unit is shipped from the factory, the NO NOISE BACKGROUND is set to "ON".

1 Repeat the steps 1~2 on page 26 and press **SET + or -** to select “NO NOISE BACKGROUND”.



2 Press **ENTER** to select “ON” position.

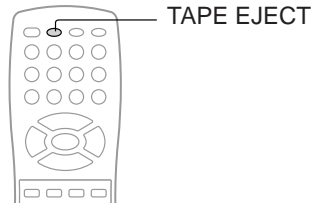


3 Press **VCR MENU** until the menu screen is cleared.



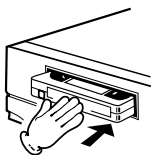
Loading and unloading a cassette tape

Use only video cassette tapes marked **VHS** and **SVHS**.

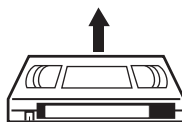


Loading

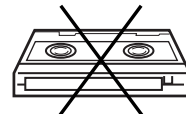
Push the center of the tape until it is automatically inserted.



Insert the cassette tape with its labeled side facing up and the erase prevention tab positioned at your left. An inverted cassette tape cannot be inserted.



Erase prevention tab



Automatic power ON

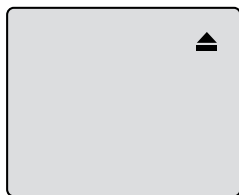
When you insert a cassette tape the DVD/VCR power will turn ON automatically.

Automatic playback

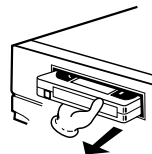
When loading a cassette tape without an erase prevention tab, playback will start automatically.

Unloading

1 Press **EJECT** on the front panel or **TAPE EJECT** on the Remote.



2 Remove the cassette tape.



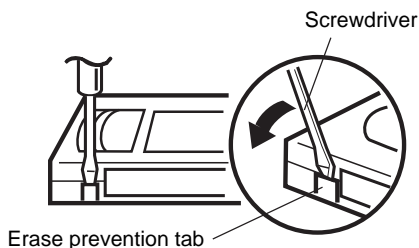
Automatic tape eject

This DVD/VCR will automatically rewind the tape when the tape has ended. Once the tape is rewound to its beginning, the cassette tape will be ejected automatically.

To prevent accidental erasure

To prevent accidental erasure

Remove the erase prevention tab with a screwdriver.



To record again

Cover the hole with a piece of adhesive tape.

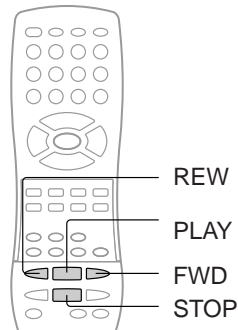


Tape speed and maximum recording time

Tape Speed	Video cassette tape				
	T-160	T-120	T-90	T-60	T-30
SP (Standard Play)	2-2/3 hours	2 hours	1-1/2 hours	1 hour	30 minutes
SLP (Super Long Play)	8 hours	6 hours	4-1/2 hours	3 hours	1-1/2 hours

Cassette tape playback

To play a prerecorded tape.



Playback

Preparation:

- Turn ON the TV and select the corresponding video input.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light).

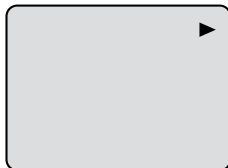
1 Load a prerecorded tape

(When loading a cassette tape without the erase prevention tab, playback will start automatically).



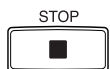
2 To start playback

Press **PLAY**.
Playback will start. "▶" will appear on the screen for about 4 seconds.



To stop playback

Press **STOP** once.
The tape will stop but remain fully loaded and ready to play.
"■" will appear on the screen for about 4 seconds.



Notes:

- This VCR selects the playback tape speed SP, LP or SLP automatically.
- The Cassette tape and DVD disc can be played back simultaneously. If you press **DVD/VCR**, the tape playback and DVD playback alternate with each other on the screen (via CH3, 4 or video connection).
- When you select the VCR mode during DVD playback, DVD playback will stop automatically after approx. 5 minutes.

Rewind or forward the tape

Stop the playback or recording via **STOP** on remote.

To rewind the tape:

Press **REW**.



To forward the tape:

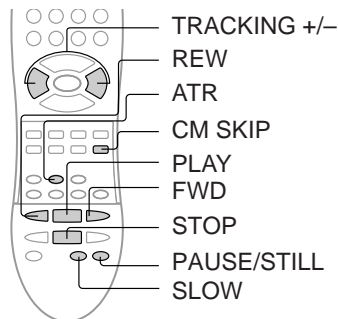
Press **FWD**.



To discontinue the tape-winding, press **STOP**. To switch to playback directly (without **STOP**), press **PLAY**.

■ Forward/Reverse picture search mode

When the tape is being winded, you can switch to picture search mode (see next page). To do this, press **REW** or **FWD** and hold it down. The unit will resume the tape advance or rewinding as soon as the button is released.



Picture search

Reverse picture search function

Press **REW** once or twice during playback.

Forward picture search function

Press **FWD** once or twice during playback.

To return to playback, press **PLAY**.

SPEED SEARCH TIMES

TAPE SPEED	PICTURE SEARCH SPEED	
	PRESS ONCE	PRESS TWICE
SP (Standard Play)	3 X	5 X
LP (Long Play)	7 X	9 X
SLP (Super Long Play)	9 X	15 X

Still picture

Press **PAUSE** during playback.

To resume normal playback, press **PLAY** or **PAUSE/STILL**.

Slow motion

During playback press **SLOW**.

To return to playback, press **PLAY** or **SLOW**.

Slow tracking and vertical lock adjustment

If noise bars appear in the picture during slow motion, press the **TRACKING + / -** to reduce the noise bars.

If the still picture jitters excessively, press **TRACKING + / -** to stabilize the still picture.

Frame by frame picture

Press **PAUSE/STILL** during playback.

Press **SLOW** repeatedly: The picture advances frame by frame.

To return to playback, press **PLAY** or **PAUSE/STILL**.

CM skip

Press **CM SKIP** during playback. The DVD/VCR will search forward through approximately 30 seconds of the tape (e.g. unwanted commercial time) for each press of **CM SKIP** (maximum six presses) and then resume normal playback.

For example : 1 press: 30 seconds of tape
 2 press: 60 seconds of tape
 3 press: 90 seconds of tape

Adjusting tracking condition

Automatic tracking adjustment

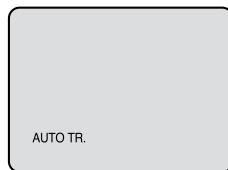
Whenever you insert a tape and start playback, the automatic tracking feature continuously analyzes the signal to enable optimum picture quality during playback.

Manual tracking adjustment

If automatic tracking cannot eliminate noises well during playback, press **TRACKING +/-** to eliminate the noise. "MANUAL TR." will appear on the screen. Press it briefly for a fine adjustment, or press and hold for a coarse adjustment.

Press **ATR** to reactivate automatic tracking again.

"AUTO TR." will appear on the screen.



Notes:

- The audio output is muted during SPEED SEARCH, STILL, FRAME ADVANCE and SLOW MOTION.
- During picture search mode there will be noise bars. This is not a defect.
- Playback will commence after approx. 5 minutes to protect the video tape against excessive wear during pause mode.

Video head cleaning

Video head clogging

The video heads are the means by which the DVD/VCR reads the picture from the tape during playback. In the unlikely event that the heads become dirty enough to be clogged, no picture will be displayed. This can easily be determined if, during playback of a known good tape, there is good sound, but no picture (picture is extremely snowy). If this is the case, have the DVD/VCR checked and cleaned by qualified service personnel.



Good Picture

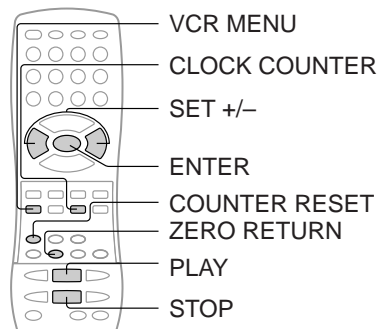


Snowy Picture

Notes:

- DO NOT ATTEMPT TO CLEAN THE VIDEO HEADS OR SERVICE THE UNIT BY REMOVING THE REAR COVER.
- Video heads may eventually wear out and should be replaced when they fail to produce clear pictures.
- To help prevent video head clogging, use only good quality VHS tapes. Discard worn out tapes.

Convenience function

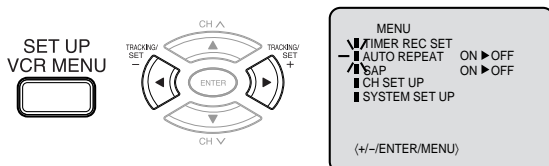


Repeat playback

The entire video tape will play until its end. The tape will automatically rewind to the beginning and the playback will be repeated.

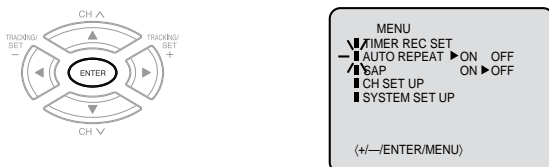
1 Press VCR MENU.

Press SET + or - to select "AUTO REPEAT".



2 Press ENTER to select "ON" or "OFF".

If "ON" is selected, the playback will be repeated endlessly.



3 Press VCR MENU until the menu screen is cleared.

If you press CALL, "CALL" will appear on the screen [11].



4 To commence playback, press PLAY.

The playback will be repeated endlessly.



To cancel repeat mode:

Follow the above step 1, then press **ENTER** to select "OFF" position. Press **VCR MENU** to return to the TV.

Zero return function

This function rewinds the tape to the 00:00:00 counter position automatically.

1 Press CLOCK/COUNTER.

The counter display shows the tape running time during playback or recording.



2 Press COUNTER RESET at the desired tape position.

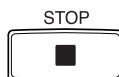
The counter display will be reset to "00:00:00" position (e.g. the beginning of recording).

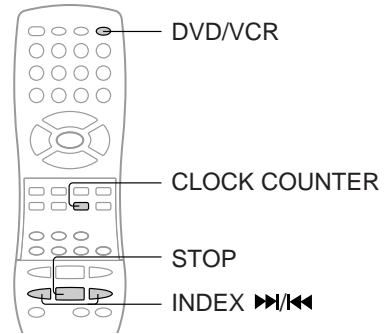


3 Press STOP when playback or recording is completed.

Press ZERO RETURN.

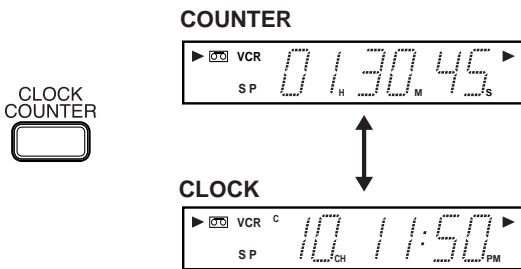
The tape will automatically rewind or fast forward to the "00:00:00" counter position.



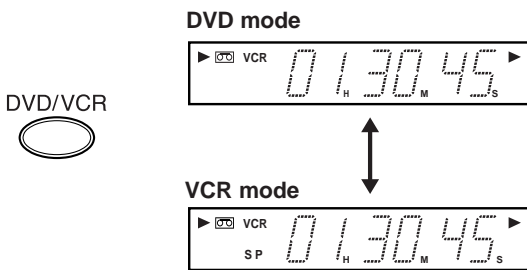


Clock/counter display

Press **CLOCK/COUNTER**. The clock and tape counter alternate with each other in the display window.



Press **DVD/VCR**. The DVD mode and the VCR mode alternate with each other in the display.



Notes:

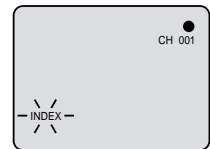
- If you rewind the tape beyond "00:00:00", a minus sign ("-") will be displayed in front of the time.
- When you load a tape, the counter will reset to "00:00:00".
- The counter does not function on nonrecorded (blank) sections of the tape. When you rewind, fast forward or play tapes through blank sections, the counter stops.

Video index search system

This function enables you to locate the beginning of any recording made on the VCR.

Recording an INDEX MARK

The Index Search function automatically records an INDEX mark on the tape whenever a recording is initiated.



Index search

Press **INDEX >>>** or **<<<** during stop or play mode.

For Succeeding programs: Press **INDEX >>>**.

For Preceding programs: Press **INDEX <<<**.

(As many as 9 index points can be accessed via this method.)

When the **INDEX >>>** or **<<<** is pressed, the unit starts searching the INDEX NO. selected and finds the portion, then playback starts automatically. To stop the Index Search, press **STOP**.



— INDEX/SKIP STOP SKIP/INDEX + >>> or <<< is displayed
INDEX NO. (up to 9)

Notes:

- When you record an INDEX mark at the very beginning of the tape, the mark may not be found.
- During INDEX search, the tape may stop and begin to play at a slightly different location.
- INDEX may not function properly with old or worn out video tapes.
- INDEX marks may not be found if it is extremely close to the point where the search began.
- In recording, if you stop recording temporarily, the INDEX mark is not recorded on the tape.

SQPB (S-VHS Quasi Playback)

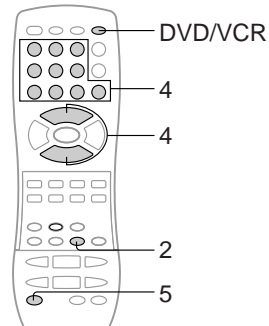
You can playback video cassette tapes recorded in the S-VHS system.

However, the picture will not have the high resolution of S-VHS system.

Note: You cannot record S-VHS video format with this VCR.

Recording a TV program

Recording and viewing the same TV program



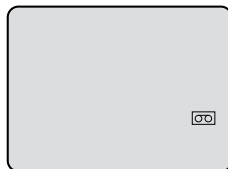
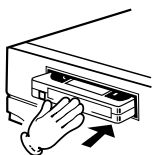
Recording a TV program

Preparation:

- Turn ON the TV and set to the video input mode.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)

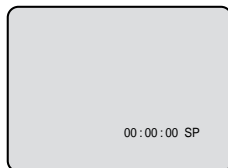
1 Load a cassette tape with the erase prevention tab intact.

The DVD/VCR will automatically turn on.



2 Press SP/SLP to select the desired tape speed SP or SLP.

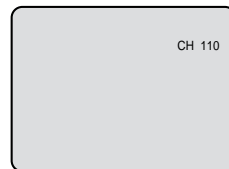
The tape counter and SP or SLP will appear on the screen for about 4 seconds.



3 Select "TV" or "CATV" to the appropriate position **27**.

TV - VHF/UHF channels
CATV - CABLE TV channels

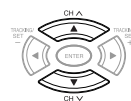
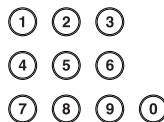
4 Press Number button or CH ^/v to select the channel to be recorded.



- 1-9 Press **0** twice and then **1-9** as required.
Example: To select 2, Press "**002**".
- 10-12 Press **0** first and then the remaining 2 digits in order from left to right.
Example: Press **012** for "12".
- 13-99 Press 2 digits in order.
Example: Press **22** for "22".
- 100-125 Press the 3 digits in order.
Example: Press **110** for "110".

VHF/UHF/CATV CHANNELS

TV	CATV
VHF 2-13	VHF 2-13
UHF 14-69	STD/HRC/IRC 14-36 (A) (W) 37-59 (AA) (WW) 60-85 (AAA) (ZZZ) 86-94 (86) (94) 95-99 (A-5) (A-1) 100-125 (100)(125) 01 (5A)

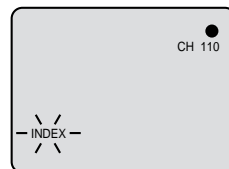


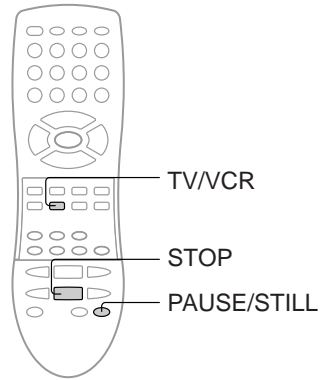
5 Press REC.

"●" will appear on the screen for about 4 seconds and "●" will appear on the display window.



OTR

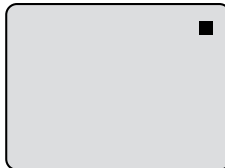
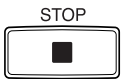




To stop recording

Press **STOP** to stop recording.

"■" will appear on screen for about 4 seconds.



■ Auto Rewind feature

This VCR will automatically rewind the tape when the tape has ended (except during OTR and timer recording). It will also eject the tape.

To stop recording temporarily

Press **PAUSE/STILL** to avoid recording unwanted material. Press again to continue the recording.

"●||" will appear on screen for about 4 seconds.



Notes:

- The pause function will be released after 5 minutes to prevent damage to the tape or the VCR. The VCR will change to the STOP mode.
- You can select a recording channel in the recording pause mode.

Recording one program while watching another

While the VCR is recording, select your desired channel on the TV.

When a TV is connected with an antenna cable only, press TV/VCR to select the TV position.

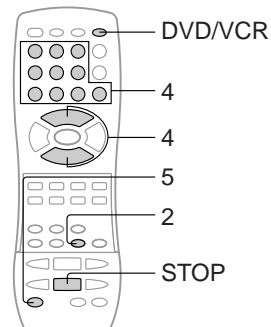
The "VCR" display will go off and recording will continue. Select the TV channel you want to watch by using the TV channel selector.

Note:

Some CATV hookups do not permit viewing one channel while recording another. See pages **16** and **17**.

One-touch Timer Recording (OTR)

The One-touch Timer Recording feature provides a simple and convenient way to make a timed recording.



One-touch Timer Recording (OTR)

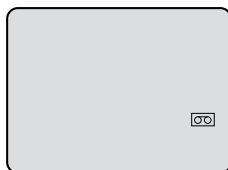
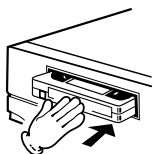
Preparation:

- Turn ON the TV and select the corresponding video input.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)

Example: One-touch Timer Recording for 30 minutes.

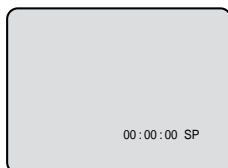
1 Load a cassette tape with the erase prevention tab intact.

The VCR will automatically turn on.



2 Press SP/SLP to select the desired tape speed SP or SLP.

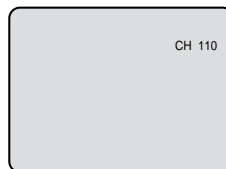
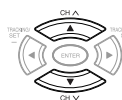
The tape counter and SP or SLP will appear on the screen for about 4 seconds.



3 Set "TV" or "CATV" option to the appropriate position **27**.

TV - VHF/UHF channels
CATV - CABLE TV channels

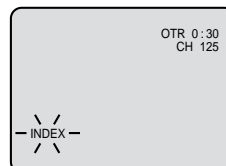
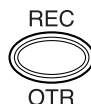
4 Press Number button or CH ^/V to select the channel to be recorded.



5 Press OTR. Recording begins. Press the button again to stop recording after 30 minutes. Each additional press of OTR will increase recording time as shown in the chart below, up to a maximum of 5 hours.

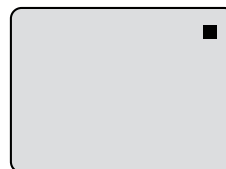
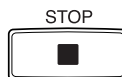
The OTR and recording time will appear on the screen for about 4 seconds. And, "●" will keep blinking in the display.

Press	Recording time	Press	Recording time
once	NORMAL REC	6 times	3:00
twice	0:30	7 times	4:00
3 times	1:00	8 times	5:00
4 times	1:30	9 times	NORMAL REC
5 times	2:00		



To cancel OTR

Press **STOP** or turn off the power.



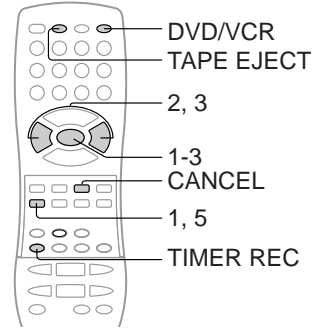
"■" will appear on screen for about 4 seconds.

Note:

If you wish to watch the DVD playback during OTR or standard recording, press **DVD/VCR** to change to DVD mode and perform the DVD playback **43**.

Timer recording

Timer recording can be programmed on-screen with the remote control. The built-in timer allows automatic unattended recording of up to 8 programs within 1 month.



Timer recording

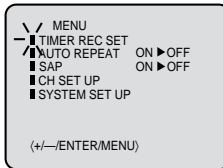
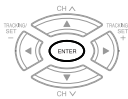
Preparation:

- Press **DVD/VCR** to select the VCR mode.
- Load a cassette tape with the erase prevention tab intact.
- Check the time and date are correct **[24]**.

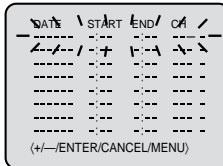
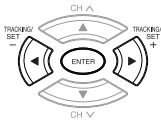
Example: Program a timer recording for the 26th day, channel 125 (CATV), 11:00 - 11:30 PM on timer program number 1 (Tape speed: SLP).

1 Press **VCR MENU**. Select "TIMER REC SET", then press **ENTER**.

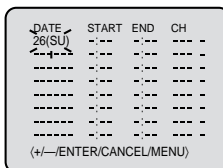
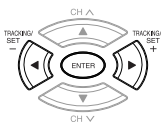
SET UP
VCR MENU



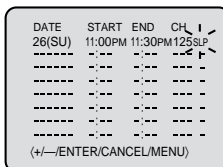
2 Press **SET + or -** to select one of the program line, then press **ENTER**.



3 Press **SET + or -** to select the date, then press **ENTER**.



4 Set the start time, end time, channel and tape speed as in step 3.



Notes:

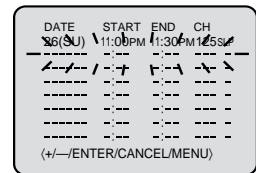
- Press **CANCEL** to move cursor backward for correction.
- To record from external source set the channel to "L1" or "L2". "L1" or "L2" will appear next to CH 125 (or 69).

5 To enter other programs, repeat step 2 through 4.

SET UP
VCR MENU



- To return to the normal screen, press **VCR MENU** twice.



6 Press **TIMER REC**. The timer symbol (⏸) will appear on the display and the VCR stands by for recording.

TIMER REC



At the same time, VCR mode will change to DVD mode automatically. You can use DVD even if the VCR is in the Timer recording mode. If you do not use the DVD, turn the power off.

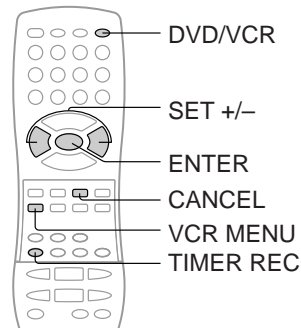
Notes:

- The timer recording will start at 5 seconds before the time you predetermined.
- If the timer symbol (⏸) does not appear on the display in spite of the pressing of **TIMER REC**, the cassette may not have been loaded. **[29]**
- If the cassette is ejected in spite of the pressing of **TIMER REC**, the erase prevention tab of the cassette may have been removed. **[29]**

Notes:

- If the timer symbol (⏸) blinks when the timer recording ended, the TV program has not been completely recorded because of an insufficient tape length. Press **TIMER REC** to cancel the timer program or press **TAPE EJECT** to remove the cassette tape.
- During timer recording standby mode, the VCR mode cannot be operated. To use the VCR, press **TIMER REC** at first, then press **DVD/VCR** to change to VCR mode. After you use the VCR, press **TIMER REC** again to put the VCR into timer recording standby mode.
- If you press **TIMER REC** during timer recording, the recording operation will be interrupted. If you press **TIMER REC** again within the programmed time, the recording operation will start again.
- After a power failure or disconnection of the power plug, all programmed recording settings and time display will be lost upon resumption of power. In this case, reset the clock **[24]** and reprogram any timer recording.

Timer recording (continued)



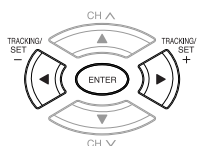
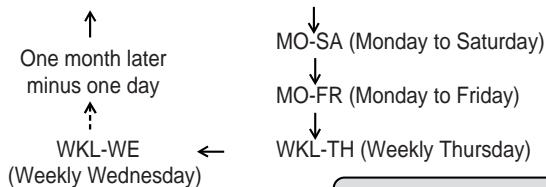
To set daily/weekly timer

Weekly (e.g. WKL-TU: each Tuesday) or daily (e.g. MO-SA: Monday to Saturday) Timer recording

Follow the procedure of timer recording on the previous page. At picture 3 press **SET +** or **-** repeatedly until the desired setting appears. Then press **ENTER**.

When you press **SET -** repeatedly, the DATE indicator will change as follows, in this case the day is Friday.

The current day (Friday) → SU-SA (Sunday to Saturday)



DATE	START	END	CH
WKL-WE	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
(<+/->/ENTER/CANCEL/MENU)			

To confirm or cancel a program

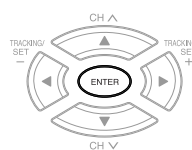
1 If the Timer has been activated, press **TIMER REC** to deactivate the Timer.

The timer symbol (⏰) will disappear. Then press **DVD/VCR** to change to VCR mode.



2 To confirm Timer program:

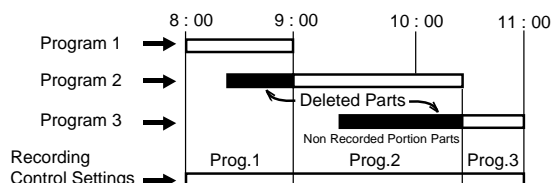
At picture 1 on the previous page select "TIMER REC SET" and press **ENTER**. The timer program list will appear on the screen.



DATE	START	END	CH
26(SU)	11:00PM	11:30PM	125SLP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
(<+/->/ENTER/CANCEL/MENU)			

If the programs overlap another

Do not overlap timer programs as portions of the conflicting programs will be lost. The first recording time has priority over the next recording time as shown in the diagram below.

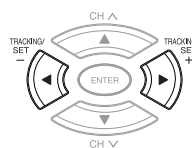


Notes:

- The daily/weekly recording can be made continuously until the recording is canceled or the tape reaches the end.
- During timer recording the automatic rewinding mechanism does not function.

3 To cancel Timer program:

Press **SET +** or **-** to select the unwanted program, then press **CANCEL** to cancel the program.



DATE	START	END	CH
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
(<+/->/ENTER/CANCEL/MENU)			

4 Press **VCR MENU** repeatedly until the menu screen is cleared.

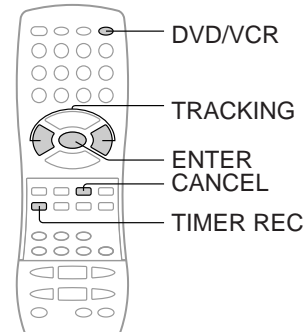
SET UP
VCR MENU



Notes:

- If there are other timer record programs remaining, **TIMER REC** must be pressed to reactivate the timer, otherwise the remaining timer record programs will be ignored.
- You cannot confirm the Timer program during timer recording operation.
- You can correct or cancel a programmed setting in program confirm mode.

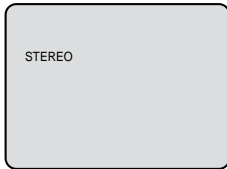
Stereo recording and playback / Separate Audio Program (SAP)



Stereo recording and playback

The VHS Hi-Fi audio system permits high fidelity recording of MTS STEREO TV broadcasts.

When a MTS STEREO broadcast is received, "STEREO" will appear on the screen and the program can be viewed or recorded in stereo.



The Hi-Fi stereo recording procedure is the same as for normal recordings.

Note:

When using a CATV system, stereo TV programs may be transmitted over a mono cable channel. In this case "STEREO" will not appear and the sound will be in mono.



Output selection

When viewing an MTS stereo TV program, or playing a prerecorded VHS Hi-Fi stereo videotape, press **AUDIO SELECT** to select how the audio will be heard through the speakers. Normally set to the Hi-Fi stereo position, this button can be set to the MONO position if the stereo broadcast or videotape audio is of poor quality. The "R" and "L" positions allow the audio from the Right or Left Hi-Fi channel to be heard over both TV speakers. This button has no effect when viewing a MONO videotape or TV program. Each time when you press the button, **OUTPUT SELECTION** display appears on the screen for several seconds. Refer to the chart below.

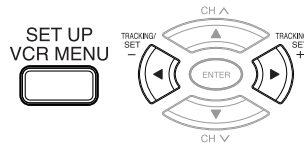
OUTPUT SELECTION	SOUND HEARD ON BOTH SPEAKERS
STEREO	STEREO
L CH	LEFT CHANNEL AUDIO
R CH	RIGHT CHANNEL AUDIO
MONO	MONO

Separate Audio Program (SAP)

Your DVD/VCR is fitted with a SAP broadcast system which enables you to switch to a separate audio program when viewing a selected channel.

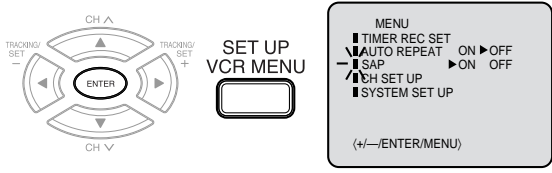
This function applies only when the program is broadcast in multi-languages through the SAP broadcast system.

1 Press VCR MENU. Then press SET + or - to select "SAP".



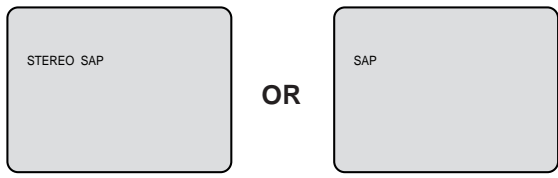
2 Press ENTER to select "ON".

Then press **VCR MENU** until the menu screen is cleared.



Listening to SAP

When the VCR is turned on or a channel selection is made, make certain the letters "SAP" appears on the screen. This means that the "Separate Audio Program" broadcasting is available.



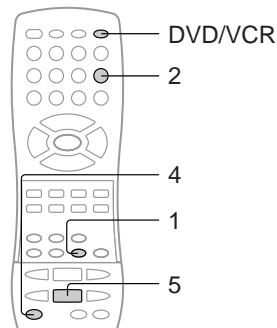
Notes:

- When playing back a tape that is not recorded in Hi-Fi stereo mode, the audio will automatically be monaural.
- When listening to a VHS Hi-Fi video tape or MTS broadcast through the VHF/UHF jack (Audio/Video cord not connected), the sound will be monaural.

Other functions (VCR)

Duplicating a video tape

If you connect the DVD/VCR to another VCR or Camcorder, you can duplicate a previously recorded tape. Make all connections before turning on the power.



Duplicating a video tape

Preparation:

- Turn ON the TV and select the corresponding video input.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)
- Load a cassette tape with the erase prevention tab intact.
- Load a previously recorded tape into the playback VCR or Camcorder.

1 Press SP/SLP to select the desired tape speed SP or SLP.



It is recommended that you set the Speed to the SP mode on the recording VCR for best results.

2 Press INPUT SELECT once or twice to select AUDIO/VIDEO input position.

"L1" or "L2" will appear in the display.

INPUT SELECT

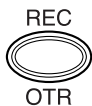


L1: on the rear panel
L2: on the front panel

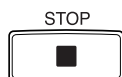
3 Press PLAY on the playback VCR or Camcorder.

4 Press REC on the recording VCR.

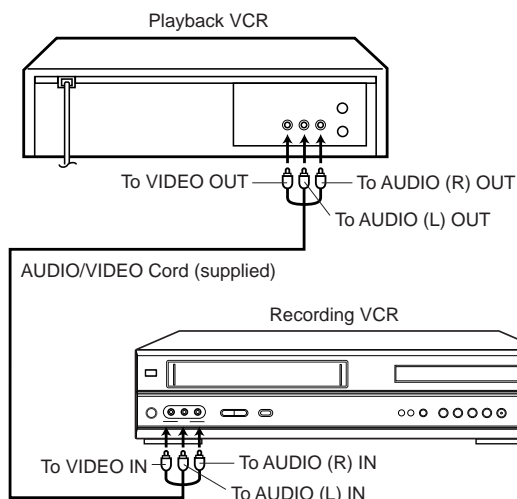
The duplicating process begins.



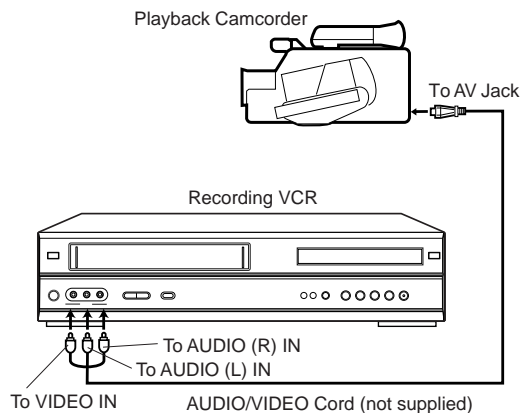
5 Press STOP after duplicating a video tape.



Connection with second video recorder



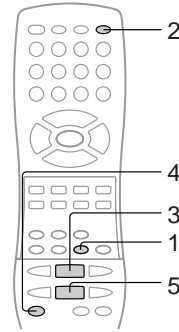
Connection with Camcorder



For duplicating a previously recorded tape from a camcorder, follow the camcorder manufacturer's instructions. A typical camcorder dubbing hookup is shown above.

Recording a DVD/CD disc

You can record disc material in DVD, Audio CD, etc. onto a Video tape with this DVD/VCR.



Duplicating a DVD or CD disc

Preparation:

- Turn ON the TV and select the corresponding video input.
- Press **DVD/VCR** to select the VCR mode. (The VCR indicator will light.)
- Load a cassette tape with the erase prevention tab intact.
- Load a DVD/CD disc.

1 Press SP/SLP to select the desired tape speed SP or SLP.



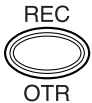
2 Press DVD/VCR to select the DVD mode. The DVD indicator will light.



3 Press PLAY to start playback.

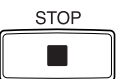


4 Press REC to start recording.



The DVD/VCR will change to the VCR mode automatically and the playback picture or sound will be duplicated on the video cassette tape.

5 Press STOP if you finish recording.



If you wish to stop a DVD/CD disc, press DVD/VCR to change the DVD mode, then press STOP.

Notes:

- You may not be able to record the beginning of the disc. Begin VCR recording once program playback commences on the DVD.
- You can not record discs encoded with copy guard function. The following icon and text will show up on the TV screen.



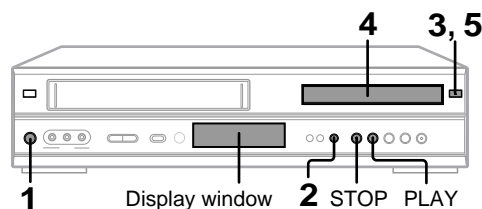
DISC IS COPY PROTECTED

Playing a disc

This section shows you the basics on how to play a disc.

CAUTION

Keep your fingers well clear of the disc tray as it is closing. Neglecting to do so may cause serious personal injury.



Basic playback

Preparations:

- When you want to view a disc, turn on the TV and select the corresponding video input connected to the DVD/VCR. This may include S-Video on component video inputs which are exclusive to DVD playback.
- When you want to enjoy the sound of discs from the audio system, turn on the audio system and select the input connected to the DVD/VCR.

1 Press the power button (I/⏻).

ON/STANDBY

The DVD/VCR turns on.



2 Press DVD/VCR to select the DVD mode.

VCR/DVD SELECT

The DVD indicator will light.



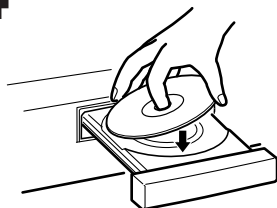
3 Press OPEN/CLOSE.

OPEN/CLOSE

The disc tray opens.



4 Place the disc on the disc tray.



With the playback side down

- There are two different disc sizes. Place the disc in the correct guide on the disc tray. If the disc is out of the guide, it may damage the disc and cause the DVD/VCR to malfunction.
- Do not place a disc which is unplayable in this DVD/VCR.

5 Press OPEN/CLOSE to close the disc tray.

Playback starts.

OPEN/CLOSE



If you insert a DVD video disc that contains a top menu, a menu may appear. See "Locating a title using the top menu." [46](#)

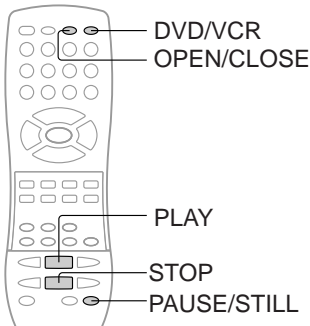
- You may need to press the TOP MENU or MENU button to display disc menu (depending on the actual DVD video disc.)

■ To start playback in the stop mode

Press **PLAY**.

PLAY









■ To obtain a higher quality picture


Occasionally, some picture noise not usually visible during a normal broadcast may appear on the TV screen while playing a DVD video disc because the high resolution pictures on these discs include a lot of information. While the amount of noise depends on the TV you use with this DVD/VCR, you should generally reduce the sharpness adjustment on your TV when viewing DVD video discs.

■ About

The    icons on the heading bar show the playable discs for the function described under that heading.

 : You can use this function with DVD video discs.

 : You can use this function with VIDEO CDs.

 : You can use this function with audio CDs.

■ To pause playback (still mode)

Press **PAUSE/STILL** during playback.

PAUSE/STILL

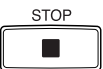


To resume normal playback, press the **PLAY** button.

- The sound is muted during still mode.

■ To stop playback

Press **STOP**.



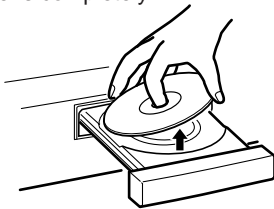
■ To remove the disc

Press **OPEN/CLOSE**.

OPEN/
CLOSE



Remove the disc after the disc tray opens completely.



Be sure to press the **OPEN/CLOSE** button to close the disc tray after you remove the disc.

■ About the screen saver

If you pause a picture of a DVD video disc and leave it still for a long while, the screen saver of the DVD/VCR player automatically appears (when "Screen Saver" is set to "On" **[61]**). To turn off the screen saver, press the **PLAY** button.

Notes:

- Do not move the DVD/VCR during playback. Doing so may damage the disc.
- Use the **OPEN/CLOSE** button to open and close the disc tray. Do not push the disc tray while it is moving. Doing so may cause the DVD/VCR to malfunction.
- Do not push up on the disc tray or put any objects other than discs on the disc tray. Doing so may cause the DVD/VCR to malfunction.
- In many instances, a menu screen will appear after playback of a movie is completed. Prolonged display of an on-screen menu may damage your television set, permanently etching that image onto its screen. To avoid this, be sure to press the **STOP** button on your remote control once the movie is completed.
- During the DVD playback if you change the operating mode from DVD to VCR, the DVD will continue to play back the disc and stop after about 5 minutes.

■ Playing a Disc while the VCR section is recording or standing by for timer recording

1) Start to record.

Follow step 1~5 on page 34.

- If the DVD/VCR is standing by for recording, turn on the DVD/VCR.

2) Press **DVD/VCR** to select DVD mode. The DVD indicator will light.

3) Play a disc.

Follow step 3 ~ step 5 on page 42.

- Press **PLAY** if the DVD/VCR does not start to play a disc automatically.

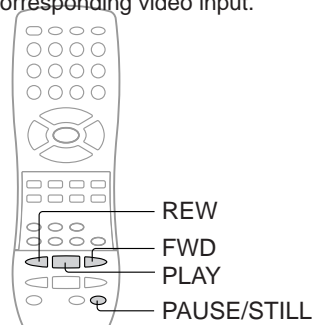
4) Stop to play

Press **STOP** to stop play back a disc.

Playing a disc (continued)

You can play discs at various speeds, and resume playback from the location where you stopped playback.

select the corresponding video input.



Playing in fast reverse or fast forward directions

Press **REW** or **FWD** during playback.



REW: Fast reverse playback
FWD: Fast forward playback

Each time you press the **REW** or **FWD** button, the playback speed changes.

■ To resume normal playback

Press **PLAY**.



Notes:

- The DVD/VCR mutes sound and subtitles during reverse and forward scan of DVD video discs. However, the DVD/VCR plays sound during fast forward or fast reverse play of audio CDs.
- The playback speed may differ depending on the disc.



Playing frame by frame

Press **PAUSE/STILL** during still playback.

PAUSE/STILL



Each time you press the **PAUSE/STILL** button, the picture advances one frame.

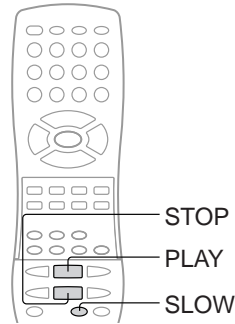
■ To resume normal playback

Press **PLAY**.



Note:


The sound is muted during frame by frame playback.



DVD VCD **Playing in slow-motion**

Press SLOW during playback.


SLOW



Each time you press the SLOW button, the slow-motion speed changes.

To resume normal playback

Press **PLAY**.




Note:
The sound is muted during slow-motion playback.

DVD VCD CD **Resuming playback from the same location**

1 Press STOP at the location where you want to interrupt playback.


STOP



The DVD/VCR memorizes the location where playback is stopped.

2 Press PLAY.

PLAY




The DVD/VCR resumes playback from the location where you stopped playback.

To start playback from the beginning regardless of the location where you stopped playback

1 Press **STOP** twice.


STOP



The DVD/VCR's memory is cleared.

2 Press **PLAY**.

PLAY



DVD Playback starts from the beginning of the current title.

VCD CD Playback starts from the beginning of the disc.

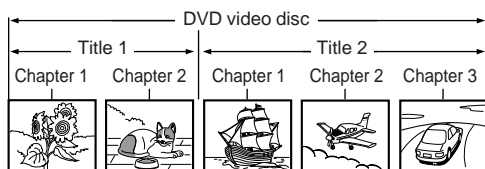
- If you want to return to the beginning of a DVD video disc, open and close the disc tray once with the OPEN/CLOSE button before pressing the PLAY button.

Notes:

- The DVD/VCR's memory is also cleared when:
 - you change the parental lock setting **[61]** or select a disc menu language **[59]**.
 - you open the disc tray.
- There may be a difference in the location where playback resumes depending on the disc.
- Settings you changed using the on-screen displays while the DVD/VCR stores a location in the memory may function only after the memory is cleared.

Locating a specific title, chapter, or track

Normally, DVD discs are divided into titles, and the titles are sub-divided into chapters. VIDEO CDs and audio CDs are divided into tracks. You can quickly locate any specific title, chapter, or track.



DVD Locating a title using the top menu

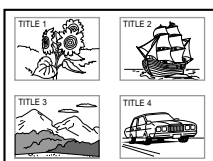
1 Press TOP MENU.

TOP MENU



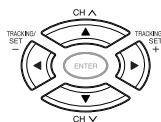
The top menu appears on the TV screen.

e.g.



2 Press ▲/▼/◀/▶ to select the title you want.

If the titles in the top menu are assigned a number, you can directly locate a specific title by pressing its designated number with the number buttons.



3 Press ENTER.

Playback starts from chapter 1 of the selected title.



Notes:

- The instructions above describe basic procedures which may vary depending on the contents of the DVD video disc. If different instructions appear on the TV screen, follow those instructions.
- If you display the top menu during playback and press the TOP MENU button again without selecting any title, the DVD/VCR may resume playback from the point where you first pressed the TOP MENU button (depending on the actual DVD video disc.)
- This method of locating a title is available only on a disc that contains a top menu.
- Instruction notes of discs may refer to the button that displays the top menu as TITLE button.

DVD VCD CD Locating a specific chapter or track

Press SKIP ◀◀ or ▶▶ repeatedly to display the chapter or track number you want.

Playback starts from the selected chapter or track.

SKIP/INDEX + To locate succeeding chapters or tracks



Playback starts from the beginning of the current chapter or track.

- INDEX/SKIP



When you press twice, playback starts from the beginning of the preceding chapter or track.

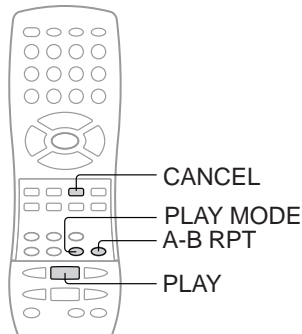
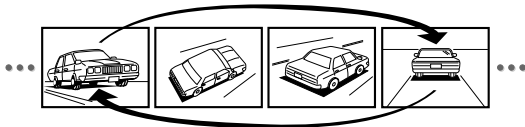
T 1 C 1

Notes:

- Some titles may not display chapter numbers.
- When you set "Title Stop" to "Off" [63], you can access chapters in another title. If you go back to the preceding title by pressing the SKIP ◀◀ button, the DVD/VCR locates the first chapter of the title. When "Title Stop" is set to "On," you can access chapters only within the current title.

Repeat playback / Random playback

You can play a specific title, chapter, track, or segment repeatedly. And also you can play titles, chapters within a title, or tracks in random order.



DVD VCD CD Repeat playback and Random playback

1 Press PLAY MODE.



Each time you press the PLAY MODE button, the repeat mode changes as follows.

Chapter Repeat

- DVD Chapter Repeat Repeats the current chapter.
- DVD Title Repeat Repeats the current title.
- VCD CD Track Repeat Repeats the current track.
- DVD VCD CD All Repeat Repeats the entire disc.
- DVD Chapter Random Plays the chapters within the current title in random order.
- DVD Title Random Plays the titles in random order.
- VCD CD Track Random Plays the tracks in random order.
- Off Resumes normal playback.

2 Press PLAY.



The DVD/VCR starts repeat playback or random playback. Press the PLAY button within about 5 seconds after you press the PLAY MODE button.

To resume normal playback

Press CANCEL.



Notes:

- If you press the PLAY MODE button during playback, the DVD/VCR automatically starts repeat playback and random playback after finishing the current title, chapter or track.
- Some discs may not permit repeat operation.
- You cannot use the random playback function in conjunction with the memory playback function.

DVD VCD CD Repeating a specific segment

1 Press A-B RPT at the beginning of the segment (point A) you want to play repeatedly.



A-

2 Press A-B RPT again at the end of the segment (point B).



The DVD video player automatically returns to point A and starts repeat playback of the selected segment (A-B).

A-B

To resume normal playback

Press CANCEL.

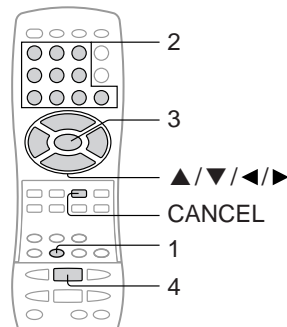


Notes:

- Some discs may not permit A-B repeat operation.
- You cannot set the A-B repeat function for a segment that includes multiple camera angles (50).
- You can specify a segment only within the current title or track (VIDEO CD).
- There may be a slight difference between point A and the location where playback actually resumes depending on the disc.

Playing in a favorite order

You can combine your favorite titles, chapters, or tracks and play them in the order you determine. You can program up to 30 selections into the memory. (Memory playback)



DVD VCD CD Setting titles, chapters, or tracks in a favorite order

1 Press MEMORY.



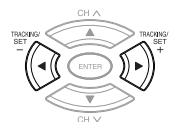
during stop



during playback



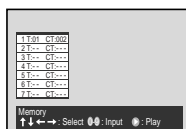
2 Press ◀/▶ to select "T" or "CT". Use the number buttons to input the favorite number.



- T : Title number
- CT : Chapter number or track number
- If you input a large number than the number that is recorded on the disc, the bar will be skipped.
- The input number into "T" for CD is not effective.



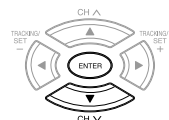
during stop



during playback

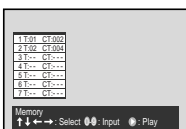


3 Press ▼ or ENTER. Set the "T" and "CT" to bar that you want to enter as in step 2.



- When you select another chapter In the same title, you do not need to select the title number.

during stop



during playback



4 Press PLAY to start MEMORY playback.



To cancel the programmed selections

- While the display appears on the TV screen, press ▲ / ▼ to move the highlighted bar to the item you want to cancel.
- Press **CANCEL**.

To resume normal playback from memory playback

Press **CANCEL**.



The memory playback indicator disappears.

To program during playback

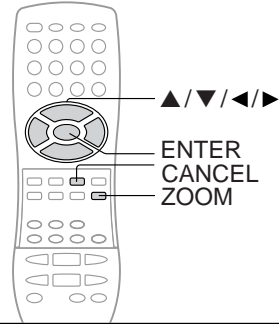
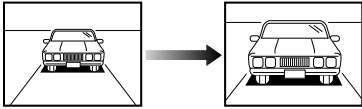
If you press the **MEMORY** button during playback, a programming display appears. Follow steps 2 and 3.

Notes:

- Some discs may not permit memory playback operation.
- If you press the **MEMORY** or **RETURN** button while the display appears on the TV screen, the display disappears.
- The programmed selections will be cleared when you turn off the DVD/VCR.

Zooming a picture

You can magnify areas within a picture.



DVD Zooming a picture

Press **ZOOM** during normal, slow or still playback.

ZOOM
CM SKIP



The DVD/VCR enters the zoom playback mode and displays the icon.

e.g.



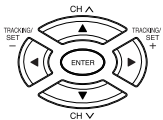
ZOOM : As you repeatedly press the ENTER (or ZOOM) button while "ZOOM" is selected, the magnification level changes.

Variation of the levels includes image reduction.

EXIT : If you press the ENTER button while "EXIT" is highlighted, you can turn off the icon, maintaining the current magnification level.

You can shift the highlight within the icon by the ▲/▼/◀/▶ buttons.

If you press the ▲/▼/◀/▶ buttons, the zoom point shifts.



CANCEL



Pressing the CANCEL button restores the zoom point to the center of the picture.

To resume normal playback

While "ZOOM" is selected, press **ZOOM** repeatedly to turn off the icon. Normal picture size is restored when the icon disappears.

ZOOM
CM SKIP



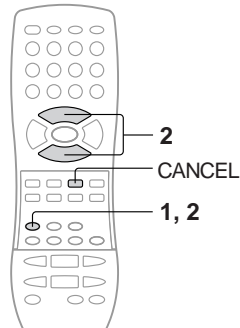
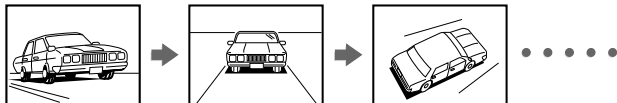
- The ENTER button cannot cancel zoom playback if you have turned off the icon by selecting "EXIT." To restore normal picture size, press the ZOOM button to display the icon, then further press the ZOOM button until the icon turns off.

Notes:

- Some discs may not respond to zoom feature.
- During some scenes, the buttons may not work as described.
- Zooming does not work on subtitles or menus included on DVD video discs.
- The magnification level varies depending on the picture size you select. **58**

Selecting the camera angle

If the scene was recorded from multiple angles, you can easily change the camera angle of the scene you are watching.



DVD Changing the camera angle

1 Press ANGLE while playing a scene recorded with multiple angles.



While playing a scene recorded with multiple angles, the angle icon (Ⓜ) flashes in the DVD display. Press the ANGLE button while the angle icon is flashing.

e.g.



■ To turn off the angle number display

Press CANCEL.



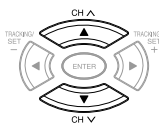
Notes:

- You can change the camera angle during still playback. The camera angle changes to the new setting when you resume normal playback.
- If you pause a picture immediately after changing a camera angle, the resumed playback picture may not display the new camera angle.

2 Press ANGLE or ▲ / ▼ while the angle number is displayed on the TV screen.



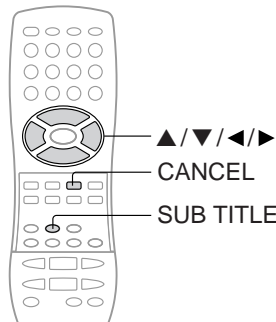
Each time you press the ANGLE button, the camera angle changes.



You can change the camera angle directly by pressing the number buttons corresponding to its angle number instead of using the ▲ / ▼ buttons.

Selecting subtitles

You can display subtitles on the TV screen and select a subtitle language from those included on the DVD video disc.



DVD Selecting a subtitle language

1 Press **SUB TITLE** during playback.
SUB TITLE
ATR



The current subtitle setting is displayed.

e.g.



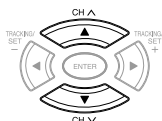
The abbreviation of the language appears instead of the language name. Refer to the list of languages and their abbreviations. **64**

2 Press **SUB TITLE** or **▲/▼** while the subtitle setting is displayed on the TV screen.

SUB TITLE
ATR



To turn off the subtitle setting display, press the **CANCEL** or **ENTER** button.



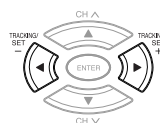
To turn subtitles on or off

1 Press **SUB TITLE** during playback.

SUB TITLE
ATR



2 Press **◀/▶** while the subtitle setting is displayed on the TV screen, to select "On" or "Off."



Notes:

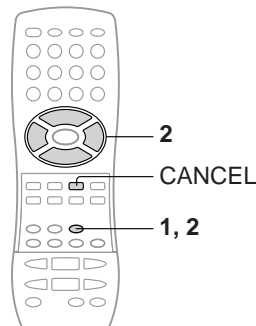
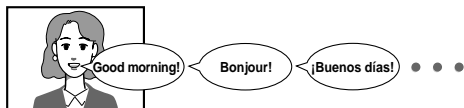
- Some DVD video discs are set to display subtitles automatically, and you cannot turn them off even if you set the subtitle function to off.
- During some scenes, the subtitles may not appear immediately after you select "On."
- Some DVD video discs will allow you to make subtitle selections and turn subtitles on or off only via the disc menu.

Notes:

- When you turn on the DVD/VCR or replace a disc, the player returns to the initial default setting **60**. When you select a subtitle language which is not included on the disc, the DVD/VCR displays a prior language programmed on the disc.
- During some scenes, the subtitles may not appear immediately after you change the subtitle language.

Selecting a language

You can select a preferred language and sound recording system from those included on the DVD video disc.




DVD VCD Selecting a playback audio setting


1 Press AUDIO during playback.

The current audio setting is displayed.

AUDIO AUDIO SELECT



e.g.




The abbreviation of the language appears instead of the language name. Refer to the list of languages and their abbreviations. **64**

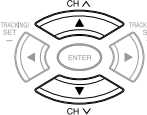
2 Press AUDIO or ▲/▼ while the audio setting is displayed on the TV screen.

Each time you press the AUDIO button, the audio settings included on the DVD video disc change.

AUDIO AUDIO SELECT



CH ▲



CH ▼

If you press the ◀/▶ buttons, you can select output sound format. **58**


To turn off the audio setting display, press the CANCEL button.

- **Selecting sound channels of VIDEO CDs**
You can switch left and right channels by pressing the **AUDIO** button repeatedly during playback.

- Notes:**
- When you turn on the DVD/VCR or replace a disc, player returns to the initial default setting **60**.
If you select a sound track which is not included on the disc, the DVD/VCR plays a prior sound track programmed on the disc.
 - Some discs allow you to change audio selections only via the disc menu. If this is the case, press the MENU button and choose the appropriate language from the selections on the disc menu.

■ Output sound conversion table (sampling frequency/quantization bit)

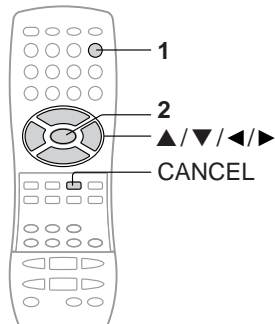
Discs	Recording system	Audio selection from the menu 56 / 58 and output jacks on the rear panel					
		"Bitstream"		"Analog 2ch"		"PCM"	
		BITSTREAM/PCM jack	ANALOG AUDIO OUT jacks	BITSTREAM/PCM jack	ANALOG AUDIO OUT jacks	BITSTREAM/PCM jack	ANALOG AUDIO OUT jacks
DVD video discs	Dolby Digital	Bitstream	48 kHz/20 bit	Bitstream	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit
	Linear PCM	48 kHz/16 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit
		48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit
		48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	48 kHz/16 bit
		96 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	—	96 kHz/16 bit	48 kHz/16 bit
		96 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	—	96 kHz/20 bit	48 kHz/16 bit
	96 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	—	96 kHz/24 bit	48 kHz/16 bit	
DTS	Bitstream	—	Bitstream	—	—	—	
MPEG1, MPEG2	Bitstream	48 kHz/16 bit	Bitstream	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	
VIDEO CDs	MPEG1	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit
Audio CDs	Linear PCM 44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit
	DTS	Bitstream	(Noise)	Bitstream	(Noise)	Bitstream	(Noise)

 : 3D sound enhancement can function.

Selecting the sound enhancement (E.A.M.*)

You can easily select a preferred audio enhancement.

*E.A.M.: Enhanced Audio Mode



DVD VCD CD Selecting the sound enhancement

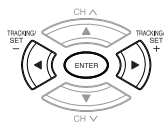
1 Press **DISPLAY** twice.
The following display appears.

DISPLAY/CALL

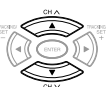


2 Press **◀/▶** to select the **E.A.M** icon, then press **ENTER**.

The sound enhancement menu appears.



3 Select the sound enhancement by pressing **▲/▼**.



Each time you press the button, the sound enhancement changes.



Normal:
Normal sound.



3D:
To obtain expansive virtual surround sound effects from just two speakers.



Dialogue:
To control critical center channel information to make dialogue more intelligible (only when playing a DVD video disc recorded on the Dolby Digital recording system).
• To use this enhancement on sounds output from the BITSTREAM/PCM jack, be sure to set "Audio Out Select" to "PCM." **58**

To exit the audio enhancement selection

Press **CANCEL**.

CANCEL



Notes:

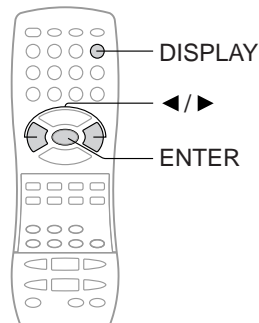
- Actual effects to audio may vary depending on the speaker system. Make selection according to your preference.
- Actual effects to audio may vary depending on the disc.
- When the DVD/VCR is connected to an amplifier equipped with Dolby Pro Logic Surround, select "Normal". Otherwise, Dolby Pro Logic Surround may function differently than usual.
- Selecting "Dialogue" disables "Dynamic Range Control" function **58**.
- During MP3 playback, the sound enhancement is not effective.

Spatializer® 3-Dimensional Sound Processing provided by Desper Products, Inc.

Certain audio features of this product manufactured under a license from Desper Products, Inc., Spatializer® and the circle-in-square device are trademarks owned by Desper Products, Inc.

On-screen display operation

When you turn on the on-screen display, you can view information on operational status and access features and settings.



On-screen display operation

Press DISPLAY.

DISPLAY/CALL



The following display appears.
 Each time you press the DISPLAY button, the on-screen display changes as follows.
 If you press the </> buttons to select an icon, then press the ENTER button, you can access the specific feature.
 When you select an icon (*), there is no need to press the ENTER button.
 See the pages in [] for details on the features.

e.g. When playing a DVD video disc



Press DISPLAY again.



Press DISPLAY again.

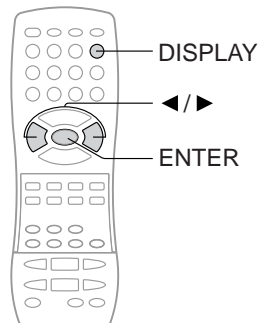


- T** * : Title number (Track number)
Locate a title or track using the number buttons. [46]
- C** * : Chapter number
Locate a chapter using the number buttons. [46]
- [clock icon] * : Elapsed time of the current title
To enter the time to locate a desired location.
- [audio icon] : Audio setting [52]
- [sub icon] : Subtitle setting [51]
- [angle icon] : Angle setting [50]
- [display off icon] : To turn off the display.

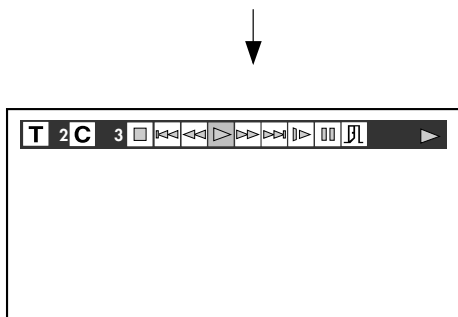
- T** * : Title number (Track number)
Locate a title or track using the number buttons. [46]
- C** * : Chapter number
Locate a chapter using the number buttons. [46]
- [clock icon] * : Remaining time of the current title
To enter the time to locate a desired location.
- [E.A.M. icon] : E.A.M. (Enhanced Audio Mode). [53]
- [ZOOM icon] : To zoom a picture. [49]
- [audio icon] : "Audio Out Select" setting [58]
BST: Bitstream 2CH: Analog 2ch PCM: PCM
- [display off icon] : To turn off the display.

(continued)

On-screen display operation (continued)

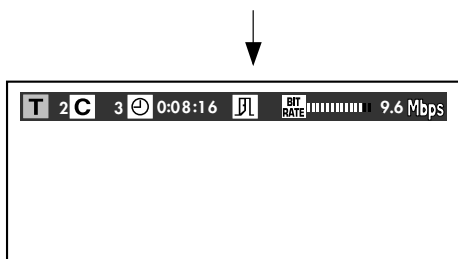


DVD VCD CD On-screen display operation (continued)



- T** * : Title number (Track number)
Locate a title or track using the number buttons. **46**
- C** * : Chapter number
Locate a chapter using the number buttons. **46**
- : To stop playback. **43**
- : Playback starts from the beginning of the current chapter or track. **46**
- : Fast reverse playback **44**
- : To start playback. **42**
- : Fast forward playback **44**
- : To locate succeeding chapters or tracks. **46**
- : To begin slow motion playback. **45**
- : To pause playback. **43**
- : To turn off the display.

Press DISPLAY again.



OFF

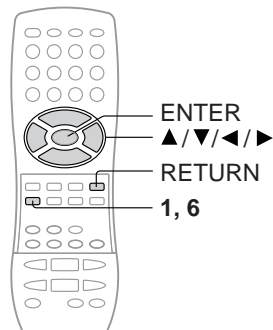
To turn off the on-screen display, press DISPLAY again.

The on-screen display will vary depending on the disc.

- DVD** : Data transfer rate (Mbit/s)
= Amount of picture, sound and subtitle data in the DVD video disc transferred per second.
The larger the value is, the more data processed, but this does not necessarily insure better picture quality.
- CD** : CD-Text
Displays CD-Text data if included on the audio CDs. (Some characters may not be displayed properly depending on the disc.)
- VCD** : The on-screen display turns off.

Customizing the function settings

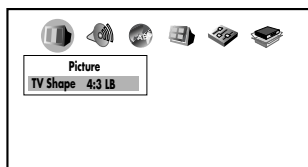
You can change the default settings to customize performance to your preference.



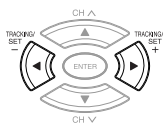
DVD
VCD
CD

Setting procedure

1 Press **SET UP** during stop.
The following on-screen display appears.



2 Press **◀/▶** to select a symbol for the setting you want to change.
(See the next page.)



Picture performance settings



Output sound settings



Language settings



Display settings

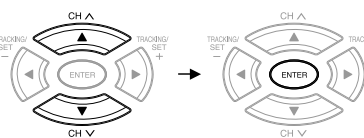


Operational settings



Initial setup

3 Press **▲/▼** to select the setting you want to change, then press **ENTER**.



4 Change the selection by **▲/▼** or other buttons, by referring to the corresponding pages **57**, then press **ENTER**.



5 Repeat steps 3 and 4 to change other settings.
To select another operation, go back to step 2.

































6 Press **SET UP**.
The on-screen display disappears.



■ **To return to the previous display**
Press **RETURN**.

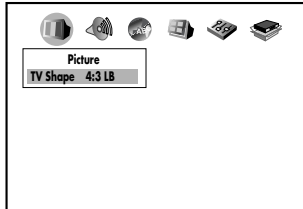
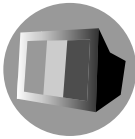


Note:
The on-screen display disappears when you press the **SET UP** button.

Setting		Details	Page
	TV Shape	 To select a picture size according to the aspect ratio of your TV.	58
	Audio Out Select	   To select an output sound format corresponding to your system connection.	58
	Dynamic Range Control	 To turn on or off a function that makes faint sounds easier to hear even if you lower the volume during late hours playback.	58
	Karaoke Vocal	 To turn on or off the vocal output during DVD KARAOKE disc playback.	59
	On-Screen Language	   To select a preferred language for on-screen displays.	59
	Disc Menu Language	 To select a preferred language for disc menus.	59
	Audio Language	 To select a preferred language for the sound track.	60
	Subtitle Language	 To select a preferred language for subtitles.	60
	On-Screen Displays	   To turn on or de-activate the operational status display on the TV screen.	61
	Background	   To select the background color or background picture.	61
	Screen Saver	 To turn the screen saver on or off.	61
	Pause/Still	 To select the resolution of still pictures. (Field/Frame)	61
	Parental Lock	 To turn the parental lock function on or off.	61
	Title Stop	 To turn on or off a feature that automatically stops playback after a title has been viewed.	63
	PBC	 To use the menu screen when playing a PBC-controllable VIDEO CD.	63
	On-Screen Language TV Shape Audio Out Select	   To install the initial system setting.	63

Customizing the function settings (continued)

Setting details



TV Shape DVD

4:3 Letterbox: Select when a standard 4:3 TV is connected.
 Displays theatrical images with masking bars above and below the picture.



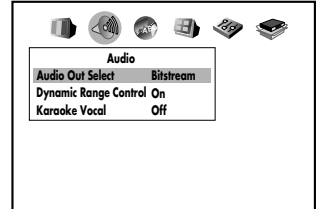
4:3 Normal: Select when a standard 4:3 TV is connected.
 Displays pictures cropped to fill your TV screen. Either or both sides of the picture are cut off.



16:9 Widescreen: Select when a 16:9 wide TV is connected.

Notes:

- The displayable picture size is preset on the DVD video disc. Therefore, the playback picture of some DVD video discs may not conform to the picture size you select.
- When you play DVD video discs recorded in the 4:3 picture size only, the playback picture always appears in the 4:3 picture size regardless of the TV shape setting.
- If you select "16:9 Widescreen" and you own a 4:3 TV set, the DVD playback picture will be horizontally distorted during playback. Images will appear to be horizontally compressed. Always be sure that your TV shape conforms to the actual TV in use.



Audio Out Select DVD VCD CD

Select the output sound format corresponding to your system connection.
 For details of sound recording systems, see [52](#).

Bitstream: Select when connected to an amplifier equipped with a Dolby Digital, DTS, MPEG1 or MPEG2 decoder. [20](#) [21](#)
 The DVD/VCR outputs digital audio information in the bitstream format when you play a DVD video disc recorded on the Dolby Digital, DTS, MPEG1 or MPEG2 recording system.

Analog 2ch: Select when connected to a TV, or Dolby Pro Logic or stereo system via the analog audio jacks. [18](#) [19](#) [20](#)

PCM: Select when connected to a 2 channel digital stereo amplifier. [21](#)
 The DVD/VCR outputs sounds in the PCM 2ch format when you play a DVD video disc recorded on the Dolby Digital, MPEG1 or MPEG2 recording system.

Dynamic Range Control DVD

Off: Full dynamic range is maintained.
On: Dynamic range is reduced.

Notes:

- This function works only during playback of Dolby Digital recorded discs.
- The level of Dynamic Range Reduction may differ depending on the DVD video disc.

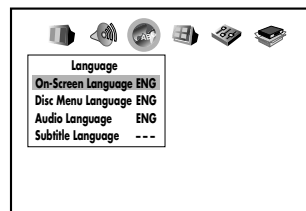
Karaoke Vocal

Off: The primary vocal is not output.

On: The primary vocal is output when it is recorded on the disc.

Notes:

- The vocal output feature is used during playback of Dolby Digital (multi-channel) recorded DVD KARAOKE discs. This feature allows you to turn off vocal audio tracks, or restore them for background accompaniment.
- When playing KARAOKE, connect appropriate audio equipment such as an amplifier to the DVD/VCR.



On-Screen Language

English: To view on-screen displays in English.

Français: To view on-screen displays in French.

Español: To view on-screen displays in Spanish.

Disc Menu Language

English: To display disc menus in English.

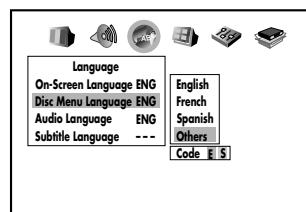
French: To display disc menus in French.

Spanish: To display disc menus in Spanish.

Others: To make a further choice.

After pressing the ENTER button, follow steps 1) - 4) below.

- 1) Obtain the abbreviation of the preferred language from the list **[64]**.
- 2) Select the first character by pressing the ▲ / ▼ buttons.
- 3) Press the ◀ / ▶ buttons to shift and select the second character by pressing the ▲ / ▼ buttons.



- 4) Press the ENTER button.

Note:

Some DVD video discs may not include your pre-selected language. In this case, the DVD/VCR automatically displays disc menus consistent with the disc's initial language setting.

Customizing the function settings (continued)

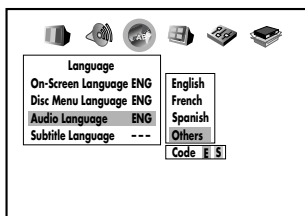
Setting details

Audio Language (DVD)

English: To play sound tracks in English.
 French: To play sound tracks in French.
 Spanish: To play sound tracks in Spanish.
 Others: To make a further choice.

After pressing the ENTER button, follow steps 1) - 4) below.

- 1) Obtain the abbreviation of the preferred language from the list **[64]**.
- 2) Select the first character by pressing the ▲ / ▼ buttons.
- 3) Press the ◀ / ▶ buttons to shift and select the second character by pressing the ▲ / ▼ buttons.



- 4) Press the ENTER button.

Note:

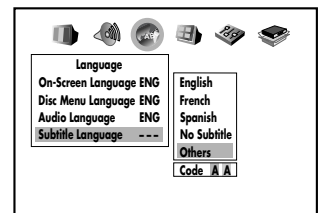
Some DVD video discs may be played in a different language than you selected. A prior language may be programmed on the disc.

Subtitle Language (DVD)

English: To display subtitles in English.
 French: To display subtitles in French.
 Spanish: To display subtitles in Spanish.
 No Subtitle: To disable subtitles.
 Others: To make a further choice.
 After pressing the ENTER button, follow steps 1) - 4) below.

- 1) Obtain the abbreviation of the preferred language from the list **[64]**.
- 2) Select the first character by pressing the ▲ / ▼ buttons.

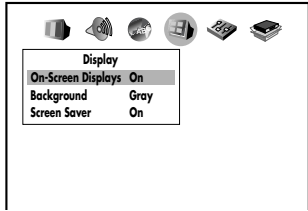
- 3) Press the ◀ / ▶ buttons to shift and select the second character by pressing the ▲ / ▼ buttons.



- 4) Press the ENTER button.

Notes:

- Some DVD video discs may be set to display subtitles in a different language than you selected. A prior subtitle language may be programmed on the disc.
- Some DVD video discs allow you to change subtitle selections only via the disc menu. If this is the case, press the MENU button and choose the appropriate subtitle language from the selection on the disc menu.



On-Screen Displays (DVD) (VCD) (CD)

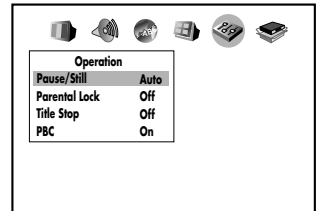
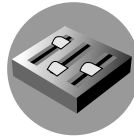
- Off: Operational modes (e.g. "□□", "▶▶") are not displayed.
- On: Operational modes (e.g. "□□", "▶▶") are displayed on-screen.

Background (DVD) (VCD) (CD)

- Blue: Blue background.
- Gray: Gray background.
- Picture: To use the picture which appears when you turn on the DVD/VCR as a background.
- Jacket: To use the jacket picture included on some discs as a background. If it is not included, a gray background will be substituted.

Screen Saver (DVD)

- Off: The screen saver is disengaged.
- On: The screen saver operates.



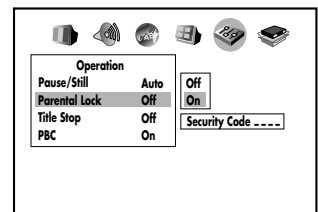
Pause/Still (DVD)

- Auto: For normal use. Still and fast motion images can be paused.
- Frame: The resolution of still pictures is improved, so that you can make a motionless picture more clearer when you pause it.

Parental Lock (DVD)

DVD video discs equipped with the parental lock function are rated according to their content. The contents allowed by a parental lock level and the way a DVD video disc can be controlled may vary from disc to disc. For example, if the disc allowed you could edit out violent scenes unsuitable for children and replace them with more suitable scenes, or lock out playback of the disc altogether.

- DVD video discs may or may not respond to the parental lock settings. This is not a defect in the DVD/VCR. Make sure this function works with your DVD video discs.
- Off: The parental lock feature does not function. After pressing the ENTER button, follow step 1) below.
- On: To activate the parental lock feature or change the settings. After pressing the ENTER button, follow steps 1) - 3) below.



(Continued)

Customizing the function settings (continued)

Setting details

(Continued)

- 1) Press the number buttons to create a personal 4-digit security code, then press the ENTER button.

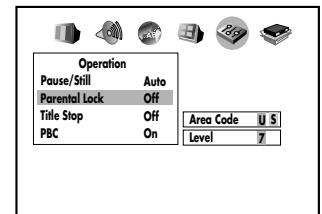
If you make a mistake before pressing the ENTER button, press the CANCEL button and enter your 4-digit security code again.

- 2) Enter the code of a country/area whose standards were used to rate the DVD video disc, referring to the list below.

Country/Area	Code
AUSTRALIA	AU
BELGIUM	BE
CANADA	CA
CHINA	CN
CHINA HONG KONG	HK
DENMARK	DK
FINLAND	FI
FRANCE	FR
GERMANY	DE
INDONESIA	ID
ITALY	IT
JAPAN	JP
MALAYSIA	MY
NETHERLANDS	NL
NORWAY	NO
PHILIPPINES	PH
RUSSIAN FEDERATION	RU
SINGAPORE	SG
SPAIN	ES
SWEDEN	SE
SWITZERLAND	CH
TAIWAN	TW
THAILAND	TH
UNITED KINGDOM	GB
UNITED STATES	US

- a) Select the first character by pressing the ▲ / ▼ buttons.
- b) Press the ◀ / ▶ buttons to shift and select the second character by pressing the ▲ / ▼ buttons.
- c) Press the ENTER button.

- 3) Press the ▲ / ▼ buttons to select the parental lock level, then press the ENTER button.



You cannot play DVD video discs rated higher than the level you selected unless you cancel the parental lock function.

For example, when you select level 7, discs rated higher than level 7 are locked out and cannot be played.

The parental lock level is equivalent to the following USA movie ratings.

- Level 7: NC-17
- Level 6: R
- Level 4: PG 13
- Level 3: PG
- Level 1: G

The parental lock levels for other countries/areas than U.S. are included for future use. Check the appropriate parental lock level when you buy a DVD video disc equipped with the parental lock feature in the future.

■ To change the parental lock level

Follow steps 1) - 3).

■ To change your 4-digit security code

- 1) After selecting "On" or "Off," press the STOP button four times, then press the ENTER button.



The 4-digit security code is cleared.

- 2) Press the number buttons to create a new 4-digit security code.
- 3) Press the ENTER button.

Title Stop (DVD)

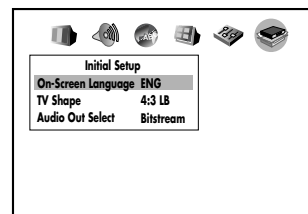
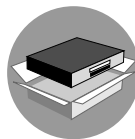
Off: The DVD/VCR continues after playback of a title is completed.

On: The DVD/VCR stops after playback of a title is completed.

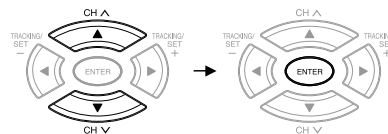
PBC (VCD)

Off: When playing a VIDEO CD without using the menu.

On: To use the menu when playing a PBC-featured VIDEO CD.

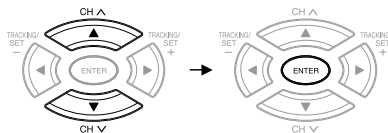
**Initial Setup** (DVD) (VCD) (CD)

- 1) Press the ▲ / ▼ buttons to select "On-Screen Language," and press the ENTER button.



- 2) Select a language pressing the ▲ / ▼ buttons, and press the ENTER button.

See page [59](#), "On-screen Language."



- 3) Make your selection in the same manner as step 1) then step 2).

See page [58](#), "TV Shape."

See page [58](#), "Audio Out Select."

Table of languages

Table of languages and their abbreviations

Abbreviation	Language	Abbreviation	Language	Abbreviation	Language
---	No alternate language	GN	Guarani	PT	Portuguese
CHI (ZH)	Chinese	GU	Gujarati	QU	Quechua
DUT (NL)	Dutch	HA	Hausa	RM	Rhaeto-Romance
ENG (EN)	English	HI	Hindi	RN	Kirundi
FRE (FR)	French	HR	Croatian	RO	Rumanian
GER (DE)	German	HU	Hungarian	RU	Russian
ITA (IT)	Italian	HY	Armenian	RW	Kinyarwanda
JPN (JA)	Japanese	IA	Interlingua	SA	Sanskrit
KOR (KO)	Korean	IE	Interlingue	SD	Sindhi
MAY (MS)	Malay	IK	Inupiak	SG	Sango
SPA (ES)	Spanish	IN	Indonesian	SH	Serbo-Croatian
AA	Afar	IS	Icelandic	SI	Singhalese
AB	Abkhazian	IW	Hebrew	SK	Slovak
AF	Afrikaans	JI	Yiddish	SL	Slovenian
AM	Amharic	JW	Javanese	SM	Samoan
AR	Arabic	KA	Georgian	SN	Shona
AS	Assamese	KK	Kazakh	SO	Somali
AY	Aymara	KL	Greenlandic	SQ	Albanian
AZ	Azerbaijani	KM	Cambodian	SR	Serbian
BA	Bashkir	KN	Kannada	SS	Siswati
BE	Belorussian	KS	Kashmiri	ST	Sesotho
BG	Bulgarian	KU	Kurdish	SU	Sundanese
BH	Bihari	KY	Kirghiz	SV	Swedish
BI	Bislama	LA	Latin	SW	Swahili
BN	Bengali, Bangla	LN	Lingala	TA	Tamil
BO	Tibetan	LO	Laotian	TE	Telugu
BR	Breton	LT	Lithuanian	TG	Tajik
CA	Catalan	LV	Latvian, Lettish	TH	Thai
CO	Corsican	MG	Malagasy	TI	Tigrinya
CS	Czech	MI	Maori	TK	Turkmen
CY	Welsh	MK	Macedonian	TL	Tagalog
DA	Danish	ML	Malayalam	TN	Setswana
DZ	Bhutani	MN	Mongolian	TO	Tongan
EL	Greek	MO	Moldavian	TR	Turkish
EO	Esperanto	MR	Marathi	TS	Tsonga
ET	Estonian	MT	Maltese	TT	Tatar
EU	Basque	MY	Burmese	TW	Twi
FA	Persian	NA	Nauru	UK	Ukrainian
FI	Finnish	NE	Nepali	UR	Urdu
FJ	Fiji	NO	Norwegian	UZ	Uzbek
FO	Faroese	OC	Occitan	VI	Vietnamese
FY	Frisian	OM	(Afan) Oromo	VO	Volapük
GA	Irish	OR	Oriya	WO	Wolof
GD	Scottish Gaelic	PA	Panjabi	XH	Xhosa
GL	Galician	PL	Polish	YO	Yoruba
		PS	Pashto, Pushto	ZU	Zulu

Before calling service personnel

Check the following guide for the possible cause of a problem before contacting service.

Symptoms and correction

SYMPTOMS	POSSIBLE SOLUTIONS	PAGE
DVD/VCR		
DVD/VCR does not operate.	<ul style="list-style-type: none"> • Make sure the power cord is plugged in. • Try another AC outlet. • Power is off, check fuse or circuit breaker. • Unplug unit, then plug it back in. • Select the DVD or VCR mode before operating. 	5 – – 5 30,42
No picture.	<ul style="list-style-type: none"> • Antenna connection is not correct or antenna cable is disconnected. • The video channel is not in the correct position or the TV is not set to the video channel 3 or 4. • Check the unit is connected correctly. • The video input selector of the TV is not set to VIDEO. Set to VIDEO (or equivalent). • Channel is set to the external mode. 	14–17 22 14–19 – –
No sound.	<ul style="list-style-type: none"> • Check the unit is connected correctly. • Check the input selector of the amplifier is set properly. • The unit is in the Special playback mode. 	14–19 – 31,34
The remote control does not function.	<ul style="list-style-type: none"> • Aim at the remote control at the remote sensor. • Operate within Approx. 7 Meters or reduce the light in the room. • Clear the path of the beam. • The batteries are weak. Replace the batteries. • Check the batteries are inserted correctly. • Check the frequency code is set correctly. 	13
No CATV reception	<ul style="list-style-type: none"> • Check all CATV connections. • Station or CATV system problems, try another station. 	16,17
VCR		
TV recording does not work.	<ul style="list-style-type: none"> • The erase prevention tab of the video cassette is broken off. • The unit is in the external input mode. 	29,34
Timer recording does not work.	<ul style="list-style-type: none"> • The time is not set correctly. • The recording start/end time is not set correctly. • The TIMER has not been pressed (⏸ is not lit). 	24 37 37
Noise bars on screen.	<ul style="list-style-type: none"> • Tracking adjustment beyond range of automatic tracking circuit. Try Manual tracking adjustment. • Video heads are dirty. • The tape is worn or damaged. 	31 31 –
DVD		
Display is not shown in your language.	<ul style="list-style-type: none"> • Select proper language in the menu options. 	59
Playback doesn't start.	<ul style="list-style-type: none"> • No disc is inserted. • The disc may be dirty. Clean up the disc. • The unit cannot play DVD-ROMs, etc. 	42 42 42
Stopping playback, slow-motion play, repeat play, or memory play, etc. cannot be performed.	<ul style="list-style-type: none"> • Some discs may not do some of the functions. • When you press VCR MENU while watching a DVD with the connections of the DVD exclusive terminal (S-VIDEO cable or COMPONENT cable) to a TV, you cannot perform all the DVD functions. In this case, wait for approx. 60 seconds with no pressing of any buttons. 	– –
No 4:3 (16:9) picture	<ul style="list-style-type: none"> • The setup does not match your TV. 	58
No on-screen display	<ul style="list-style-type: none"> • Select Display On. 	61
No surround sound	<ul style="list-style-type: none"> • The setup does not match your stereo system. 	58
The unit or remote operation key is not functioning.	<ul style="list-style-type: none"> • Turn off the unit and unplug the AC power cord for several minutes, then replug it. 	–
Playback does not start when the title is selected.	<ul style="list-style-type: none"> • Check the Parental setup. 	61
Audio soundtrack and/or subtitle language is not changed when you play back a DVD.	<ul style="list-style-type: none"> • Multilingual language is not recorded on the DVD disc. 	52
No subtitle	<ul style="list-style-type: none"> • Some discs have no subtitles. • Subtitles are cleared. Press SUB TITLE. 	51
Angle cannot be changed.	<ul style="list-style-type: none"> • Multi-angles are not recorded on the DVD disc. 	50
⊙ appears on the screen.	<ul style="list-style-type: none"> • The function is prohibited with the unit or the disc. 	–

Specifications

General / input / output / supplied accessories

GENERAL

Power supply	AC 120V 60Hz
Power consumption	Operation: 20W, Stand by: 4W
Weight	9.9lbs (4.5 kg)
Dimensions	Width : 16-15/16 inches (430 mm) Height : 3-7/8 inches (99 mm) Depth : 12-3/8 inches (314.5 mm)
Tuner	181 channel freq. synthesized VHF 2-13 UHF 14-69 CATV 113 Channels
Antenna input/output	UHF/VHF In/Out : 75 ohm coaxial
RF channel output	Channel 3 or 4, Switchable
Color system	NTSC
Video head	4 Rotary heads
Audio track	Hi-Fi sound - 2 Tracks / MONO sound - 1 Track
Hi-Fi frequency response	20Hz to 20,000Hz
Hi-Fi dynamic range	More than 90dB
F.FWD/REW time at 25°C (77°F)	Approx. 1minute and 48 seconds (with T-120 Cassette Tape)
Applicable disc	DVD (12cm, 8cm), CD (12cm, 8cm)
Frequency range	DVD linear sound: 48 kHz sampling 4Hz-22kHz 96 kHz sampling 4Hz-44 kHz
S/N ratio	90dB
Harmonic distortion	0.01%
Wow and flutter	Below measurable level
Dynamic range	90dB
Operating conditions	Temperature: 5°C-40°C (41°F-104°F), Operating status: Horizontal

Input/Output

DVD/VCR	
Video input	1.0 V (p-p), 75 Ω, negative sync., pin jack x 2
Video output	1.0 V (p-p), 75 Ω, negative sync., pin jack x 1
Audio input	300mV (rms), 50kΩ. negative sync., pin jack (L/R) x 2
Audio output	300mV (rms), 1kΩ. negative sync., pin jack (L/R) x 1
DVD	
S video output	(Y) 1.0 V (p-p), 75 Ω, negative sync., Mini DIN 4-pin x 1 (C) 0.286 V (p-p), 75 Ω
Component video output	(Y) 1.0 V (p-p), 75 Ω, negative sync., pin jack x 1 (P _B)/(P _R) 0.7 V (p-p), 75 Ω, pin jack x 2
Audio output (BITSTREAM/PCM COAXIAL)	0.5V (p-p), 75 Ω, pin jack x 1
Audio output (BITSTREAM/PCM OPTICAL)	Optical connector x 1
Audio output (ANALOG)	2.0 V (rms), 220 Ω, pin jacks (L, R) x 1

Supplied accessories

Audio/video cable	1
Remote control (SE-R0066)	1
Batteries (AAA)	2
75 ohm coaxial cable	1

- Designs and specifications are subject to change without notice.

LIMITED WARRANTY DVD VIDEO PLAYER

Toshiba America Consumer Products, Inc. ("TACP"), Toshiba Hawaii ("THI") and Toshiba Canada Limited ("TCL") make the following limited warranties. These limited warranties extend to original purchaser or any person receiving this set as a gift from the original purchaser and to no other purchaser or transferee.

Limited Ninety (90) Day Warranty

TACP/THI warrant this product against defects in materials or workmanship for a period of ninety (90) days after the date of original retail purchase. During this period, TACP/THI will repair or replace a defective product or part, at their option, with a new or refurbished product or part without charge to you. You must deliver the entire product to a TACP/THI Authorized Service Station. You are responsible for all transportation and insurance charges for the unit to and from the Authorized Service Station. If you live in the U.S.A. you may, at your option, return your DVD Unit to:

Toshiba America Consumer Products Inc.
Returns Center
1420C Toshiba Dr.
Lebanon, TN 37087

Upon receipt we will, at our option, exchange the DVD Unit with a new or refurbished unit. **Canadian consumers are requested to contact TCL. In Hawaii consumers are requested to contact THI.**

Limited One (1) Year Warranty

TACP/THI further warrant the parts in this product against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. During this period, TACP/THI will repair or replace a defective product or part, at their option, with a new or refurbished product or part without charge to you, except that if a defective part is replaced after ninety (90) days from the date of the original retail purchase you pay labor charges involved in the replacement. You must also deliver the entire product to a TACP/THI Authorized Service Station. You are responsible for all transportation and insurance charges for the unit to and from the Authorized Service Station. If you live in the U.S.A. you may, at your option, return your DVD Unit to:

Toshiba America Consumer Products Inc.
Returns Center
1420C Toshiba Dr.
Lebanon, TN 37087

Upon receipt we will, at our option, exchange the DVD Unit with a new or refurbished unit. **Canadian Consumers are requested to contact TCL. In Hawaii consumers are requested to contact THI.**

Rental Units

The warranty for rental units begin with the first rental or thirty (30) days from the date of shipment to the rental firm, whichever comes first.

Commercial Units

Products sold and used for commercial use have a limited ninety (90) day warranty for all parts and labor.

Owner's Manual

You should read the owner's manual thoroughly before operating this product. You should complete and mail the enclosed Demographic card within ten (10) days after you, or the person who has given you this product as a gift, purchased this product. This is one way to enable TACP to provide you with better customer service and improved products. Failure to return the card will not affect your rights under this warranty.

Your Responsibility

The above warranties are subject to the following conditions:

- (1) You must retain your bill of sale or provide other proof of purchase.
- (2) You must notify a TACP/THI/TCL /Authorized Service Station within thirty (30) days after you discover a defective product or part.
- (3) All warranty servicing of this product must be made by a TACP/THI/TCL Authorized Service Station.
- (4) U.S.A. warranties are effective only if the product is purchased and operated in the Continental U.S.A. or Puerto Rico.
- (5) Labor service charges for set installation. Set up, adjustment of customer controls and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems are your responsibility.
- (6) Warranties extend only to defects in materials or workmanship as limited above and do not extend to any product or parts which have been lost or discarded by you or to damage to products or parts caused by misuse, accident, damage caused by Acts of God, such as lighting or fluctuations in electric power, improper installation, improper maintenance or use in violation of instructions furnished by us; or to units which have been altered or modified without authorization of TACP/THI/TCL or to damage to products or part thereof which have had the serial number removed, altered, defaced or rendered illegible.
- (7) Should you elect to return your DVD Unit to TACP after the ninety (90) days and within one (1) year, or after the warranty period has expired: Call (800)-631-3811 to receive information concerning an exchange price. Payment must be enclosed with product in the form of a certified check or money order including reason for return.
- (8) Physically damaged DVD Units are not acceptable for repair or exchange whether in or out of warranty and will be returned as received.

(Continued)

LIMITED WARRANTY DVD VIDEO PLAYER (continued)

How to Obtain Warranty Service

- (1) Refer to the troubleshooting guide in your owner's manual. This check list may solve your problem.
- (2) In the U.S.A., only call the TACP toll free number 800-631-3811, or if in Hawaii or Canada see listing below within (30) days after you find a defective product or part.
- (3) Arrange for the delivery of the product to the TACP/THI/TCL Authorized Service Station or TACP Return Center. Products shipped to the Service Station must be insured and safely and securely packed, preferably in the original shipping carton, and a letter explaining the defect and also a copy of the bill of sale or other proof of purchase must be enclosed.

In the Continental United States contact:



In Hawaii contact:

Toshiba Hawaii Inc.
327 Kamakee Street
Honolulu, HA 96814
(808)-521-5377

In Canada contact:

Consumer Electronics Group
191 McNabb Street
Markham, Ontario L3R 8H2
(905)-470-5400

Consumer Electronics Group
22171 Fraserwood Way
Richmond, B.C. V6W 1J5
(604)-303-2500

Consumer Electronics Group
18050 Trans canada
Kirkland, Quebec H9J 4A1
(514)-390-7766

All warranties implied by state law, including the implied warranties of merchantability and fitness for a particular purpose, are expressly limited to the duration of the limited warranties set forth above. With the exception of any warranties implied by state law as hereby limited, the foregoing warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of manufacturer or seller with respect to the repair or replacement of any parts. In no event shall TACP/THI be liable for consequential or incidental damages.

No person, agent, distributor, dealer or company is authorized to change, modify or extend the terms of these warranties in any manner whatsoever. The time within which an action must be commenced to enforce any obligation of TACP/THI arising under the warranty or under any statute, or law of the United States or any state thereof, is hereby limited to ninety (90) days from the date you discover or should have discovered, the defect. This limitation does not apply to implied warranties arising under state law.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. Some states do not allow limitation on how long an implied warranty lasts, when an action may be brought, or the exclusion or limitation of incidental or consequential damages, so the above provisions may not apply to you.

ATTENTION CANADIAN CONSUMERS:

Canadian consumers are requested to complete the special Canadian "Warranty Registration Form" enclosed, and forward this completed form with a copy of bill of sale to TOSHIBA OF CANADA to "Register and Validate" their warranty. Product must be purchased from an Authorized Canadian Dealer. Products purchased in the U.S.A. and used in Canada are not covered by these warranties.

IMPORTANT: PACKING AND SHIPPING INSTRUCTION

When you send the product to a Service Station, you must use the original carton box and packing material, then insert the original carton box containing the unit into another carton using more packing material.

TOSHIBA

TOSHIBA

DVD VIDEO PLAYER & VIDEO CASSETTE RECORDER SD-V280A

Quick set-up guide



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.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, do not expose this appliance to rain or moisture.

WARNING: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance with the FCC Rules could void the user's authority to operate this equipment.

CAUTION:
THIS DIGITAL VIDEO PLAYER EMPLOYS A LASER SYSTEM.

TO ENSURE PROPER USE OF THIS PRODUCT, PLEASE READ THIS USER'S GUIDE CAREFULLY AND RETAIN FOR FUTURE REFERENCE. SHOULD THE UNIT REQUIRE MAINTENANCE, CONTACT AN AUTHORIZED SERVICE LOCATION-SEE SERVICE PROCEDURE.

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

TO PREVENT DIRECT EXPOSURE TO LASER BEAM, DO NOT TRY TO OPEN THE ENCLOSURE. VISIBLE LASER RADIATION MAY BE PRESENT WHEN THE ENCLOSURE IS OPENED. DO NOT STARE INTO BEAM.

IMPORTANT SAFEGUARDS

1. READ INSTRUCTIONS

All the safety and operating instructions should be read before the unit is operated.

2. RETAIN INSTRUCTIONS

The safety and operating instructions should be retained for future reference.

3. HEED WARNINGS

All warnings on the unit and in the operating instructions should be adhered to.

4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

5. CLEANING

Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.

Use a damp cloth for cleaning the exterior cabinet only.

6. ATTACHMENTS

The manufacturer of this unit does not make any recommendations for attachments, as they may cause hazards.

7. WATER AND MOISTURE

Do not use this unit near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

8. ACCESSORIES

Do not place this unit on an unstable cart, stand, tripod, bracket, or table.

The unit may fall, causing serious injury, and serious damage to the unit.

- 8A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

9. VENTILATION

Slots and openings in the cabinet back or bottom are provided for ventilation, to ensure reliable operation of the unit, and to protect it from overheating.

These openings must not be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar surface.

This unit should never be placed near or over a radiator or heat source. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and/or the manufacturer's instructions have been adhered to.

10. POWER SOURCE

This unit should be operated only from the type of power source indicated on the rating plate. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.

11. GROUNDING OR POLARIZATION

This unit is 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, if your unit is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This too, is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

12. 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 appliance.

13. LIGHTNING

To protect your unit from 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 unit due to lightning and power line surges.

14. POWER LINES

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to avoid touching such power lines or circuits, as contact with them might be fatal.

15. OVERLOADING

Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.

16. OBJECT AND LIQUID ENTRY

Do not push objects through any openings in this unit, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid into the unit.

17. OUTDOOR ANTENNA GROUNDING

If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges, Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire

to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

18. SERVICING

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. DAMAGE REQUIRING SERVICE

Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the unit.
- If the unit has been exposed to rain or water.
- If the unit 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 unit to its normal operation.
- If the unit has been dropped or the cabinet has been damaged.
- When the unit exhibits a distinct change in performance, this indicates a need for service.

20. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part.

Unauthorized substitutions may result in fire, electric shock or other hazards.

21. SAFETY CHECK

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

22. HEAT

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

23. DISC TRAY

Keep your fingers well clear of the disc tray as it is closing. It may cause serious personal injury.

24. CONNECTING

When you connect the product to other equipment, turn off the power and unplug all of the equipment from the wall outlet. Failure to do so may cause an electric shock and serious personal injury. Read the owner's manual of the other equipment carefully and follow the instructions when making any connections.

25. LASER BEAM

Do not look into the opening of the disc tray or ventilation opening of the product to see the source of the laser beam. It may cause sight damage.

26. DISC

Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.

27. NOTE TO CATV SYSTEM INSTALLER

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

CONDENSATION

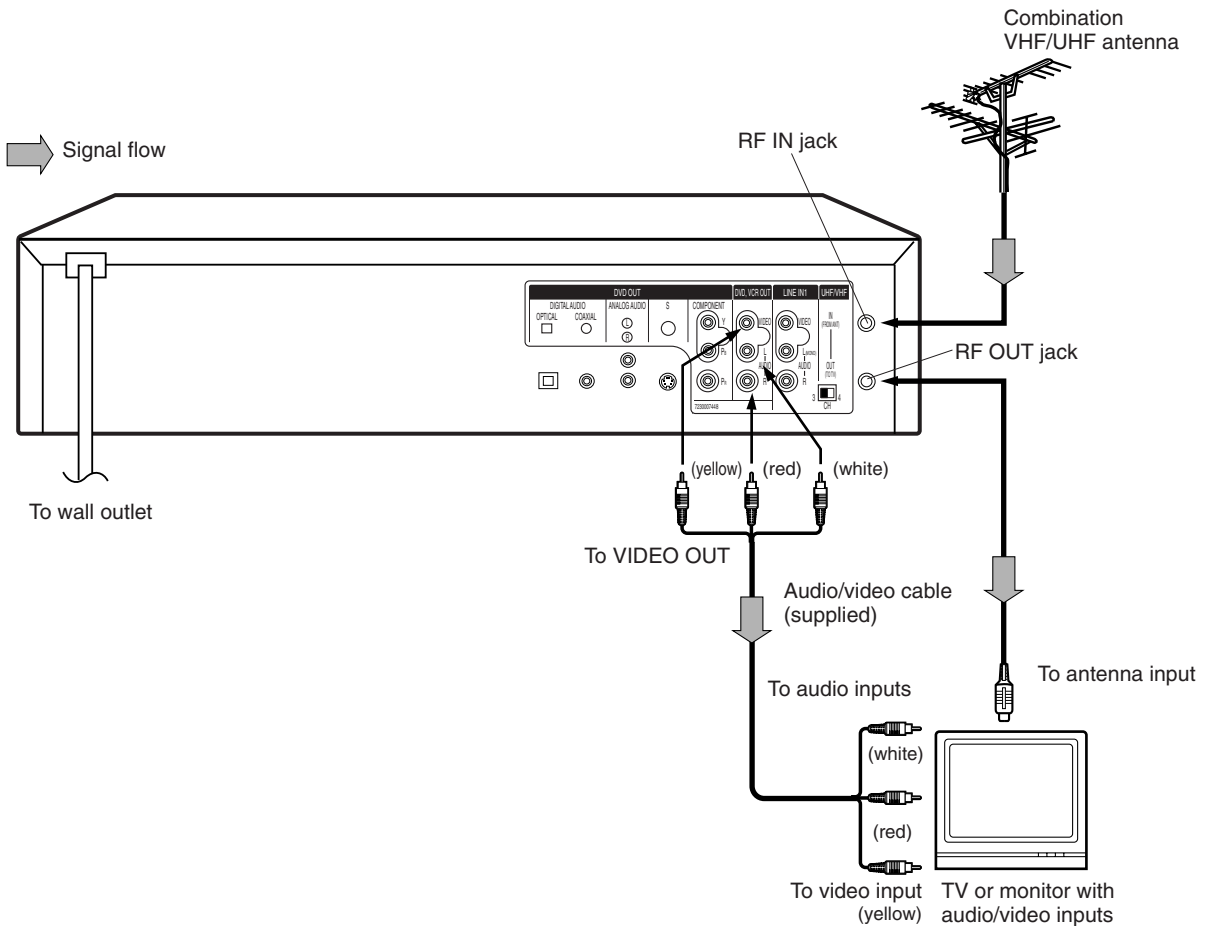
Moisture will form in the operating section of the DVD/VCR if the player is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly. When this happens, the DVD/VCR's performance will be impaired.

To prevent this, let the DVD/VCR stand in its new surroundings for about an hour before switching it on, or make sure that the room temperature rises gradually.





Condensation may also form during the summer if the DVD/VCR is exposed to the breeze from an air conditioner. In such cases, change the location of the DVD/VCR.




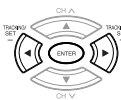
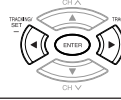

Connecting to a TV



Setting the video channel

- 1** Press **POWER** to turn on the DVD/VCR.
 
- 2** Press **DVD/VCR** to select the VCR mode. The VCR indicator on the front panel will light.
 
- 3** Set the 3/4 Channel selector switch on the rear panel to **CH 3** or **4**.
 
- 4** Turn ON the TV and set to CH 3 or 4 to correspond with the channel selected in step 3.
- 5** Press **TV/VCR** to select the VCR position. The VCR indicator will appear in the display window.
 
- 6** Select any channel to receive a TV station in your area. The channel number will appear on the screen for about 4 seconds.

Setting the language

- 1** Press **VCR MENU**. If you use the unit for the first time and press **VCR MENU**, instead of the main menu screen on the right the "SYSTEM SET UP" menu screen in step 2 may appear.
 
- 2** Press **SET +** or **-** to select "LANGUAGE", then press **ENTER**.
 
- 3** Press **SET +** or **-** to select the desired language: English (ENGLISH), Spanish (ESPAÑOL) or French (FRANCAIS), then press **ENTER**.
 
- 4** Press **VCR MENU** until the MENU screen is cleared.
 

Auto clock setting

- 1 Connect the Antenna or Cable system.
 - If you use a cable box, turn it on.
- 2 Plug the AC Power cord to the AC outlet.
- 3 Make sure the DVD/VCR is turned off.
 - If you press **POWER**, the Auto Clock set is not programmed.
- 4 Wait at least three minutes and press **POWER**.
- 5 Press **CALL** to check the clock setting on the on screen display.

DISPLAY/CALL
- 6 If the clock is not set, check the antenna condition. The auto clock may not function properly if the reception condition is not good.

Manual clock setting

- 1 Press **VCR MENU**.

SET UP
VCR MENU
- 2 Press **SET +** or **-** to select "SYSTEM SET UP", press **ENTER**.
- 3 Press **SET +** or **-** to select "CLOCK SET", then press **ENTER**.
- 4 Press **SET +** or **-** to set the month, then press **ENTER**.
- 5 Set the day, year and time as in step 4.
- 6 After setting the clock, date and time starts functioning automatically.

TV/CATV selection

- 1 Press **VCR MENU**.

SET UP
VCR MENU

Press **SET +** or **-** to select "CH SET UP", then press **ENTER**.
- 2 Press **SET +** or **-** to select "TV/CATV".
- 3 Press **ENTER** to select the TV or CATV mode. The arrow indicates the selected mode.

TV - VHF/UHF channels
CATV - CABLE TV channels
- 4 Press **VCR MENU** until the menu screen is cleared.

SET UP
VCR MENU

Setting channels automatically

- 1 Repeat left step 1 and press **SET +** or **-** to select "AUTO CH MEMORY".
- 2 Press **ENTER**.

Auto tuning will begin. The channel display will count up and when finished, the screen returns to normal.

To ADD/DELETE channels

- 1 Repeat the step 1 on page 27. Then press **SET +** or **-** to select the "ADD/DELETE" and press **ENTER**.
- 2 To Add or Delete desired channels
 - 1 Press **Number buttons** or **SET +** or **-** to select a channel number you want to add or delete.
 - 2 To add channels
Press **ENTER** until "ADD" appears on the screen.
To delete channels
Press **ENTER** until "DELETE" appears on the screen. The channel number will blink.
- 3 Repeat **1** to **2** to add or delete other channel.

Playback

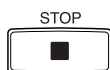
1 Load a prerecorded tape (When loading a cassette tape without the erase prevention tab, playback will start automatically).

2 To start playback



Press **PLAY**.
Playback will start. "▶" will appear on the screen for about 4 seconds.

To stop playback



Press **STOP** once.
The tape will stop but remain fully loaded and ready to play.
"■" will appear on the screen for about 4 seconds.

Rewind or forward the tape

Stop the playback or recording via **STOP** on remote.

To rewind the tape:



Press **REW**.

To forward the tape:



Press **FWD**.

To discontinue the tape-winding, press **STOP**. To switch to playback directly (without **STOP**), press **PLAY**.

Forward/Reverse picture search mode

When the tape is being wound, you can switch to picture search mode (see next page). To do this, press **REW** or **FWD** and hold it down. The unit will resume the tape advance or rewinding as soon as the button is released.

Picture search

Reverse picture search function

Press **REW** once or twice during playback.



Forward picture search function

Press **FWD** once or twice during playback.

To return to playback, press **PLAY**.



Still picture

Press **PAUSE/STILL** during playback.

To resume normal playback, press **PLAY** or **PAUSE/STILL**.

PAUSE/STILL



Slow motion

During playback press **SLOW**.

To return to playback, press **PLAY** or **SLOW**.

SLOW



Frame by frame picture

Press **PAUSE/STILL** during playback.

Press **SLOW** repeatedly: The picture advances frame by frame.

To return to playback, press **PLAY** or **PAUSE/STILL**.

PAUSE/STILL SLOW



Recording a TV program

1 Load a cassette tape with the erase prevention tab intact. The DVD/VCR will automatically turn on.

2 Press **SP/SLP** to select the desired tape speed SP or SLP.



The tape counter and SP or SLP will appear on the screen for about 4 seconds.

3 Select "TV" or "CATV" to the appropriate position.

TV - VHF/UHF channels
CATV - CABLE TV channels

4 Press Number button or **CH** ^/∇ to select the channel to be recorded.

1-9 Press **0** twice and then **1-9** as required.

Example: To select 2, Press "002".

10-12 Press **0** first and then the remaining 2 digits in order from left to right.

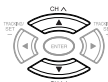
Example: Press **012** for "12".

13-99 Press 2 digits in order.

Example: Press **22** for "22".

100-125 Press the 3 digits in order.

Example: Press **110** for "110".



5 Press **REC**.



"●" will appear on the screen for about 4 seconds and "●" will appear on the display window.

To stop recording

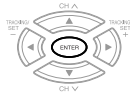
Press **STOP** to stop recording.



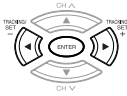
"■" will appear on screen for about 4 seconds.

Timer recording

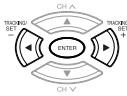
- 1** Press **VCR MENU**.



- 2** Press **SET +** or **-** to select one of the program line, then



- 3** Press **SET +** or **-** to select the date, then press **ENTER**.



- 4** Set the start time, end time, channel and tape speed as

- 5** To enter other programs, repeat step 2 through 4.



• To return to the normal screen, press **VCR MENU** twice.

- 6** Press **TIMER REC**. The timer symbol (⏰) will appear on the display and the VCR stands by for recording.



At the same time, VCR mode will change to DVD mode automatically. You can use DVD even if the VCR is in the Timer recording mode.
If you do not use the DVD, turn the power off.

One-touch Timer Recording (OTR)

- 1** Load a cassette tape with the erase prevention tab intact.

The VCR will automatically turn on.

- 2** Press **SP/SLP** to select the desired tape speed SP or SLP.

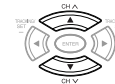


The tape counter and SP or SLP will appear on the screen for about 4 seconds.

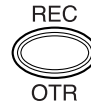
- 3** Set "TV" or "CATV" option to the appropriate position.

TV - VHF/UHF channels
CATV - CABLE TV channels

- 4** Press Number button or **CH ^/∇** to select the channel to be recorded.



- 5** Press **OTR**. Recording begins. Press the button again to stop recording after 30 minutes. Each additional press of **OTR** will increase recording time as shown in the chart below, up to a maximum of 5 hours.



The OTR and recording time will appear on the screen for about 4 seconds. And, "●" will keep blinking in the display.

To cancel OTR

Press **STOP** or turn off the power.

"■" will appear on screen for about 4 seconds.

Note:

If you wish to watch the DVD playback during OTR or standard recording, press **DVD/VCR** to change to DVD mode and perform the DVD playback.

Basic playback (DVD)

Preparation:

- Turn ON the TV and set to the video input mode.
- Press **DVD/VCR** to select the DVD mode. (The DVD indicator will light.)

- 1** Press **OPEN/CLOSE**.
The disc tray will open.
- OPEN/
CLOSE
- 

- 2** Place a disc onto the tray.
Hold the disc, position it with the printed label side up, align it with the guides, and place it in its proper position.

- 3** Press **PLAY** or **OPEN/CLOSE**.
The disc tray closes automatically.
On the TV-screen, ▲ changes to "Reading" and then playback commences.
- A menu screen will appear on the TV screen, if the disc has a menu feature.
In this case, press ▲, ▼, ◀, ▶ or **ENTER** for activate a menu feature.



- 4** Press **STOP** to end playback.
- The unit records the stopped point, depending on the disc. "■" appears on the screen. Press **PLAY** to resume playback (from the scene point).
 - If you press **STOP** again or unload the disc ("■" appears on the screen.), the unit will clear the stopped point.



- 5** To stop the playback, press **STOP**.
Then press **OPEN/CLOSE**.
The disc tray opens.
Remove the disc and press **OPEN/CLOSE** then press **POWER** (I/⏻).
The disc tray closes automatically and unit turns off.



Fast Forward Playback

Press **FWD** during normal playback.
Each press of the **FWD** button will increase the speed of the search x2, x4, x8, x20.

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



Review Playback

Press **REW** during normal playback.
Each press of the **REW** button will increase the speed of the search x2, x4, x8, x20.



Still Playback

Press **PAUSE/STILL** during normal playback to pause playback.

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



Frame Advance

Press **PAUSE/STILL** during still playback.
One frame is advanced each time you press **PAUSE/STILL**.
To resume normal playback, press **PLAY**.



Slow-motion Playback

Press **SLOW** during normal playback or still playback.
Each press of **SLOW** will change the speed of the slow x1/2, x1/4, x1/6, x1/7.

- To resume normal playback, press **PLAY**.
- To resume the still playback, press **PAUSE/STILL**.



Locating a chapter or track

Press **SKIP**(▶▶) Forward or **SKIP**(◀◀) Reverse during playback to locate a chapter that you want to watch. Each time you press the button, a chapter or track is skipped.

— INDEX/SKIP



SKIP/INDEX +



Remote control basics

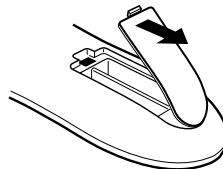
- Press **POWER** (|/⏻) to turn the DVD/VCR on or off.
- Select your desired operating mode (DVD or VCR) using **DVD/VCR**. (DVD or VCR indicator on the front panel will show you which mode is selected.)
- Press **CH ^** or **CH v** to move through the channels one channel at a time.
- The **CH ^/v** (▲/▼) and **SET +/-** (◀/▶) are also used to navigate on-screen menu system.
- You can directly access specific channels using **Number buttons**.
- Each press of **DVD/VCR** on the remote control, switches the screen between the VCR screen (VCR mode) and the DVD screen (DVD mode).

Operation

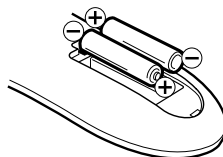
- Aim the remote control at the remote sensor and press control buttons to operate.
- Operate the remote control within 30° angle on either side of the remote sensor, up to a distance of Approx. 7 meters.

Inserting Batteries

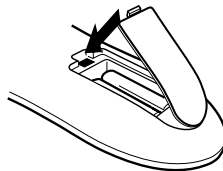
- 1 Open the battery compartment cover in the direction of the arrow.



- 2 Install two "AAA" batteries (supplied), paying attention to the polarity diagram in the battery compartment.



- 3 Replace the compartment cover.



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