

SHARP®

VCR/DVD COMBINATION

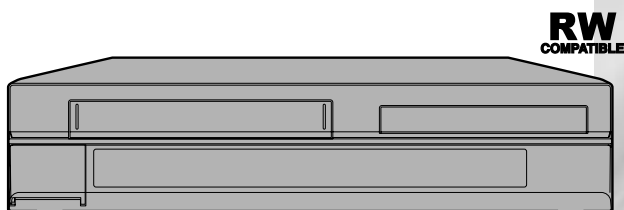
MODEL

DV-NC150U

OPERATION MANUAL

Please read this Operation Manual carefully before using your VCR/DVD COMBINATION.

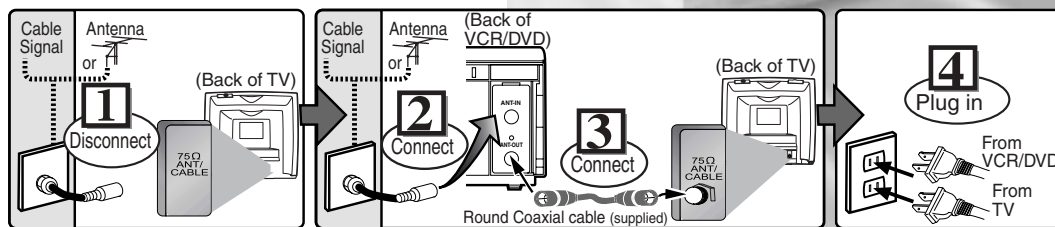
INSTRUCCIONES EN ESPAÑOL INCLUIDAS.



The region number for this VCR/DVD is 1.



Basic TV Connection



5 Please refer to "Connections" on page 7.

Precautions

Setup

VCR Functions

DVD Functions

Information

Español

For future reference, record the serial number (located on the rear of the Unit) in the space provided.

Model No.: DV-NC150U

Serial No.: _____

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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

ATTENTION: POUR ÉVITER LES CHOC ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION:

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



This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.



This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

“WARNING—FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user’s authority to operate this equipment.”

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

INFORMATION

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.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Este aparato digital de la Clase B cumple con la norma ICES-003 de Canadá.

NOTE to CATV system installer:

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

CAUTION:

THIS UNIT IS A CLASS 1 LASER PRODUCT.

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


AS THE LASER BEAM USED IN THIS UNIT IS HARMFUL TO THE EYES, DO NOT ATTEMPT TO DISASSEMBLE THE CABINET.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

Products that have earned ENERGY STAR® are designed to protect the environment through superior energy efficiency.

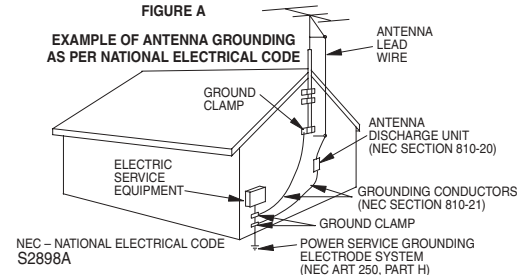
Important Safeguards

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
 2. Retain Instructions- The safety and operating instructions should be retained for future reference.
 3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
 4. Follow Instructions - All operating and use instructions should be followed.
 5. Cleaning - Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. **EXCEPTION:** A product that is meant for uninterrupted service and, that for some specific reason, such as the possibility of the loss of an authorization code for a CATV converter, is not intended to be unplugged by the user for cleaning or any other purpose, may exclude the reference to unplugging the appliance in the cleaning description otherwise required in item 5.
 6. Attachments - Do not use attachments not recommended by the video product manufacturer as they may cause hazards.
 7. Water and Moisture- Do not use this video product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
 8. Accessories - Do not place this video product on an unstable cart, stand, tripod, bracket, or table. The video product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
- PORTABLE CART WARNING
(Symbol provided by RETAC)



S3125A
9. Transportation - A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
 10. Ventilation - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the video product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the video product on a bed, sofa, rug, or other similar surface. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
 11. Power Sources - This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
 12. Grounding or Polarization - This video product 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.
 13. 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.
 14. Outdoor Antenna Grounding - If an outside antenna or cable system is connected to the video product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code,

ANSI/NFPA No. 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. (Fig. A)



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

Table of Contents

Precautions

■ Important Safeguards	3
Symbol Used in This Manual	4
Supplied Accessory	4
Service	5
Copy Protection	5
Recommended Measures for Optimum Picture Excellence	5
Notice for progressive scan outputs	5
No Fingers or Other Objects Inside	5
Warning of Dew Formation	5
Others	5
Maintenance	6

Setup

■ About the Video Cassettes and Discs	7
Playable Video Cassettes	7
Playable Discs	7
Unplayable Discs	7
■ Connections	7
RF Output Channel	7
Hint for Cable Box or Satellite Box	8
Connection to an Audio System	8
Connection to a TV	9
Front & Rear Terminals	9
■ About the Remote Control and Front Panel	10
■ VCR/DVD Switching	11
■ Preparation for Use	12
Turn on the unit for the first time	12
Clock Set Up	12

VCR Functions

■ Playback	13
■ Recording & OTR (One Touch Recording)	13
■ Other Operations	13
■ On-Screen Operations	14
■ Recording Features	14
Timer Recording	14
Hint for Timer Recording	15
Copying a Video Tape	15
■ MTS System (Multi-Channel Television Sound)	15

■ Special Features	16
Time Search / Index Search / Auto Repeat	16

DVD Functions

■ Playback	17
■ MP3 Playback	19
■ The On-Screen Display	19
■ Search Function	20
Track Search / Title/Chapter Search / Time Search	20
■ Marker Setup	20
■ Repeat / Random / Programmed Playback	21
Repeat Playback / Repeat A-B Playback / Random Playback / Programmed Playback	21
■ Special Settings	22
Subtitle Language / Audio Language / Camera Angle / Stereo Sound Mode	22
Black Level Setting / Virtual Surround	23
■ DVD Set Up	23
LANGUAGE Setting	24
DISPLAY Setting	24
AUDIO Setting	25
PARENTAL Setting	26
To return the All Selections of SET UP (except for PARENTAL) to the Default Setting	26


Information


■ Language List	27
■ Specifications	28
Service Information	28
■ Troubleshooting Guide	29
Español	30

Importantes Medidas de Seguridad y Precauciones	31
Conexiones	32
Instalación de las pilas del mando a distancia	32
Conmutación VCR/DVD	32
Activación de la unidad por primera vez	32
Ajuste del reloj	33
Reproducción de la grabadora de vídeo	33
Reproducción de DVD/CD	33
Mando a distancia	34


Symbol Used in This Manual

The following symbols appear in some headings and notes in this manual.


 : Description refers to playback or recording of video cassette tapes.

 : Description refers to playback of the VR mode (Video Recording format).
*The VR mode (Video Recording format) is a recording mode to enjoy editing the program or "manual mode" for recording in desired resolution and time.

 : Description refers to playback of DVD-Video discs.

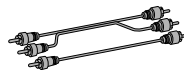
 : Description refers to playback of Audio CDs.

 : Description refers to playback of MP3 files.

 : Indicates DVD Setup menus also accessible from the QUICK SETUP Menu. (Refer to page 23.)

Supplied Accessory

- Remote control (9HSNA276UD) with two AA batteries
- Round Coaxial cable (9HSWPZ0901TM003)
- Audio cable/ Video cable (9HSWX1E56B5-001)
- Operation Manual (9HS1VMN20342)



Location and Handling

Location and Handling

- Do not cover or place the VCR/DVD in enclosed spaces to prevent excessive temperature build up.
- Do not place the VCR/DVD in direct sunlight, or near heat sources.
- Depending on the use environment, the temperature of the VCR/DVD may increase slightly. This is not a malfunction.
- Keep the VCR/DVD away from strong magnetic objects.
- Do not place any object containing water or other liquids on the VCR/DVD. In the event that liquid should enter the cabinet, unplug the VCR/DVD immediately and contact the retailer or service centre approved by SHARP immediately.
- Do not remove the VCR/DVD cabinet. Touching parts inside the cabinet could result in electric shock and/ or damage to the VCR/DVD. For service and adjustment inside the cabinet, call a qualified dealer or service centre approved by SHARP.

Nonuse Periods

Location and Handling

- When the VCR/DVD is not being used, switch the VCR/DVD to the Standby mode.
- When left unused for a long period of time, the VCR/DVD should be unplugged from the household AC outlet.
- Do not place the VCR/DVD in direct sunlight, or near heat sources.

Copy Protection

This Unit supports Macrovision copy protection.

On DVD discs that include a copy protection code, if the contents of the DVD disc are copied using a VCR, the copy protection code prevents the videotape copy from playing normally.

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, 4,819,098 and 4,907,093 licensed for limited viewing uses only.

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.

Notice for progressive scan outputs

Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture. In case of 525 progressive scan picture problems, it is recommended that the user switch the connection to the 'standard definition' output. If there are questions regarding our TV set compatibility with this model 525p DVD player, please contact our customer service center.

No Fingers or Other Objects Inside

Do not put your fingers or objects on the disc tray or in the cassette compartment.

Warning of Dew Formation

Moisture may form inside the VCR/DVD under the following conditions:

- Immediately after a heater is turned on.
- In a steamy or humid room.
- When the VCR/DVD is suddenly moved from a cold to warm environment.

If moisture forms inside this VCR/DVD, it may not operate properly or damage the video cassette. In such case, turn on the power and wait for more than two hours for the moisture to evaporate.

Others

It is the intent of Sharp that this product be used in full compliance with the copyright laws of the United States and that prior permission be obtained from copyright owners whenever necessary.

"Licensed under one or more of U.S. Pat. 4,972,484, 5,214,678, 5,323,396, 5,530,655, 5,539,829, 5,544,247, 5,606,618, 5,610,985, 5,740,317, 5,777,992, 5,878,080, or 5,960,037."

A NOTE ABOUT RECYCLING

This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with your local recycling regulations.

Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulations concerning chemical wastes.

Make your contribution to the environment!!!

- Used up batteries do not belong in the dust bin.
- You can dispose of them at a collection point for used up batteries or special waste. Contact your council for details.



Maintenance

SERVICING

1. Please refer to relevant topics in the Troubleshooting Guide on page 29 before returning the product.
2. Do not attempt to service this Unit yourself. Instead, unplug it and contact a Sharp Authorized Service Center for inspection. (See **Service Information** on page 28.)
3. Be sure the service technician uses authorized replacement parts or their equivalents. Unauthorized parts may cause fire, electrical shock, or other hazards.
4. Following any service or repair, be sure the service technician performs safety checks to certify that this Unit is in safe operating order.

CLEANING THE CABINET

- Use a soft cloth slightly moistened with a mild detergent solution. Do not use a solution containing alcohol, spirits, ammonia or abrasive.

CLEANING DISCS

- When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out. Do not wipe in a circular motion.
- Do not use solvents such as benzine, thinner, commercially available cleaners, detergent, abrasive cleaning agents or antistatic spray intended for analogue records.

RECOMMENDED MEASURES FOR OPTIMUM PICTURE EXCELLENCE

This Unit is a precision device constructed using extremely accurate technology.

- The disc cannot be played if the disc drive component is worn out or if the internal pick up lens is dirty.
- If this unit still does not perform properly although you refer to the relevant sections and to Troubleshooting Guide on page 29, the laser optical pickup unit may be dirty. Consult a Sharp Authorized Service Center for inspection and cleaning of the laser optical pickup unit.

DISC HANDLING

- Handle the discs so that fingerprints and dust do not adhere to the surfaces of the discs.
- Always store the disc in its protective case when it is not used.

AUTO HEAD CLEANING

- Automatically cleans video heads as you insert or remove a cassette, so you can see a clear picture.
 - Playback picture may become blurred or interrupted while the TV program reception is clear. Dirt accumulated on the video heads after a long period of use, or the usage of rental or worn tapes can cause this problem. If a streaky or snowy picture appears during playback, the video heads in your VCR/DVD may need to be cleaned.
1. Please visit your local Audio/Video store and purchase a good quality VHS Video Head Cleaner.
 2. If a Video Head Cleaner does not solve the problem, please call our help line mentioned on page 28 to locate a Sharp Authorized Service Center.

Hint

- Remember to read the instructions along with the video head cleaner before use.
- Clean video heads only when problems occur.

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 should be connected to the grounding system of the building, as close to the point of cable entry as practical.

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

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

Setup

About the Video Cassettes and Discs

Playable Video Cassettes

Use only cassettes marked **VHS** with this unit.

Playable Discs

Playable discs	Mark (logo)	Region code	Recorded signals	Disc size	Disc types
DVD-Video * 1,2,4,6		or	Digital video (MPEG2)	12 cm or 8cm	 Example Title 1 Chapter 1 Chapter 2 Chapter 3 Chapter 4 Chapter 1 Chapter 2 Title 2
DVD-R DVD-RW * 1,2,3,4,5,6	 	—			
DVD+R DVD+RW * 1,2,3,4,5,6	 	—			
Audio CD * 4,6		—	Digital audio or MP3	12 cm or 8cm	 Example Track 1 Track 2 Track 3 Track 4 Track 5 Track 6
CD-R CD-RW * 4,5,6	 				 Example Group 1 Track 1 Track 2 Track 3 Track 4 Track 5 Track 6 Group 2

If you cannot play back a disc which bears one of the marks above, check the following notes.

- *1: This unit conforms to the NTSC color system. Discs recorded in other color systems such as PAL cannot be played back.
- *2: Certain DVD-Video discs do not operate as described in this manual due to the intentions of the disc's producers.
- *3: This label indicates playback compatibility with DVD-RW discs recorded in VR mode (Video Recording Format).

This player cannot play the DVD-RW that supports CPRM (Contents Protection for Recordable Media).

- *4: Scratched or stained discs may not be played back.
- *5: Some discs cannot be played back because of incompatible recording conditions, characteristics of the recorder or special properties of discs.
- *6: You can play back discs which bear the marks above. If you use nonstandardized discs, this unit may not play them back. Even if they are played back, the sound or video quality will be compromised.

Unplayable Discs

- On the following discs, only the sound can be heard (picture cannot be viewed).
CDV, CD-G
- NEVER play back the following discs. Otherwise, malfunction may result!
DVD-RAM, CD-I, Photo CD, Video CD, DVD with region codes other than 1 or ALL, DVD-ROM for personal computers, CD-ROM for personal computers
- On the following disc, the sound MAY NOT be heard.
Super Audio CD
- Any other discs without compatibility indications.

Hint

- Only the sound recorded on the normal CD layer can be delivered. The sound recorded on the high density Super Audio CD layer cannot be delivered.

Connections

Please refer to "Basic TV Connection" on the front page before you use this unit.

RF Output Channel

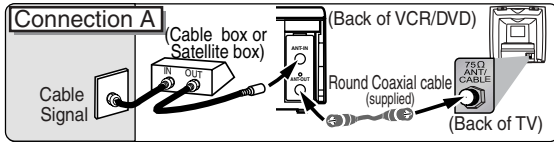
If channel 3 is already occupied for broadcasting,

- 1) Set your TV to channel 4.
- 2) Insert a pre-recorded tape into this unit.
- 3) Press the OUTPUT button on the VCR/DVD so that the VCR OUTPUT light is lit.
 - If "VCR" light does not appear on the display of this unit, press the VCR/TV button on the remote control.
- 4) Press the PLAY button once.
- 5) After a few seconds, press the PLAY button on the VCR/DVD for 3 seconds.
 - The RF output channel will change to channel 4 from channel 3 and you will see a playback picture. In this case, "ch04" will appear on the front panel.
 - When a picture does not appear on the TV screen, repeat step 4.
- 6) Press the STOP button to stop playback.

Hint

- The RF output channel may not change when you adjust tracking during playback. In this case, stop the playback, and start the playback again. After that, press the PLAY button on the VCR/DVD for 3 seconds again.

Hint for Cable Box or Satellite Box

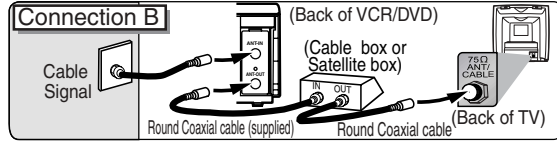


Select this connection when you want to view or record a scrambled channel. With this connection, channels cannot be changed on the VCR/DVD. You can view or record ONLY the channels you have selected on the cable box or the satellite box.

- While you are recording, only the recorded channel can be viewed.

To select channels of the cable box or satellite box

- 1) Turn on the VCR/DVD by pressing the POWER button, and then, press the VCR/TV button. The "POWER" and "VCR" lights on the front panel will appear. Then, press the SKIP/CH. (▲/▼) buttons to select channel 3 or 4 (the same channel as the output channel of the cable box or satellite box).
- If you use the channel 4, you need to change the VCR/DVD's RF output to channel 4. Refer to "RF Output Channel".
- 2) At the TV, select channel 3 or 4 (the same channel as you have selected at step 1).
- 3) At the cable box or satellite box, select the channel you want to view or record.



Select this connection when you want to change channels on the VCR/DVD. With this connection, you may watch one channel while recording another.

- You may not view or record a scrambled channel.

To select channels of the cable box or satellite box

- 1) At the cable box or satellite box, select channel 3 or 4 (the same channel as the VCR/DVD's RF output channel.)
- Refer to "RF Output Channel".
- 2) At the TV, select the same channel as the output channel (3 or 4) of the cable box or satellite box.
- 3) Turn on the VCR/DVD by pressing the POWER button, and then, press the VCR/TV button. The "POWER" and "VCR" lights on the front panel will appear. Then, select the channel you want to view or record.

To play back a tape

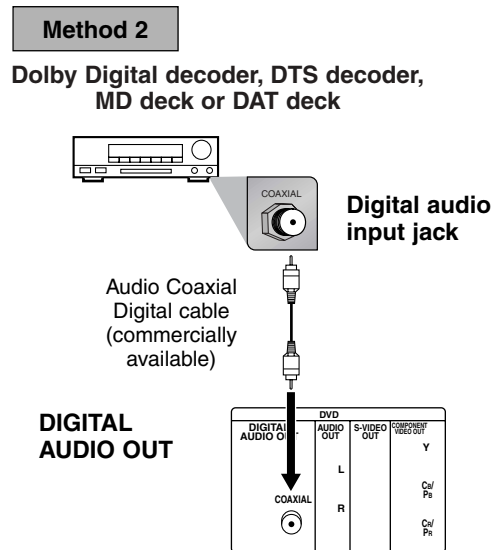
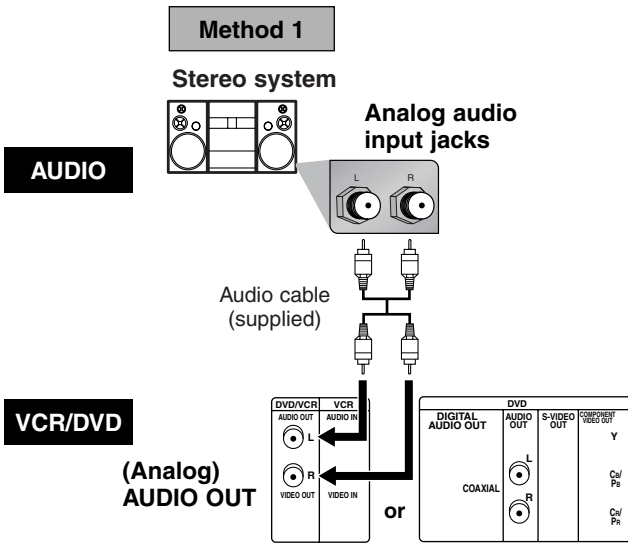
Follow the steps 1) to 2) above. Then, play back a tape.

- Refer to "Playback" on page 13.

To view one channel while recording another

- 1) While you are recording on the VCR/DVD, press the VCR/TV button so that the "VCR" light disappears on the VCR/DVD.
- 2) At the cable box or satellite box, select the channel you want to view.

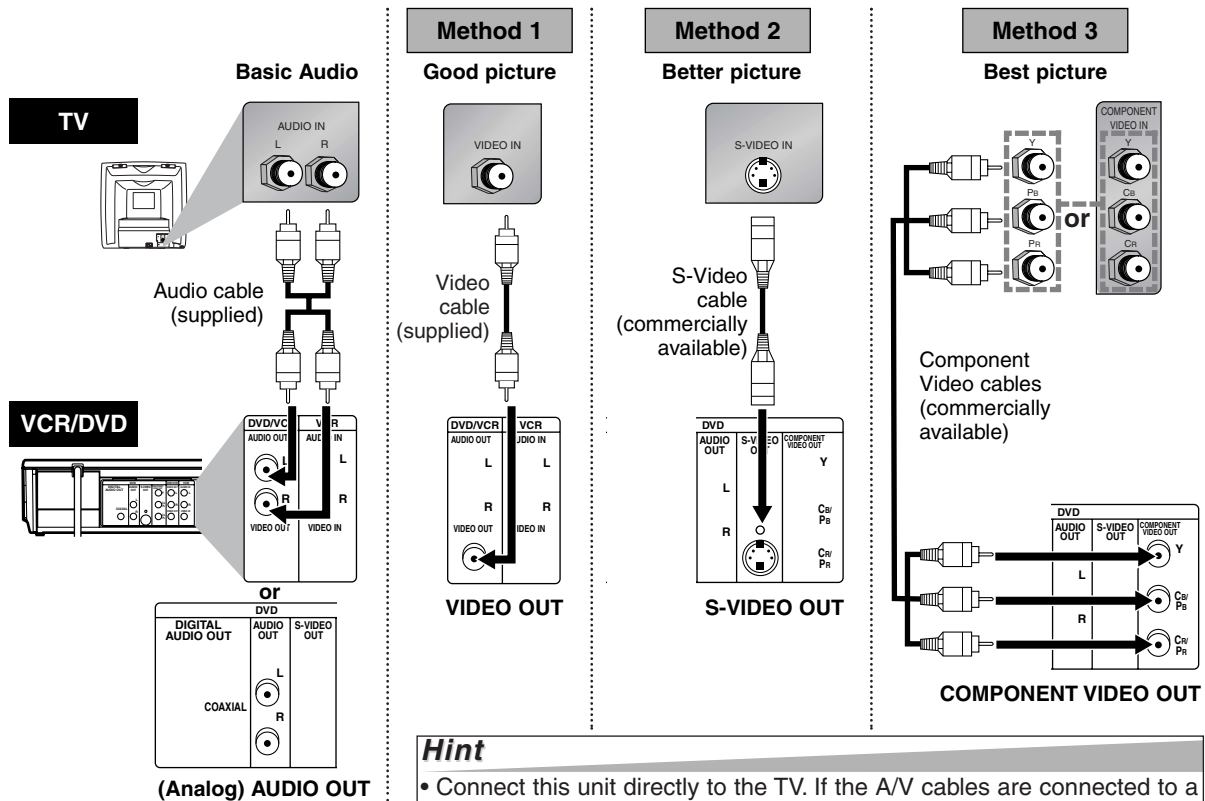
Connection to an Audio System



Hint

- If the output is Dolby Digital-encoded audio, connect a Dolby Digital decoder and set "DOLBY DIGITAL" to "BITSTREAM" for the AUDIO setting in the setup mode. (Refer to pages 23 and 25.)
- If the output is DTS-encoded audio, connect a DTS decoder and set "DTS" to "BITSTREAM" for the AUDIO setting in the setup mode. (Refer to pages 23 and 25.)
- The audio source on a disc in a Dolby Digital 5.1 channel surround format cannot be recorded as digital sound by an MD or DAT deck.
- Unless connected to a Dolby Digital and/or DTS decoder, set "DOLBY DIGITAL" and "DPCM" or "DTS" to "OFF" for audio output in the setup mode. Playing a DVD using incorrect settings may generate noise distortion, and may also damage the speakers. (Refer to pages 23 and 25.)
- By hooking this unit up to a Multi-channel Dolby Digital decoder, you can enjoy high-quality Dolby Digital 5.1 channel surround sound as heard in the movie theaters.

Connection to a TV



• The COAXIAL, DVD AUDIO OUT, S-VIDEO OUT, and COMPONENT VIDEO OUT jacks are only useful in DVD mode.

If your TV is compatible with 480p progressive scanning and you want to enjoy that high quality picture:

You must select the connection Method 3 above and progressive scanning mode. To set the mode, set "PROGRESSIVE" to "ON" in the DISPLAY menu so that "P.SCAN" will appear on the display of this unit. (The progressive scanning is not available in the VCR mode.) See page 23 for more details.

If your TV is not compatible with progressive scanning:

Use this unit in interlace mode. Make sure that no "P.SCAN" is on the display of this unit. If so, set "PROGRESSIVE" to "OFF" in the DISPLAY menu so that "P.SCAN" on the display of this unit will disappear.

Front & Rear Terminals

DVD ANALOG AUDIO OUT jacks

Connect the supplied audio cables here through the Audio In jacks of a television or other audio equipment. (DVD only)

DVD/VCR AUDIO OUT jacks

Connect the supplied audio cables here through the audio In jacks of a television or other audio equipment.

AUDIO IN jacks

Connect audio cables coming from the audio out jacks of a camcorder, another VCR, or an audio source here.

ANT IN jack

Connect your antenna or cable box here.

COAXIAL jack

Connect an optional coaxial digital audio cable here through the coaxial digital audio in jack of a decoder or audio receiver. (DVD only)

S-VIDEO OUT jack

Connect an optional S-Video cable here through the S-video in jack of a television. (DVD only)

COMPONENT VIDEO OUT jacks

Connect optional component video cables here through the component video in jacks of a television. (DVD only)

DVD/VCR VIDEO OUT jack

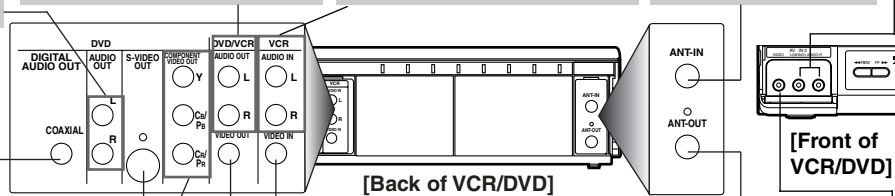
Connect the supplied yellow video cable here through the TV's video in jack.

VIDEO IN jack

Connect a cable coming from the video out jack of a camcorder, another VCR, or an audio-visual source (laser disc player, video disc player, etc.) here.

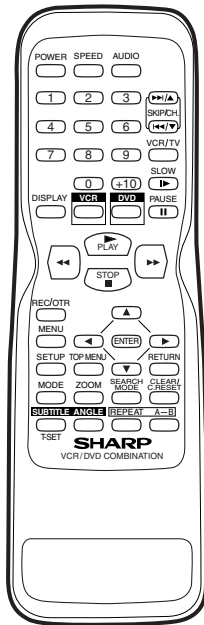
ANT OUT jack

Connect the supplied Round Coaxial cable to the antenna input jack on your TV.



About the Remote Control and Front Panel

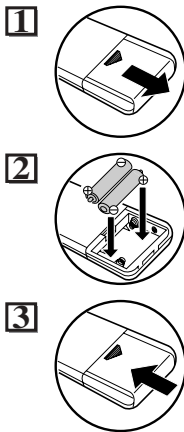
Remote Control



Setup

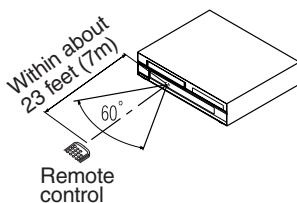
Installing the Batteries for the Remote Control

Install two AA batteries (supplied) matching the polarity indicated inside battery compartment of the remote control.



Keep in mind the following when using the remote control:

- Make sure that there is no obstacle between the remote and the remote sensor on the unit.
- Use within the operating range and angle, as shown.

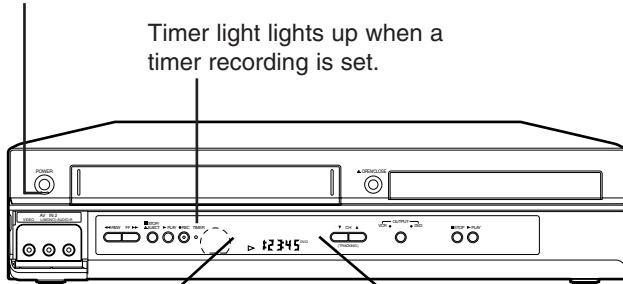


Remote control

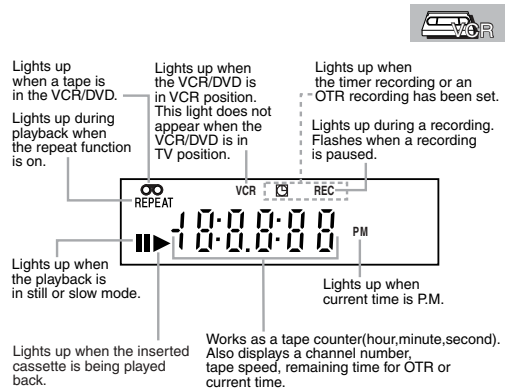
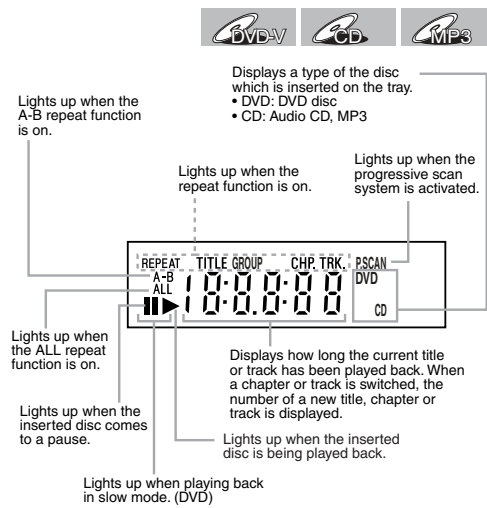
Button (Alphabetical order)	DVD mode		VCR mode
	Disc/Tape	DVD	MP3
1 2 3 4 5 6 7 8 9 0 G10		• To select chapter or title directly	• To select track directly
⏪ ⏩	• To search forward/backward through a disc • To begin slow forward/reverse playback during the pause mode	• To search forward/backward through a disc	• To forward/backward a tape
⬅ ➡ ENTER	• To move the cursor and determine its position	• To move the cursor and determine its position	• To select an item on the VCR Menu • To advance to the next VCR Menu • To go back one step during clock and timer setting
A-B	• To repeat between your chosen point A and B	• To repeat between your chosen point A and B (CD)	—
ANGLE	• To select camera angles on a disc	—	—
AUDIO	• To select audio languages on a disc	• To select STEREO, L-CH or R-CH (CD)	—
CLEAR/C.RESET	• To clear the markers • To clear the numbers entered incorrectly	• To clear the markers (CD) • To remove status number in program input • To clear the numbers entered incorrectly	• To exit the VCR Menu • To reset the tape counter
DISPLAY	• To display the current disc mode	• To display the current disc mode	• To display the current time, tape counter, and channel
DVD	• To select the DVD output mode • To activate the remote control in DVD mode	• To select the DVD output mode • To activate the remote control in DVD mode	—
MENU	• To call up the Menu on a disc	• To call up the MP3 menu (MP3)	• To call up the VCR Menu
MODE	• To set black level on/off • To set virtual surround on/off • To set Rapid Play on/off	• To arrange the playing order or play randomly • To set virtual surround on/off	—
PAUSE	• To pause disc playback • To advance playback one frame at a time	• To pause disc playback	• To pause tape playback or recording • To advance playback one frame at a time
PLAY	• To begin disc playback	• To begin disc playback	• To begin tape playback
POWER	• To turn the unit on or off	• To turn the unit on or off	• To turn the unit on or off
REC/OTR	—	—	• To start a recording or One Touch Recording
REPEAT	• To play a chapter or title repeatedly	• To play a track or disc repeatedly (CD) • To play a track, group or disc repeatedly (MP3)	—
RETURN	• To return to the previous operation on the DVD setup menu	• To return to the previous operation on the DVD setup menu	—
SEARCH MODE	• To search chapter, title or time • To rapidly return to a location of disc • Search the markers.	• To search track • To search time (CD) • To rapidly return to a location of disc • Search the markers. (CD)	• To call up the index or time search menu
SETUP	• To call up the DVD setup menu	• To call up the DVD setup menu	—
SKIP/CH. SKIP/CH.	• To skip chapters	• To skip tracks	• To change channels • To adjust the tracking manually during playback
SLOW	—	—	• To view the tape in slow motion
SPEED	—	—	• To select the recording speed
STOP	• To stop playback	• To stop playback	• To stop playback or recording
SUBTITLE TSET	• To select subtitles on a disc	—	• To put the VCR into standby mode for a timer recording
TOP MENU	• To call up the Top Menu on a disc	• To return to the top file of the highest hierarchy in the program and MP3 menu (MP3)	—
VCR	—	—	• To select the VCR output mode • To activate the remote control in VCR mode
VCR/TV	• To select DVD position or TV position	• To select CD/MP3 position or TV position	• To select VCR position or TV position
ZOOM	• To magnify the part of picture (x2/x4)	—	—

Front Panel Display

Lights up when power is on.



---	No disc inserted / cannot read disc
OPEN	Opening the tray
CLOSE	Closing the tray
Load	Loading the disc
▶ 0:00:00	When a disc or tape is being played back



Setup

VCR/DVD Switching

Because this product is a combination of a VCR and a DVD player, you must select first which component you wish to operate with the OUTPUT button.

VCR MODE

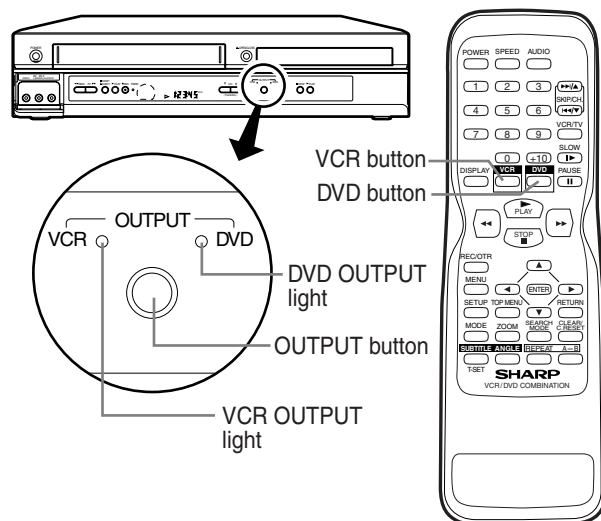
Press the **VCR button** on the remote control.
(Verify that the VCR OUTPUT light is lit.)

DVD MODE

Press the **DVD button** on the remote control.
(Verify that the DVD OUTPUT light is lit.)

Hint

- Pressing only the **OUTPUT button** on the front panel **DOES NOT** switch the mode of the remote control. You **MUST** select the correct mode on the remote control.



Preparation for Use

Turn on the unit for the first time



1

Turn on the TV and set it to channel 3.

- If channel 3 is already occupied for broadcasting, see "RF Output Channel" section.

2

POWER Remote Control TV Screen

LANGUAGE SELECT

- ENGLISH [ON]
- FRANCAIS
- ESPAÑOL

3

CH 01

AUTO SET UP

Do you connect the cable from the cable box or the satellite box to the VCR/DVD's ANT IN jack?

Yes Press the MENU button to exit

- Refer to "Hint for Cable Box or Satellite Box" section on page 8.

No Please wait for a few minutes. After scanning...

- The tuner stops on the lowest memorized channel.
- You can select only the channels memorized in this unit by using the SKIP/CH. (▲/▼) buttons.
- If "AUTO SET UP" appears on the TV screen again, check the cable connections. Then, press the ► button once again.

Hint

- Repeat these steps only if either there was a power failure or this unit has been unplugged for more than 30 seconds.

To Select a Channel

You can select a channel by directly entering channel using the Number buttons on the remote control.

Notes for using the Number buttons:

- When selecting cable channels which are higher than 99, enter channel numbers as a three-digit number. (For example: 117, press 1,1,7)
- You must precede single-digit channel numbers with a zero (For example: 02, 03, 04 and so on).

To Preset the Channel Again

- Press the MENU button until the main menu appears.
- Select "CHANNEL SET UP" by pressing the ▲ or ▼ button. Then, press the ► button.
- Select "AUTO SET UP" by pressing the ▲ or ▼ button. Then, press the ► button. After scanning, the tuner stops on the lowest memorized channel.

To Change the On-Screen Language

- Press the MENU button until the main menu appears.
- Select "LANGUAGE SELECT" by pressing the ▲ or ▼ button. Then, press the ► button.
- Select "ENGLISH", "FRANCAIS" or "ESPAÑOL" by pressing the ▲ or ▼ button. Then, press the CLEAR/C.RESET button.

Hint

- If you accidentally select Spanish or French and need English: Press the MENU button and choose SELEC. IDIOMA, or SELECTION LANGUE. Press the ► button, and select ENGLISH. Finally, press the CLEAR/C.RESET button.

Clock Set Up



1

MENU

-MENU-

TIMER PROGRAMMING
AUTO REPEAT [OFF]
CHANNEL SET UP
▶ CLOCK SET
LANGUAGE SELECT
AUDIO OUT [ON]
TV STEREO [ON]
SAP

If the clock is not set, the CLOCK SET screen appears when you press the MENU button. In this case, go to step [2].

2

CLOCK SET

MONTH DAY YEAR
03 / 15 ---

HOUR MINUTE AM/PM
05 : 40 ---

Select the current month

3

CLOCK SET

MONTH DAY YEAR
03 / 15 2004

HOUR MINUTE AM/PM
05 : 40 ---

Select the current day

4

CLOCK SET

MONTH DAY YEAR
03 / 15 2004

HOUR MINUTE AM/PM
05 : 40 ---

Select the current year

5

CLOCK SET

MONTH DAY YEAR
03 / 15 MON 2004

HOUR MINUTE AM/PM
05 : 40 ---

Select the current hour

6

CLOCK SET

MONTH DAY YEAR
03 / 15 MON 2004

HOUR MINUTE AM/PM
05 : 40 ---

Select the current minute

7

CLOCK SET

MONTH DAY YEAR
03 / 15 MON 2004

HOUR MINUTE AM/PM
05 : 40 ---

Select "AM" or "PM"

8 To exit the CLOCK SET screen.

Hint

- To go back one step, press the ◀ button (during the steps [2] to [7].)
- Your clock setting will be lost if either there is a power failure or this unit has been unplugged for more than 30 seconds.

VCR Functions

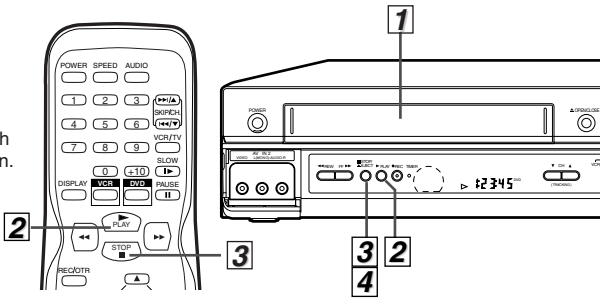
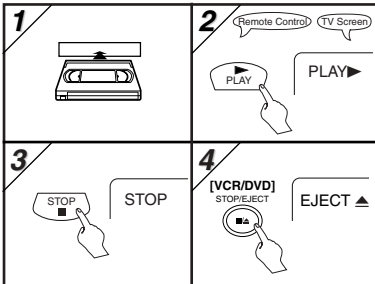
Playback

Before:

Turn on the TV and set it to channel 3.

- If channel 3 is already occupied for broadcasting, see "RF Output Channel" section.

* See page 11 to switch the VCR/DVD function.



Hint

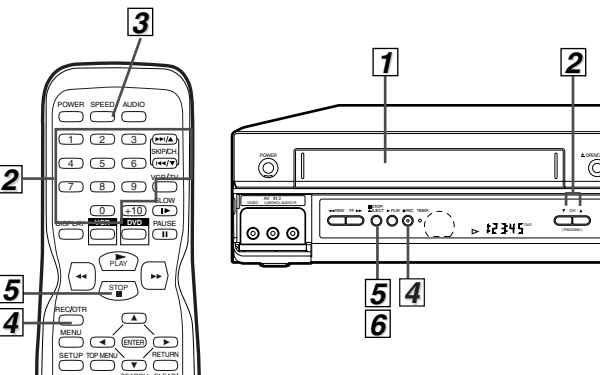
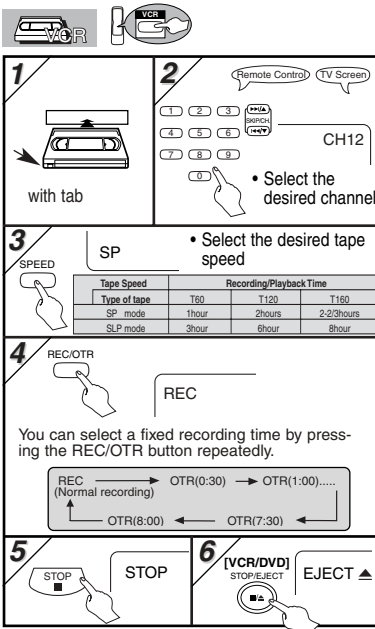
- When a tape without record tab is inserted, the VCR/DVD will start playback automatically.
- Tracking will be automatically adjusted upon playback. To adjust the tracking manually, press the SKIP/CH. (▲/▼) buttons.

Recording & OTR (One Touch Recording)

Before:

Turn on the TV and set it to channel 3.

- If channel 3 is already occupied for broadcasting, see "RF Output Channel" section.

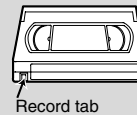


Hint

- To view one channel while recording another
 - 1) While you are recording on the VCR/DVD, press the VCR/TV button so that the "VCR" light disappears on the VCR/DVD.
 - 2) At the cable box or satellite box, select the channel you want to view.
- If you have connected the VCR/DVD to a cable box or satellite box, refer to "Hint for Cable Box or Satellite Box" section on page 8.

Accidental erasure prevention

To prevent accidental recording on a recorded cassette, remove its record tab. To record on it later, cover the hole with cellophane tape.



You **CANNOT** copy a DVD to a videotape.

To stop recording temporarily (Pause mode)

Press the **PAUSE** button.

- During the rec-pause mode, five ■ marks appear on the TV screen. Each ■ mark represents one minute.
- Press it again to resume recording.

Other Operations

To cue or review picture during playback (Picture Search)

Press the **▶▶** or **◀◀** button.

- Press it again and the VCR/DVD will search in super high speed. (in the SLP mode only)

To freeze the picture on TV screen during playback (Still mode)

Press the **PAUSE** button. Each time you press the button, the picture will be forwarded by one frame.

- If the picture begins to vibrate vertically during the still mode, stabilize the picture by pressing the SKIP/CH. (▲/▼) buttons.
- If the picture is distorted or rolling vertically, adjust the vertical hold control on your TV, if equipped.

Counter Reset

Press the **CLEAR/C.RESET** button.

To play back in slow motion

Press the **SLOW** button during playback or the still mode.

- If the noise bars appear on the TV screen, you can reduce it by pressing the SKIP/CH. (▲/▼) buttons.


Auto Rewind



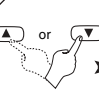
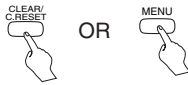
When a tape reaches its end during playback, fast-forward, or recording (except timer recording and One Touch Recording), the tape will automatically rewind to the beginning. After rewinding finishes, the VCR/DVD will eject the tape.

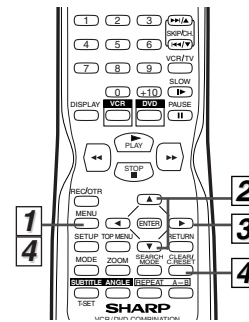
Hint

- Still/Slow/Pause mode will be automatically cancelled after 5 minutes to prevent damage to the tape and the video head.
- To return to playback from the Picture Search/Still/Slow mode, press the **PLAY** button.

On-Screen Operations




<p>1 To call up the main menu</p>  <p>-MENU-</p> <ul style="list-style-type: none"> TIMER PROGRAMMING AUTO REPEAT [OFF] CHANNEL SET UP CLOCK SET LANGUAGE SELECT 	<p>3 To decide</p>  <p>CHANNEL SET UP</p> <p>AUTO SET UP</p> <p>MANUAL SET UP</p>
<p>2 To select an item</p>  <p>-MENU-</p> <ul style="list-style-type: none"> TIMER PROGRAMMING AUTO REPEAT [OFF] CHANNEL SET UP CLOCK SET LANGUAGE SELECT 	<p>4 To exit the menu</p>  <p>CLEAR/C.RESET OR MENU</p>



Recording Features

Timer Recording

• Insert a tape with its record tab into the VCR/DVD.



1 MENU

-MENU-

- TIMER PROGRAMMING
- AUTO REPEAT [OFF]
- CHANNEL SET UP
- CLOCK SET
- LANGUAGE SELECT
- AUDIO OUT TV STEREO [ON]
- SAP

2

PROGRAM NUMBER 4

DATE --- / --- / ---

START TIME --- : --- : ---

END TIME --- : --- : ---

CHANNEL ---

REC SPEED ---

Select an empty program number

3

PROGRAM NUMBER 4

- ONCE
- DAILY
- WEEKLY

Select "ONCE", "DAILY" (Mon-Fri), or "WEEKLY"

4 Select the desired month

ONE TIME PROGRAM

PROGRAM NUMBER 4

DATE 05 / 03 / MON

START TIME --- : --- : ---

END TIME --- : --- : ---

CHANNEL ---

REC SPEED ---

Select the desired day

• You can program one year in advance.

5 Select the desired start time (hour)

ONE TIME PROGRAM

PROGRAM NUMBER 4

DATE 05 / 03 / MON

START TIME 07 : 30 : ---

END TIME --- : --- : ---

CHANNEL ---

REC SPEED ---

Select the minute

6

ONE TIME PROGRAM

PROGRAM NUMBER 4

DATE 05 / 03 / MON

START TIME 07 : 30 : ---

END TIME --- : --- : ---

CHANNEL ---

REC SPEED ---

Select "AM" or "PM"

7 Repeat the procedure in steps 5 and 6 to set the end time.

8

ONE TIME PROGRAM

PROGRAM NUMBER 4

DATE 05 / 03 / MON

START TIME 07 : 30 : PM

END TIME 08 : 30 : PM

CHANNEL ---

REC SPEED ---

Select the desired channel

• If you have connected the VCR/DVD to a cable box or satellite box as the Connection A on page 8, select the VCR to channel 3 or 4 (the RF output channel of the VCR). Then, select the desired channel at the cable box or satellite box. Leave the cable box or satellite box on for timer recording.

9

ONE TIME PROGRAM

PROGRAM NUMBER 4

DATE 05 / 03 / MON

START TIME 07 : 30 PM

END TIME 08 : 30 PM

CHANNEL 1,6

REC SPEED SP

Select the desired recording speed

• To set another program after step [9], press the ► button. Then, continue with step [2].

10

• TIMER light lights up on the front panel, and [] appears in the front panel display. The VCR/DVD will change to the DVD mode.

Hint

• To go back one step, press the ◀ button (during the steps [3] to [9].)

To Check, Correct, or Cancel a Timer Program

- 1) Press the SUBTITLE/T-SET button then, the VCR button on the remote control.
- 2) Select main menu by pressing the MENU button.
- 3) Select "TIMER PROGRAMMING" by pressing the ▲ or ▼ button. Then, press the ► button.
- 4) Select the program number which you want to check by pressing the ▲ or ▼ button. The details of the program you selected will appear on the TV screen.
 - Go to the digit you want to change by pressing the ► or ◀ button. Then, enter correct numbers by pressing the ▲ or ▼ button.
 - You may cancel the entire program by pressing the ◀ button while the program number flashes.
- 5) Press the CLEAR/C.RESET button to exit.
- 6) Press the SUBTITLE/T-SET button to return to timer stand-by mode.

To cancel a Timer Recording in progress

Press the STOP/EJECT button on the VCR/DVD.

VCR Functions

Hint for Timer Recording

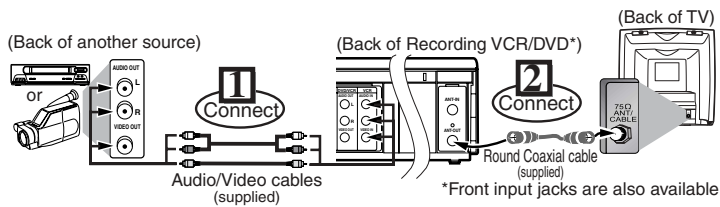
- If there is a power failure or the VCR/DVD has been unplugged for more than 30 seconds, the clock setting and all timer settings will be lost.
- If a tape is not in the VCR/DVD or does not have the record tab, the **TIMER** and **☐** lights flash and timer recording cannot be performed. Please insert a recordable tape.
- If a tape ends during timer recording, the VCR will stop, eject the tape, and switch to the DVD mode automatically as the **TIMER** and **☐** lights flash. (If the DVD power is off, the VCR will become **STANDBY** status).
- When all timer recordings are finished, the **TIMER** and **☐** lights will flash.
- When timer recordings are set, the **TIMER** and **☐** lights will appear. To use the VCR as usual until the time for the recording, press the **SUBTITLE/T-SET** button so that the **TIMER** and **☐** lights disappear. Press the **VCR/TV** button to choose the VCR position. Select either **VCR** or **DVD** mode, then continue with the other features as described in this manual.

If you want to use the DVD player during a VCR timer recording or while the **TIMER** and **☐** lights are on or flashes.

- You can use the DVD player while the **TIMER** and **☐** lights are on or flashes, or during a timer recording. Press the **POWER** button to turn on the VCR/DVD. Press the **DVD** button on the remote control to choose DVD mode, then continue with the other DVD features as described in this manual. You don't have to set the **TIMER** off to use the DVD only.

Copying a Video Tape

Warning: Unauthorized recordings of copyrighted video tapes may be an infringement of copyright laws.



- 1) Insert a pre-recorded tape into the playing VCR.
- 2) Insert a tape with its record tab into the recording VCR/DVD.
- 3) Press the **SPEED** button on the remote control of the recording VCR/DVD to select the desired recording speed (SP/SLP).
- 4) Select the "L1" or "L2" position on the recording VCR/DVD.
 - To use the input jacks on the back of this unit, select "L1" position by pressing [0], [0], [1] on the remote control or the **SKIP/CH.** (▲/▼) buttons.
 - To use the input jacks on the front of this unit, select "L2" position by pressing [0], [0], [2] on the remote control or the **SKIP/CH.** (▲/▼) buttons.
- 5) Press the **REC** button on the recording VCR/DVD.
- 6) Begin playback of the tape in another source.
- 7) To stop recording, press the **STOP/EJECT** button on the recording VCR/DVD, then stop playback of the tape in another source.

Hint

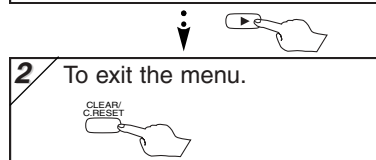
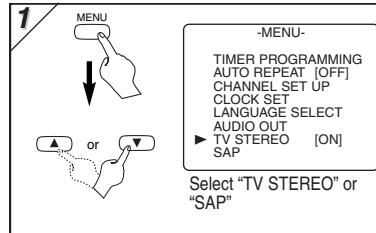
- For best results during dubbing, use the front panel controls whenever possible. The remote control might affect another source's operation.
- Always use video-quality shielded cables with RCA-type connectors. Standard audio cables are not recommended.
- You can use a video disc player, satellite receiver, or other audio/video component with A/V outputs.
- "L1" or "L2" is found before the lowest memorized channel. (Example: CH02)
- "L2" input jacks are on the front of this VCR/DVD.

MTS System (Multi-Channel Television Sound)

When You Receive or Record a Program Broadcast in MTS

- When you receive a broadcast on the VCR, you can check the type of the broadcast by pressing the **DISPLAY** button.
- When "TV STEREO" or "SAP" selection is valid, select them by following steps. This selection is needed when you record the program.
- SAP means Second Audio Program (usually second language).

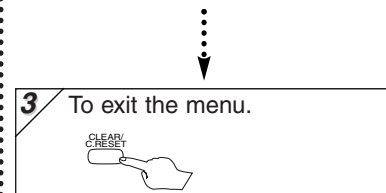
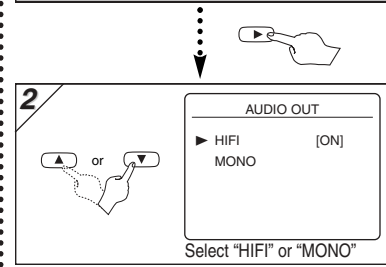
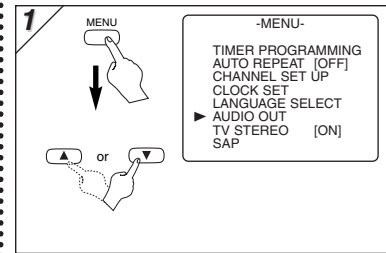
Display on the TV screen	Type of broadcast	STEREO/SAP Selection
-None-	Regular (monaural audio)	-Invalid-
STEREO	Stereo broadcast	-Invalid-
SAP	Bilingual broadcast	TV STEREO (main audio program)
		SAP (second audio program)
STEREO SAP	Stereo & Bilingual broadcast	TV STEREO (stereo main audio program) SAP (second audio program)



When You Play Back a Tape Recorded in Hi-Fi Stereo

- If you have connected a stereo TV to this VCR/DVD, select "STEREO".
- If you have connected a monaural TV to this VCR/DVD, select "MONO".

Your Selection	STEREO			MONO
	L-channel	R-channel		
non Hi-Fi tapes	Monaural	Monaural		Monaural
Hi-Fi tapes recorded in Hi-Fi stereo	L	R		L+R
Hi-Fi tapes recorded main audio program	Main audio program	Main audio program		Main audio program
Hi-Fi tapes recorded second audio program	Second audio program	Second audio program		Second audio program

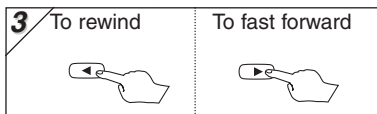
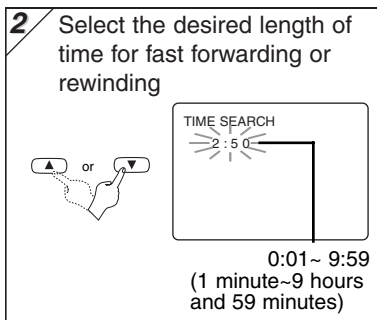
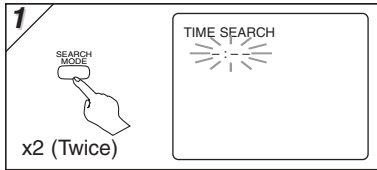


Special Features

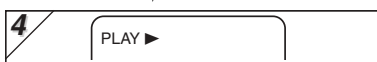
Time Search

You can specify the time for fast forwarding or rewinding.

- Insert a tape into this unit.



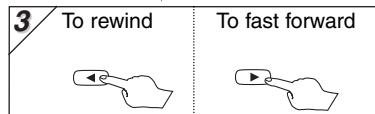
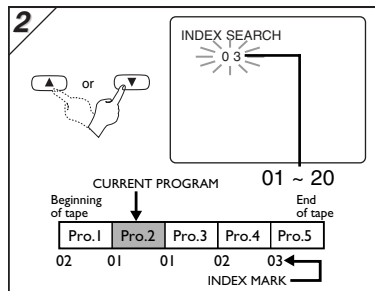
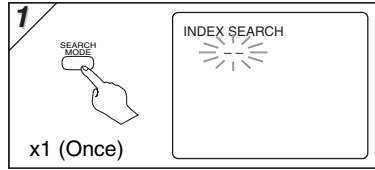
After searching,



Index Search

You can specify the number of programs to be skipped.

- Insert a tape into this unit.



After searching,



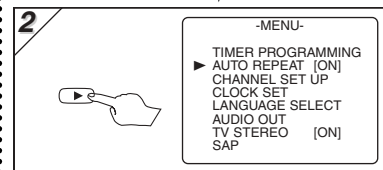
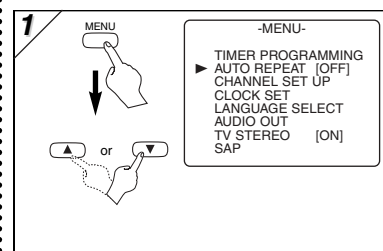
Hint

- This unit stores index mark at the beginning of the recording. There should be time gap between two index marks for the Index Search.

Auto Repeat

You can repeat playback of a whole tape automatically.

- Insert a tape into this unit.



Hint

- To cancel Auto Repeat, follow steps [1]-[2] above. Then, press the ▶ button, so that [OFF] appears beside AUTO REPEAT. Press the CLEAR/C.RESET button to exit.
- If menu remains on the TV screen at step [3], press the CLEAR/C.RESET button to exit.

Hint for Timer Search & Index Search

- These functions are not available during recording.
- Press the STOP button to stop the search.
- If the end of the tape is reached during a Search, this unit will cancel the search and rewind the tape.

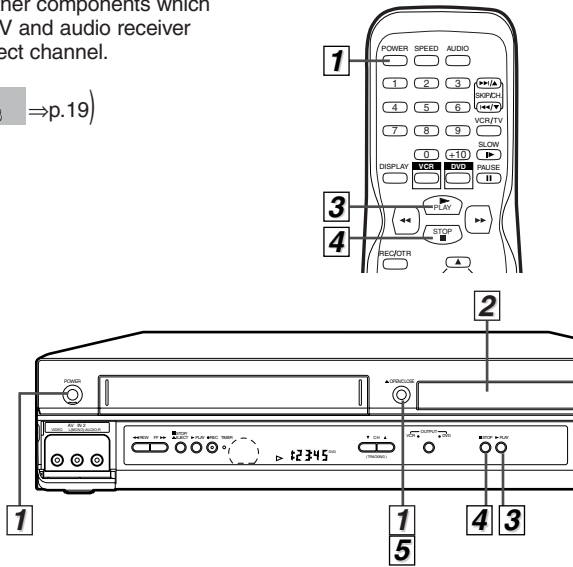
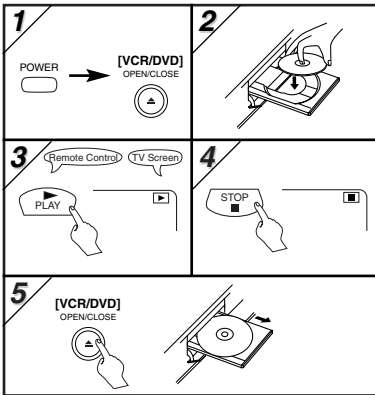
DVD Functions

Playback

Before: Turn on the TV, amplifier and any other components which are connected to this unit. Make sure the TV and audio receiver (commercially available) are set to the correct channel.



* See page 11 to switch the VCR/DVD function.



Hint

- When you play an MP3 file, details on page 19.
- A "prohibited icon" may appear at the top-right on the TV screen when the operation is prohibited by the disc or this unit.
- Some DVDs may be played from title 2 or 3 due to specific programs.
- During the playback of a two-layered disc, pictures may stop for a moment. This happens while the 1st layer is being switched to the 2nd layer. This is not a malfunction.
- A DVD-RW disc recorded in the VR mode may freeze momentarily during playback depending on how the playlist was made and edited (deleted titles, repeated recording).

DVD menu

DVDs may contain menus to access special features. Press appropriate Number buttons or use the arrow (▲/▼/◀/▶) buttons to highlight your selection on the DVD main menu and press the ENTER button to confirm.

Calling up a Menu Screen during Playback

- Press the MENU button to call up the DVD menu.
- Press the TOP MENU button to call up the title menu.

Hint

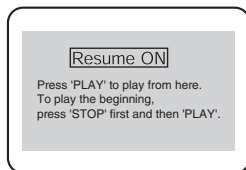
- Menu operations may vary depending on the disc. Refer to the manual accompanying the disc for details.

Resume



Press the **STOP** button. Resume message will appear on the TV screen.

Press the **PLAY** button, playback will resume from the point at which playback was stopped.



- To cancel resume, press the STOP button one more time during the Stop mode.
- For MP3, playback will resume from the beginning of the track at which playback was stopped.

Paused and Step-by-Step Playback



Press the **PAUSE** button during playback. To continue playback, press the **PLAY** button.



The disc goes forward by one frame each time the **PAUSE** button is pressed during the pause mode. To continue playback, press the **PLAY** button.

Hint

- Set "STILL MODE" to "FIELD" in the Display menu if pictures in the pause mode are blurred. (Refer to pages 23-24.)

Rapid Play



Available only on discs recorded in the Dolby Digital format, Rapid Play plays back in slightly faster/ slower speed while keeping the sound quality as in the normal playback.

- 1) During playback, press the **MODE** button.
 - The current setting appears.
- 2) Press the **ENTER** button to switch among ♪ (x1.3), ♪ (x0.8) and OFF.
 - ♪ : Plays back approximately at 0.8 times of normal playback.
 - ♪ : Plays back approximately at 1.3 times of normal playback.
- 3) To return to normal playback, press the **PLAY** button.

Hint

- Audio (language) setting cannot be changed while using this mode.
- Virtual Surround and Black Level settings cannot be changed while using this mode.
- Virtual Surround does not function while using this mode.
- This feature may not work at some point in a disc.
- When using digital audio connection (COAXIAL), the PCM sound will be output.

Playing the disc recorded in VR mode (Video Recording format)



DVDs recorded in VR mode can have a PLAYLIST assigned to alter the order or content to be played. If a PLAYLIST has been created, you can choose the ORIGINAL or PLAYLIST option.

- 1) Press the **MENU** button in stop mode.
 - The current setting screen will appear.
 - Pressing the **MENU** button during playback is not valid.



- 2) Press the ◀ or ▶ button to select ORIGINAL or PLAYLIST.
 - PLAYLIST will not be displayed when it has not been made.
 - Resume playback will not be possible if you change the setting.
- 3) Press the ▲ or ▼ button to select a title, then press the **ENTER** button.
 - Playback will start.

Hint

- [ORIGINAL]: A list of titles which are recorded with a DVD recorder.
- [PLAYLIST]: A list of titles which is made based on the ORIGINAL edited list.

Fast Forward/Reverse



Press the ►► or ◀◀ button repeatedly during playback to select the required forward or reverse speed.



To continue playback, press the PLAY button.

- For DVDs, fast forward or reverse speed is different depending on the disc. Approximate speed is 1(x2),2(x8),3(x50),4(x100).
- For Audio CDs, approximate speed is x16.
- For MP3, approximate speed is x8.

Slow Forward/Slow Reverse



Press the ►► or ◀◀ button repeatedly during the pause mode to select the required forward or reverse speed.



To continue playback, press the PLAY button.

- Slow forward or reverse speed is different depending on the disc. Approximate speed is 1(1/16),2(1/8),3(1/2).

Hint

- Set "STILL MODE" to "FIELD" in the Display menu if pictures in the slow playback mode are blurred. (Refer to pages 23-24.)

Zoom



- 1) Press the **ZOOM** button during playback.
- 2) Press the **ZOOM** button repeatedly to select the required zoom factor: x2, x4 or OFF.



- 3) Use the arrow (▲/▼/◀▶) buttons to slide the zoomed picture across the screen.
- 4) To exit zoom mode, press the **ZOOM** button to select OFF.

Hint

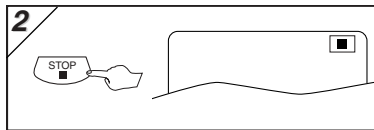
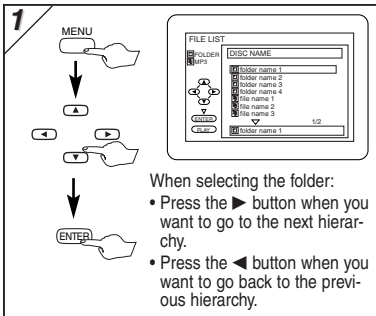
- Zooming function does not work while the disc menu is showing up.
- x4 zoom is not available on some discs.

MP3 Playback

MP3 is a method of compressing files. You can copy MP3 files on CD-RW/Rs from the computer and play the files on this unit.



Insert a MP3-format disc, then press the MENU button to call up the MP3 menu on the TV screen.



Hint

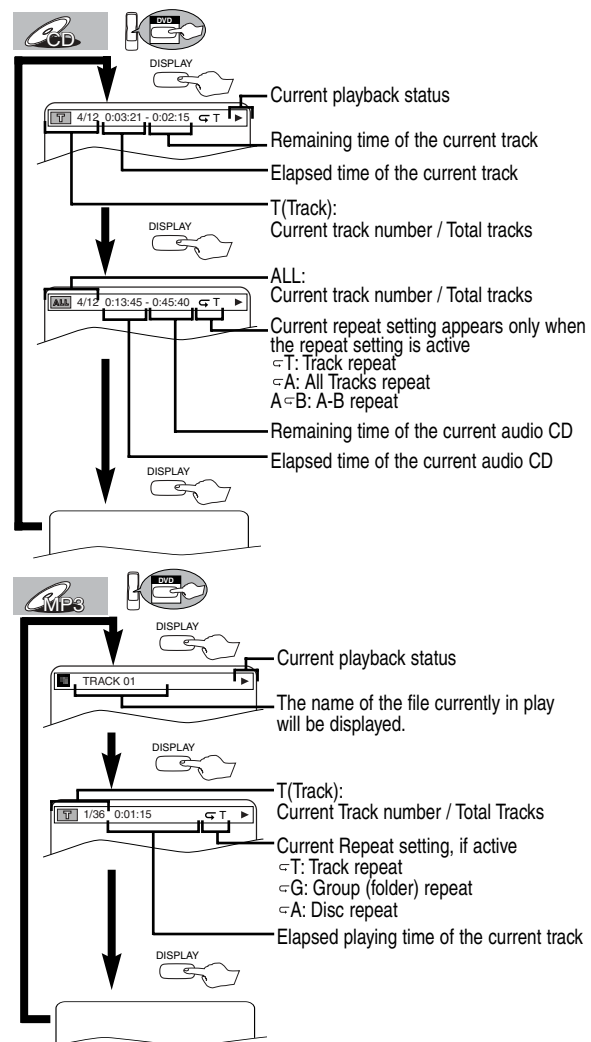
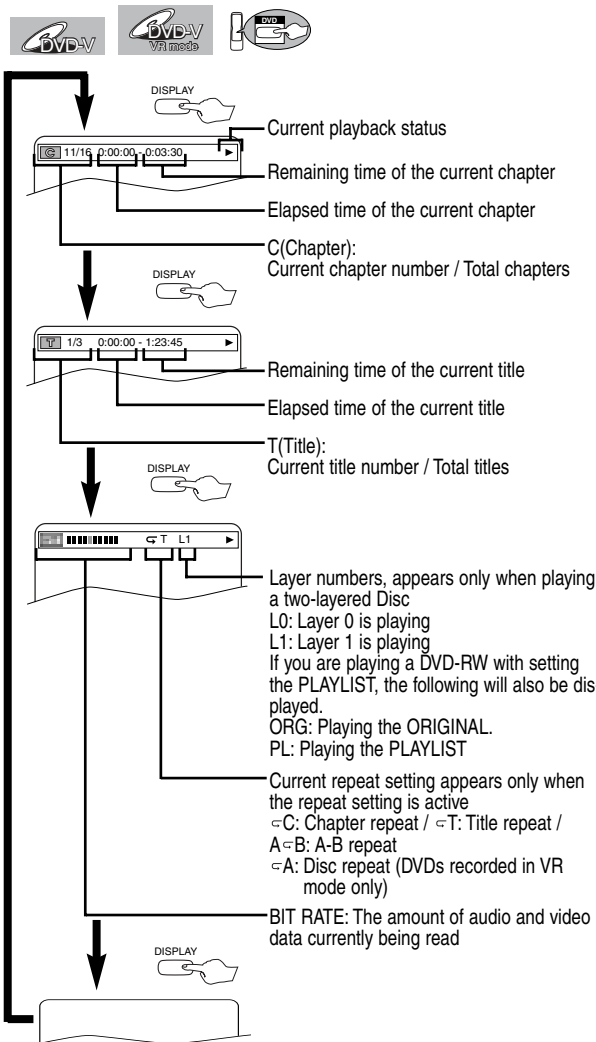
- Some selections may take a while to be recognized.
- Press the TOP MENU button to return to the first item.
- Folders are known as Groups; files are known as Tracks.
- MP3 files are accompanied by icon.
- Folders are accompanied by icon.
- A maximum of 255 folders can be recognized.
- A maximum of 512 files can be recognized.
- Up to 8 hierarchies can be created.

This player recommends the files recorded under the following circumstances:

- Sampling frequency: 44.1kHz or 48kHz
- Constant bit rate: 112kbps ~ 320kbps

The On-Screen Display

You can check the information about the current disc by pressing the DISPLAY button on the remote control.



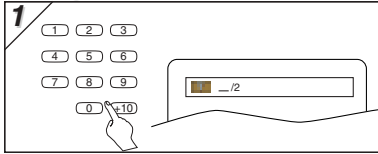
DVD Functions

Search Function

Track Search

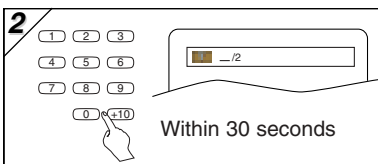
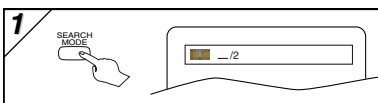


Using the number buttons

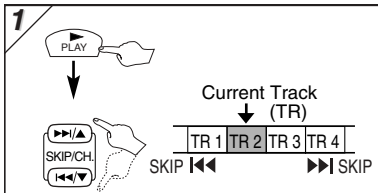


- For single digit tracks (1-9), press a single number (eg. track 3, press 3).
- To play track 26, press +10, 2, 6 of the Number buttons.

Using the SEARCH MODE button



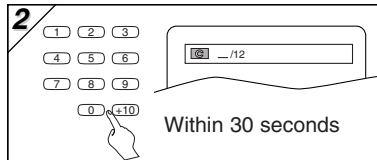
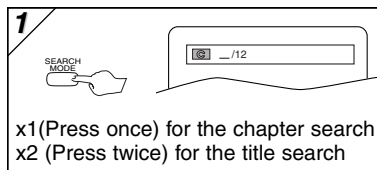
Using the SKIP <<<, >>> buttons



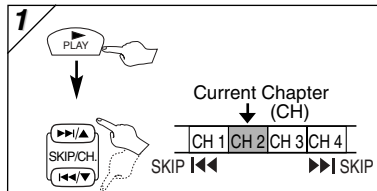
Title / Chapter Search



Using the SEARCH MODE button



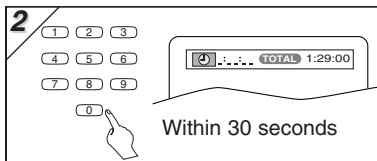
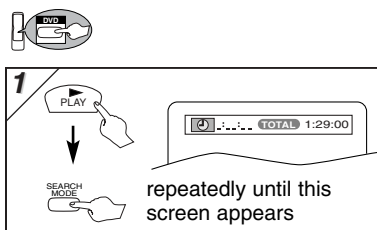
Using the SKIP <<<, >>> buttons



Hint

- Depending on the disc being played, this function can also be performed by directly entering the desired chapter number with the number buttons. Refer to the manual accompanying the disc.

Time Search



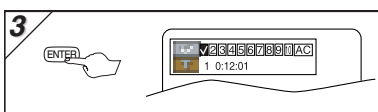
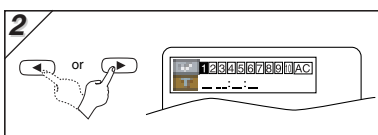
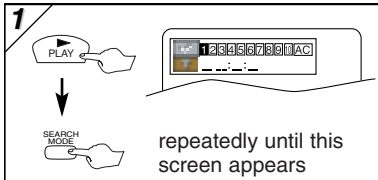
- When there is no need to enter a number, "0" appears automatically. For example, "0:0:_" appears in the Time Search display if the total time of the disc is less than 10 minutes.

Marker Setup

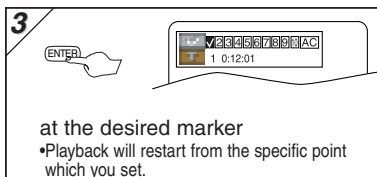
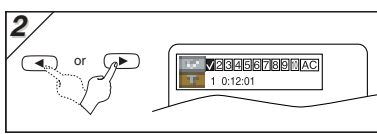
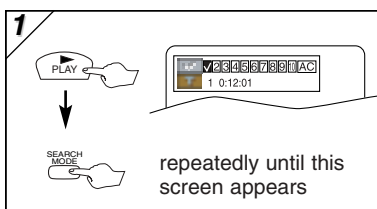


This feature allows you to assign a specific point on a disc to be called back later.

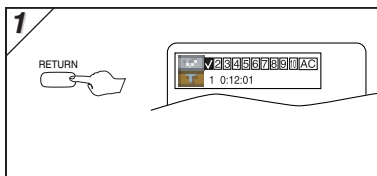
To set a marker



To return to the marker later



To exit the marker screen



Hint

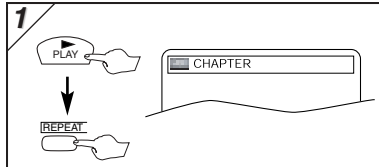
- Opening the disc tray or turning off the power will erase all markers.
- Selecting "AC" at step [2] in the section "To set a marker" will also erase all markers.
- To clear a marker, select the marker to be cleared at step [2] in the section "To return to the marker later," and then press the CLEAR/C.RESET button.

Repeat / Random / Programmed Playback

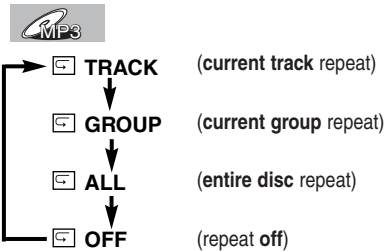
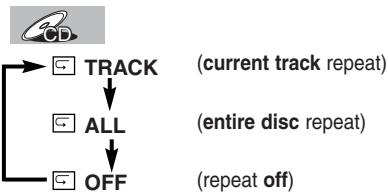
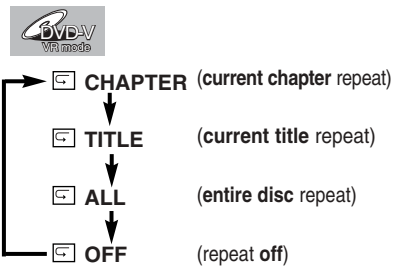
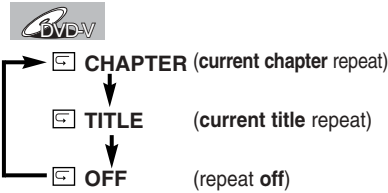
Repeat Playback



Repeat function is available only during playback.

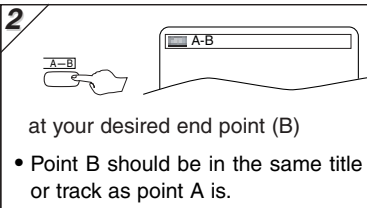
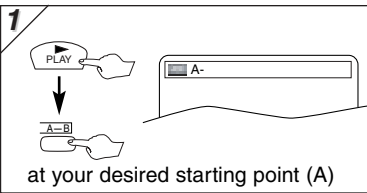


Each time the REPEAT button is pressed...



- Repeat setting will be cleared when moving to another title, chapter, or track.
- Repeat playback are not available with all discs or during repeat A-B playback.

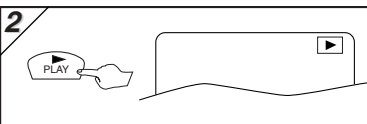
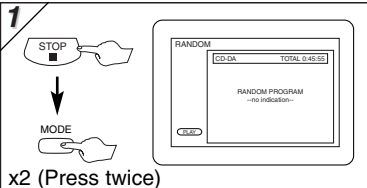
Repeat A-B Playback



- To exit the sequence, press the A-B button.
- To cancel Point A, press the CLEAR/C.RESET button.
- This function does not work in the other repeat modes.

Random Playback

This shuffles the playing order of tracks instead of playback in the sequence.



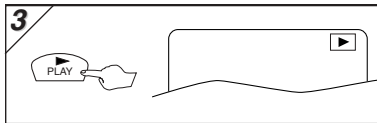
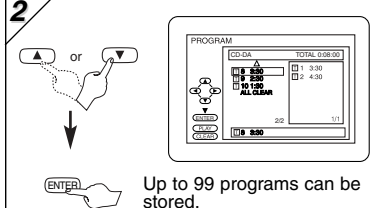
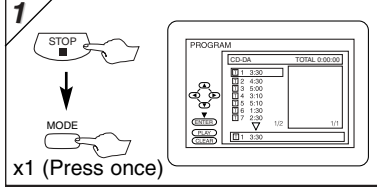
Hint

- If you want to repeat the current track in the random selections, press the REPEAT button repeatedly until TRACK appears during playback. If you want to repeat the entire random selections, press the REPEAT button repeatedly until ALL appears during playback.

Programmed Playback



You may determine the order in which tracks will play.



Hint

- Press the CLEAR/C.RESET button at step [2] to erase the most recently entered program.
- To erase all tracks in the program at once, select "ALL CLEAR" and press the ENTER button at step [2].
- While a program is being played back, the STOP button works as follows;
 - ⇒ Press the STOP button and the PLAY button next, so that the programmed playback restarts. (CD playback restarts from the current point. MP3 playback restarts from the beginning of the current track.)
 - ⇒ Press the STOP button twice and the PLAY button next, so that playback restarts from the first track in the original order. However, your programmed playback can be restarted when you follow the above steps. (Your programs are still stored until either the disc tray is open or power is turned off.)
- To repeat the current track in the program, press the REPEAT button repeatedly until TRACK appears during playback.
- To repeat the entire program press the REPEAT button repeatedly until ALL appears during playback.

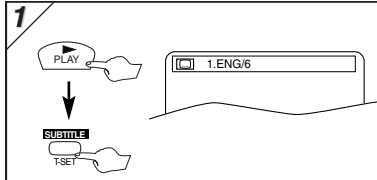
DVD Functions

Special Settings

Subtitle Language

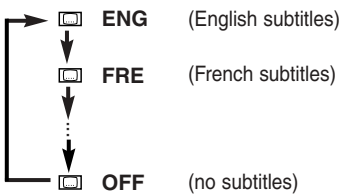


This unit allows you to select a subtitle language (if available) during DVD playback.

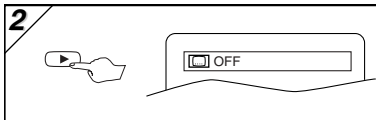
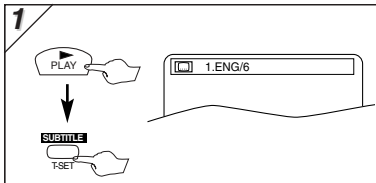


Each time you press the SUBTITLE/TSET button, subtitle languages change.

For example



To set subtitle ON/OFF



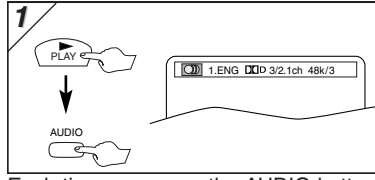
Hint

- If your language is not shown after pressing the AUDIO or SUBTITLE/TSET button several times, the disc may not have that language. However, some discs allow audio language or subtitle language setting on the disc menu. (Operation varies depending on the discs, so refer to the manual along with the disc.)
- When "NOT AVAILABLE" appears on the TV screen, it means no subtitle is recorded on the scene.
- If you choose a language that has a 3 letter language code, the code will be displayed every time you change the subtitle language setting. If you choose any other languages, "----" will be displayed instead. (Refer to page 27.)

Audio Language

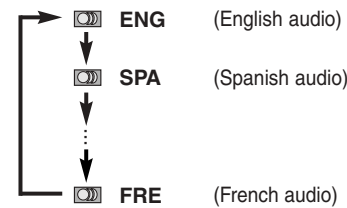


This unit allows you to select an audio language (if multiple languages are available) during DVD playback.



Each time you press the AUDIO button;

For example



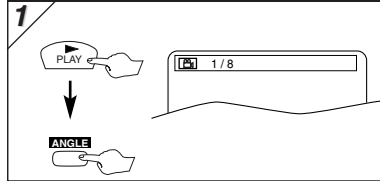
Hint

- For DVD-RW (VR mode), Pressing the AUDIO button cycles the sound mode through MAIN, SUB, MAIN + SUB.
- For DVD-RW (VR mode), the discs recorded in double sound (two languages) can be played back in either sound mode of MAIN, SUB or MAIN + SUB.
- The sound mode cannot be changed during playback of discs not recorded in double sound.
- Audio language selection cannot be made during Rapid Play. (Refer to page 17.)
- Pressing the AUDIO button may not work on some DVDs with multiple audio languages (e.g. DVDs which allow audio language setting on the disc menu).
- With discs recorded in VR mode, changing the audio (MAIN, SUB or MAIN+SUB) is effective only when using an analogue connection. Although you may be able to change the settings of the on-screen display, it will not affect the sound when using a digital connection.

Camera Angle



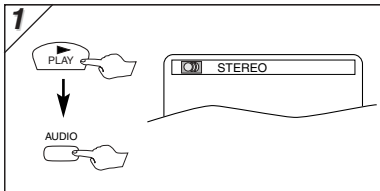
Some DVD discs may contain scenes which have been shot simultaneously from various angles. You can change the camera angle if the (ANGLE) icon appears on the screen. If the "ANGLE ICON" setting is "OFF" in the Display menu, the (ANGLE) icon will not appear. (Refer to pages 23-24.)



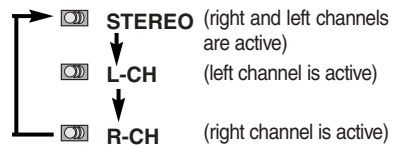
Stereo Sound mode



This unit allows you to select a sound mode during CD playback.



Each time you press the AUDIO button;



Hint

- If the Virtual Surround setting is "1" or "2", the sound mode will be fixed to STEREO, and cannot be changed.
- Stereo sound mode will not be changed when playing DTS CD.

Black Level Setting



Adjust the Black Level Setting to make the dark areas of the TV picture brighter.

1 → repeatedly until this screen appears

2 → ON: Makes the dark areas brighter.
OFF: Shows the original picture as recorded.

3

Hint

- The setting will be saved even if the player is turned off.
- This function cannot be used during Rapid Play. (Refer to page 17.)

Virtual Surround



You can enjoy stereophonic virtual world on your existing 2 channel stereo system.

1 → repeatedly until this screen appears

2 →

1: Natural effect
2: Emphasized effect
OFF: No effects (original sound)

3

Hint

- The setting will not be effective unless the sound mode is set to STEREO. (for CD play only)
- This function cannot be used during Rapid Play. (Refer to page 17.)
- The setting will be saved even if the player is turned off.

DVD Set Up

QUICK SETUP Menu

You can select the "PLAYER MENU", "TV ASPECT", "DOLBY DIGITAL" or "DTS" from the QUICK SETUP menu quickly.

1 → → →

<SETUP MENU>
Confirm that QUICK is selected

2 → →

Select the desired item

PLAYER MENU ENGLISH
TV ASPECT 4:3 LETTER BOX
DOLBY DIGITAL BITSTREAM
DTS OFF

P24 **A** (Step 5)
P24 **B** (Step 5)
P25 **C** (Step 5)

•Refer to the sections "PLAYER MENU", "TV ASPECT", "DOLBY DIGITAL" or "DTS" section on pages 23-25.

CUSTOM Menu

You can change the DVD player's settings.

1 → → →

<SETUP MENU>

2 → →

Select CUSTOM

3 → →

To select the desired item

LANGUAGE ORIGINAL
AUDIO SUBTITLE OFF
DISC MENU ENGLISH
PLAYER MENU ENGLISH

LANGUAGE menu → page 24 **A**

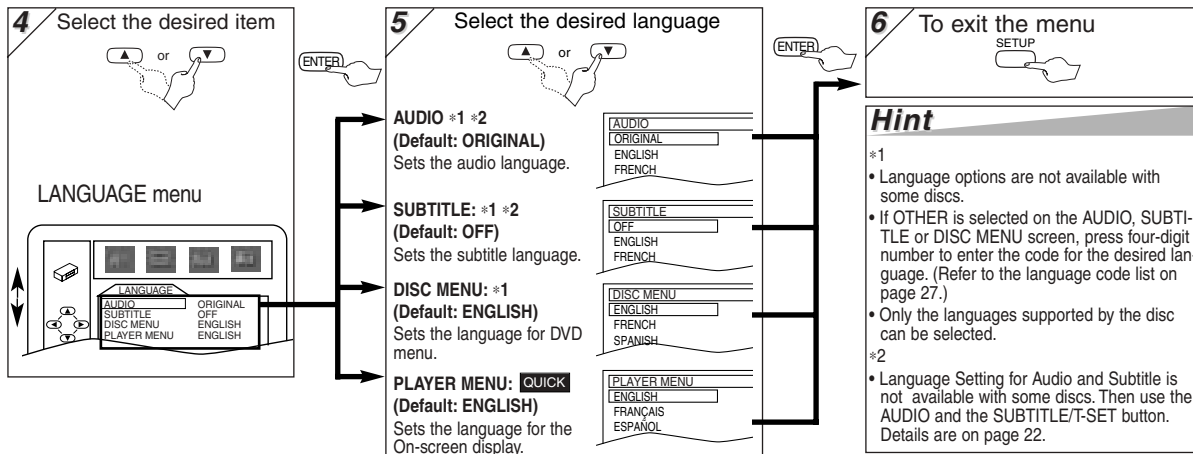
DISPLAY menu → page 24 **B**

AUDIO menu → page 25 **C**

PARENTAL menu → page 26 **D**

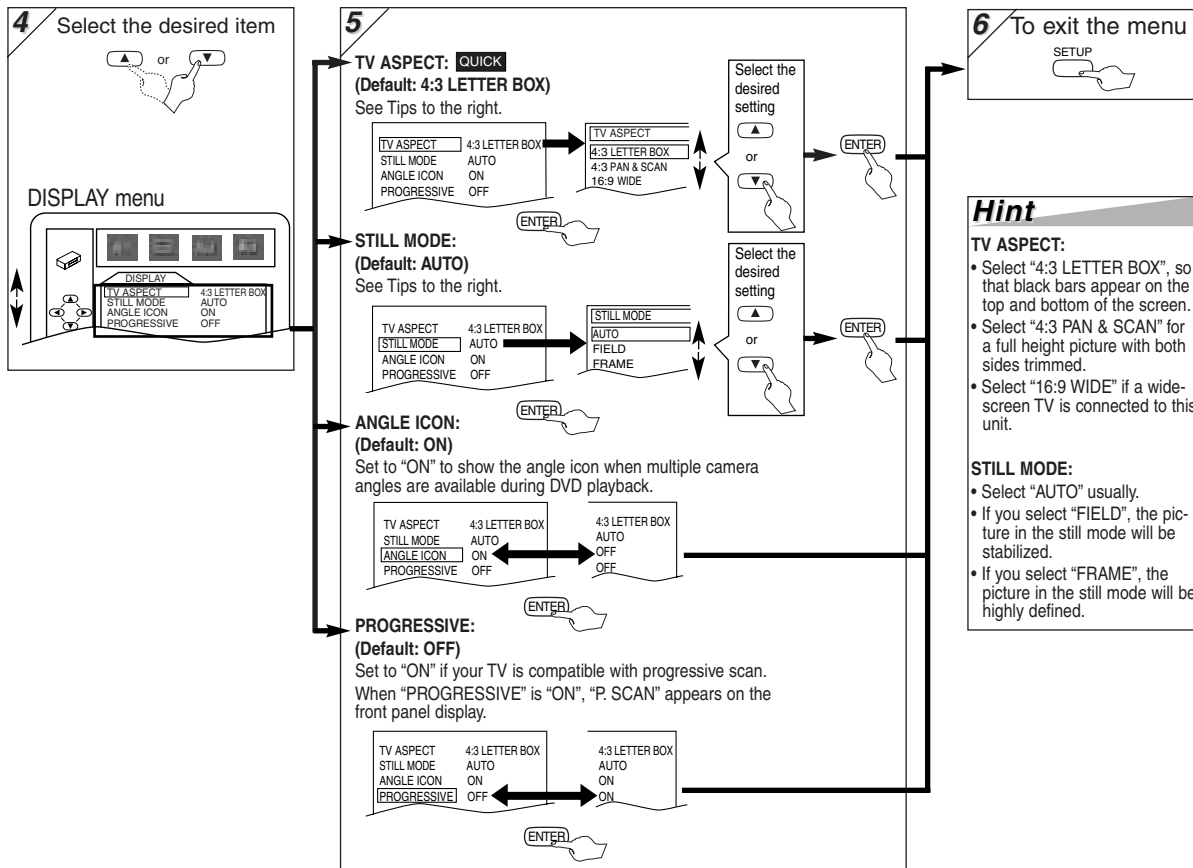
A LANGUAGE Setting

Follow the step 1) to 3) in the "CUSTOM Menu" section on page 23.



B DISPLAY Setting

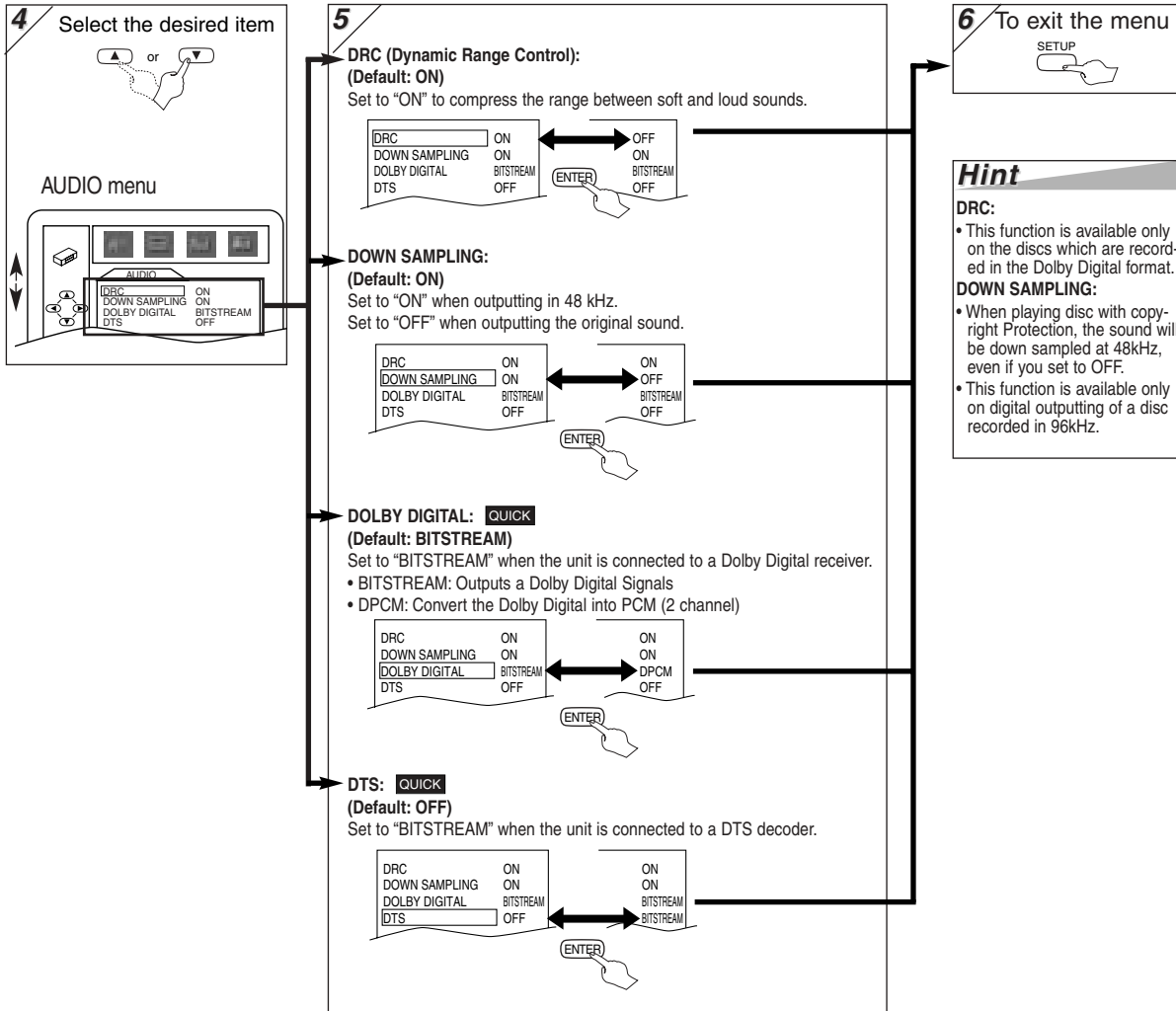
You can change the display functions. Follow the step 1) to 3) in the "CUSTOM Menu" section on page 23.



DVD Functions

C AUDIO Setting

Choose the appropriate audio settings for your equipment. It only affects during the playback of DVD discs. Follow the step 1) to 3) in the "CUSTOM Menu" section on page 23.



D PARENTAL Setting

Parental Control limits the disc viewing that exceed your settings. (if an incorrect password is entered, the disc will not play) This feature prevents your children from viewing inappropriate materials.

Parental Levels

Parental Level allows you to set the rating levels of your DVD discs. Playback will stop if the ratings exceed the levels you set. Follow the steps 1) to 3) in the "CUSTOM Menu" section on page 23.

4 Enter your desired four-digit password (except for 4737)

1 2 3
4 5 6
7 8 9
0

ENTER

PARENTAL menu

..... or

If you have set a password already, enter the current four-digit password.

5 Select "PARENTAL LEVEL"

▲ or ▼

PARENTAL LEVEL ALL CHANGE

ENTER

6 Select the desired levels

▲ or ▼

PARENTAL LEVEL
ALL
8
7 [NC-17]
6 [R]

ENTER

7 To exit the menu

SETUP

ENTER

Hint

CONTROL LEVELS

- ALL: All parental locks are cancelled.
- Levels 8: DVD softwares of any grades (adult/general/children) can be played back.
- Levels 7 to 2: Only DVD softwares intended for general use and children can be played back.
- Level 1: Only DVD softwares intended for children can be played back, with those intended for adult and general use prohibited.

To Change the Password for Parental Controls

You can change your password for parental controls. Follow the steps 1) to 3) in the "CUSTOM Menu" section on page 23.

DVD Functions

4 Enter your desired four-digit password (except for 4737)

1 2 3
4 5 6
7 8 9
0

ENTER

PARENTAL menu

5 Select "CHANGE"

▲ or ▼

PARENTAL LEVEL CHANGE

ENTER

6 Enter your new four-digit password (except for 4737)

1 2 3
4 5 6
7 8 9
0

ENTER

SETUP PARENTAL
PASSWORD
Please enter a 4-digit password.
[] [] [] []

7 To exit the menu

SETUP

ENTER

Hint

- Record the password in case you forget it.
- If you forget the password, press 4, 7, 3, 7 at step 4, then enter your new password.
- Password will be cleared and parental levels will be set to ALL.

To return the All Selections of SET UP (except for PARENTAL) to the Default Setting

1

STOP → SETUP

<SETUP MENU>

QUICK SETUP

PLAYER MENU ENGLISH
TV ASPECT 4:3 LETTER BOX
DOLBY DIGITAL BITSTREAM OFF
DTS

2

← or →

Select INITIALIZE

QUICK SETUP

PLAYER MENU ENGLISH
TV ASPECT 4:3 LETTER BOX
DOLBY DIGITAL BITSTREAM OFF
DTS

ENTER

3

▲ or ▼

Select "YES"

INITIALIZE?

NO
YES

x2 (twice)

ENTER

4 To exit the menu

SETUP

ENTER

Hint

- When you cancel to initialize at step 3, select "NO".

Information

Language List

Language	Code	Language	Code	Language	Code	Language	Code
	A-B	French [FRE]	5264	Macedonian	5957	Siswat	6565
Abkhazian	4748	Frisian	5271	Malagasy	5953	Slovak	6557
Afar	4747	Galician	5358	Malay	5965	Slovenian	6558
Afrikaans	4752	Georgian	5747	Malayalam	5958	Somali	6561
Albanian	6563	German [GER]	5051	Maltese	5966	Spanish [SPA]	5165
Amharic	4759	Greek [GRE]	5158	Maori	5955	Sundanese	6567
Arabic	4764	Greenlandic	5758	Marathi	5964	Swahili	6569
Armenian	5471	Guarani	5360	Moldavian	5961	Swedish [SWE]	6568
Assamese	4765	Gujarati	5367	Mongolian	5960		T
Aymara	4771	Hausa	5447	Nauru	6047	Tagalog	6658
Azerbaijani	4772	Hebrew	5569	Nepali	6051	Tajik	6653
Bashkir	4847	Hindi	5455	Norwegian [NOR]	6061	Tamil	6647
Basque	5167	Hungarian [HUN]	5467		O-R	Tatar	6666
Bengali;Bangla	4860		I-K	Occitan	6149	Telugu	6651
Bhutani	5072	Icelandic [ICE]	5565	Oriya	6164	Thai	6654
Bihari	4854	Indonesian	5560	Oromo(Afan)	6159	Tibetan	4861
Bislama	4855	Interlingua	5547	Panjabi	6247	Tigrinya	6655
Breton	4864	Interlingue	5551	Pashto;Pushto	6265	Tonga	6661
Bulgarian	4853	Inupiak	5557	Persian	5247	Tsonga	6665
Burmese	5971	Irish [IRI]	5347	Polish	6258	Turkish [TUR]	6664
Byelorussian	4851	Italian [ITA]	5566	Portuguese [POR]	6266	Turkmen	6657
	C-E	Japanese [JPN]	5647	Quechua	6367	Twi	6669
Cambodian	5759	Javanese	5669	Rhaeto-Romance	6459		U-Z
Catalan	4947	Kannada	5760	Romanian [RUM]	6461	Ukrainian	6757
Chinese [CHI]	7254	Kashmiri	5765	Russian [RUS]	6467	Urdu	6764
Corsican	4961	Kazakh	5757		S	Uzbek	6772
Croatian	5464	Kinyarwanda	6469	Samoan	6559	Vietnamese	6855
Czech	4965	Kirghiz	5771	Sangho	6553	Volapuk	6861
Danish [DAN]	5047	Kirundi	6460	Sanskrit	6547	Welsh	4971
Dutch [DUT]	6058	Korean [KOR]	5761	Scots Gaelic	5350	Wolof	6961
English [ENG]	5160	Kurdish	5767	Serbian	6564	Xhosa	7054
Esperanto	5161		L-N	Serbo-Croatian	6554	Yiddish	5655
Estonian	5166	Laothian	5861	Sesotho	6566	Yoruba	7161
	F-H	Latin	5847	Setswana	6660	Zulu	7267
Faroese	5261	Latvian;Lettish	5868	Shona	6560		
Fiji	5256	Lingala	5860	Sindhi	6550		
Finnish [FIN]	5255	Lithuanian	5866	Singhalese	6555		

If you choose a Language that has a 3 letter language code, the code will be displayed every time you change the Audio or Subtitle language setting on page 22. If you choose any other languages, '---' will be displayed instead. (3 letter language code is written in bracket.)

Specifications

PRODUCT TYPE

DVD Player with Video Cassette recorder

CONNECTIONS

Front panel:

Video input RCA connector × 1
Audio input RCA connector × 2

Rear panel:

AUDIO input RCA connector (left, right)
VIDEO input RCA connector
AUDIO output RCA connector (left, right)
VIDEO output RCA connector
S-Video output Mini DIN 4-pin jack (75 Ω)
Analog audio output RCA connectors × 2 (one left channel, one right channel)
2 Vrms (47 kΩ)
Coaxial digital audio output One pin jack, 500mVpp (75 Ω)
Component output Y output level: 1Vp-p (75Ω)
CB/PB output level: 0.7Vp-p (75Ω)
CR/PR output level: 0.7Vp-p (75Ω)

[VCR section]

NUMBER OF VIDEO HEADS

4

VIDEO SIGNAL STANDARD

NTSC color system

AUDIO RECORDING SYSTEM

1 Stationary head for liner audio
2 Rotary heads for Hi-Fi stereo

WOW AND FLUTTER

Below the measurement limitation (±0.001% W PEAK)
(JEITA)

CHANNEL COVERAGE

VHF 2-13
UHF 14-69
CATV 1-125

TIMER BACKUP

30 seconds

[DVD section]

DISCS (PLAYBACK COMPATIBILITY)

DVD Video, Audio CD, CD-RW/R
DVD-RW/R, DVD+RW/R

FREQUENCY RESPONSE

DVD (linear sound) : 20 Hz to 20 kHz (sample rate: 48 kHz)
20 Hz to 44 kHz (sample rate: 96 kHz)
CD : 20 Hz to 20 kHz

SIGNAL-TO-NOISE RATIO (S/N RATIO)

CD : 110 dB (JEITA)

DYNAMIC RANGE

DVD (linear sound) : 90 dB
CD : 90 dB (JEITA)

TOTAL DISTORTION FACTOR

DVD : 1KHz 0.008% (JEITA)
CD : 1KHz 0.008% (JEITA)

POWER SOURCE

120V AC +/- 10%, 60Hz +/- 0.5%

POWER CONSUMPTION

21W (standby: 3.6W)

OPERATING TEMPERATURE

41°F (5°C) to 104°F (40°C)

DIMENSIONS

W: 17 3/16" (435 mm)
H: 3 3/4" (94 mm)
D: 9 3/16" (233 mm)

WEIGHT

Approx. 6 lbs (2.7 kg)


- Designs and specifications are subject to change without notice.
- If there is a discrepancy between languages, the default language will be English.

Service Information (For the U.S.)

For the location of the nearest Sharp Authorized Service Center, or to obtain product literature, accessories, supplies or customer assistance, please call **1-800-BE-SHARP** (1-800-237-4277) or visit SHARP's website (<http://www.sharppusa.com>).

Troubleshooting Guide

If this unit does not perform properly when operated as instructed in this Operation Manual, check this unit consulting the following checklist.

	PROBLEM	CORRECTIVE ACTION
D V D	No power.	<ul style="list-style-type: none"> • Make sure the power plug is connected to an AC outlet. • Make sure the power is turned on.
	This unit does not respond to the remote control.	<ul style="list-style-type: none"> • Check if the power plug is connected to an AC outlet. • Check the batteries in the remote control. • Aim the remote control directly at the remote sensor. If necessary, remove all the obstacles between the sensor and the remote. • You have to be within 23 feet of this unit. • Check if the right mode is selected. If it's not in the right mode, press the DVD or VCR buttons, whichever you need, on the remote control. • Check if a cassette tape is in this unit. • Tune your radio to an empty AM station so that you hear a lot of noises. Turn the volume up, then. If you hear some signal sound from the radio in response to your pressing buttons on the remote, the remote control is working.
V C R	Timer recording is impossible.	<ul style="list-style-type: none"> • Make sure the timer recording is set correctly. • Make sure the TIMER and  lights appear on the VCR/DVD. If not, press the SUBTITLE/T-SET button. • Make sure the VCR clock is set correctly.
	Cannot go into Record mode.	<ul style="list-style-type: none"> • Make sure the tape has a safety tab. If needed, cover the hole with cellophane tape. • Activate this unit in VCR mode. Press the VCR button on the remote control so that the green VCR OUTPUT light is lit.
	Playback picture is partially noisy.	<ul style="list-style-type: none"> • Adjust tracking control for a better picture by pressing the CH (▼/▲) buttons on the VCR/DVD or the SKIP/CH.(▲/▼) buttons on the remote control.
	Cannot view a tape but the audio is OK.	<ul style="list-style-type: none"> • Head cleaning may be necessary. Refer to "AUTO HEAD CLEANING". • Make sure the VCR is not in the Menu mode.
	No, or poor, playback picture.	<ul style="list-style-type: none"> • Change the RF output channel to CH4. Then select the same channel on the TV. • Fine tune your TV.
	TV programs cannot be seen normally.	<ul style="list-style-type: none"> • Re-check the ANT. IN and ANT. OUT connections. See pages 1 and 7. • Press the VCR/TV button. • Press the VCR button on the remote control to activate it in the VCR mode. Check if the green VCR OUTPUT light is lit. Then, set it to the TV position by pressing the VCR/TV button.
	Video or color fades in and out when making a copy of a video tape.	<ul style="list-style-type: none"> • You cannot copy a copyrighted video tape. You are experiencing copy guard protection.
D V D	No picture.	<ul style="list-style-type: none"> • Connect the video cables firmly. • Insert a correct video disc that plays on this unit. • Press the DVD button on the remote control. Check if the DVD OUTPUT light is lit. Then try other DVD features.
	Disc cannot be played.	<ul style="list-style-type: none"> • Insert the disc. • Clean the disc. • Place the disc correctly with the label side up. • Cancel the parental lock or change the control levels. • Handle a disc with special care so that it does not have fingerprints, scratches, or dusts on its surface.
	No sound.	<ul style="list-style-type: none"> • Connect the audio cables firmly. • Turn the power of the audio component on. • Correct the audio output settings. • Correct the input settings on the audio component.
	No DTS audio is output.	<ul style="list-style-type: none"> • Use a DIGITAL AUDIO OUT jack when outputting the DTS audio.
	Distorted picture.	<ul style="list-style-type: none"> • Connect this unit directly to the TV. • There are some cases where pictures may be slightly distorted, and those are not a sign of a malfunction. • Although pictures may stop for a moment, this is not a malfunction. • Check if the INTERLACE/PROGRESSIVE mode is set correctly according to your TV. See page 9.
	Audio or subtitle language does not match the set up.	<ul style="list-style-type: none"> • The selected language is not available for audio or subtitles on the DVD. This is not a malfunction.
	The camera angle cannot be changed.	<ul style="list-style-type: none"> • The DVD does not contain sequences recorded from different camera angles. This is not a malfunction.
	Audio or subtitle language cannot be changed.	<ul style="list-style-type: none"> • The DVD does not contain audio source or subtitles in the selected language. This is not a malfunction.
	"Prohibited icon" appears on the screen, prohibiting an operation.	<ul style="list-style-type: none"> • That operation is prohibited by this unit or the disc. This is not a malfunction.

- Some functions are not available in specific modes, but this is not a malfunction. Read the description in this Operation Manual for details on correct operations.
- Playback from a desired track and random playback are not available during program playback.
- Some functions are prohibited on some discs.

Information

Para futura referencia, anote los números de modelo y de serie (indicados en la parte posterior esta unidad) en el espacio provisto.

No. de modelo: DV-NC150U

No. de serie: _____

AVISO: PARA REDUCIR EL RIESGO DE INCENDIO O ELECTROCHOQUE NO EXPONGA ESTE APARATO A LA HUMEDAD.

PRECAUCIÓN: PARA EVITAR DESCARGAS ELÉCTRICAS, HAGA QUE LA PALETA ANCHA DEL ENCHUFE COINCIDA CON LA RANURA ANCHA E INTRODÚZCALA HASTA EL FONDO.



PRECAUCION:
TPARA REDUCIR EL RIESGO DE DESCARGA ELECTRICA, NO quite la cubierta. EL USUARIO NO DEBERA DAR NINGUN TIPO DE SERVICIO A NINGUNA PARTE INTERNA. DEBERA SER REALIZADO SOLO POR PERSONAL DE SERVICIO CALIFICADO.



Este símbolo previene al usuario del voltaje aislado dentro de la unidad que puede provocar descargas eléctricas peligrosas.



Este símbolo advierte al usuario que existen instrucciones de operación y de mantenimiento en la literatura incluida en esta unidad.

“ADVERTENCIA—Las reglas de la FCC (Comisión Federal de Comunicaciones) estipulan que cualquier modificación o cambio a este equipo no aprobado expresamente por el fabricante podrá anular la autorización del usuario para operar este equipo”.

Este dispositivo cumple con la Parte 15 de las reglas de la FCC (Comisión Federal de Comunicaciones). La operación se encuentra sujeta a las dos condiciones siguientes:

- (1) Este dispositivo no debería producir interferencias perjudiciales, y
- (2) este dispositivo debe aceptar cualquier interferencia recibida, incluyendo las que puedan producir una operación indeseable.

INFORMACION

Este equipo se ha sometido a todo tipo de pruebas y cumple con las normas establecidas para dispositivo digital de Clase B, de conformidad con la Parte 15 de las reglas de la FCC (Comisión Federal de Comunicaciones). Estas reglas están diseñadas para asegurar una protección razonable contra interferencias perjudiciales en las instalaciones residenciales. Este equipo genera, utiliza y puede emitir energía de radiofrecuencia y, si no se instala y utiliza debidamente, es decir, conforme a las instrucciones, podrían producirse interferencias perjudiciales en las radiocomunicaciones. Sin embargo, no se garantiza que estas interferencias no se produzcan en una instalación determinada. Si este equipo ocasiona interferencias en la recepción de radio o televisión, lo cual puede comprobarse con sólo apagar y encender el equipo, intente corregir el problema mediante una o una combinación de las siguientes medidas:

- Reoriente la antena receptora o cámbiela de lugar.
- Aumente la separación entre el equipo y el receptor.
- Enchufe el equipo a una toma de corriente situada en un circuito distinto del receptor.
- Consulte a su distribuidor o a un técnico experto en radio/televisión.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Este aparato digital de la Clase B cumple con la norma ICES-003 de Canadá.

Aviso al instalador del sistema CATV:

Este aviso tiene la finalidad de llamar la atención del instalador del sistema CATV para que tenga en cuenta el Artículo 820-40 de NEC, que ofrece instrucciones para realizar una conexión a tierra apropiada y, en particular, especifica que el cable de puesta a tierra deberá conectarse al sistema de puesta a tierra del edificio tan cerca del punto de entrada del cable como sea posible.

PRECAUCION:

ESTA UNIDAD HA SIDO CLASIFICADA COMO PRODUCTO CLASS 1 LASER.

EL USO DE MANDOS O AJUSTES O LA REALIZACION DE PROCEDIMIENTOS DISTINTOS DE LOS INDICADOS EN LA PRESENTE IMPLICA EL RIESGO DE EXPOSICION A UNA RADIACION PELIGROSA.

COMO LOS RAYOS LASER UTILIZADOS EN ESTA UNIDAD PUEDEN RESULTAR PERJUDICIALES PARA SUS OJOS, NO INTENTE DESARMAR EL GABINETE. SOLICITE EL SERVICIO UNICAMENTE A PERSONAL CUALIFICADO.

Los productos que han ganado la marca ENERGY STAR® han sido diseñados para proteger el medio ambiente mediante una eficiencia superior en el uso de la energía.

IMPORTANTES MEDIDAS DE SEGURIDAD Y PRECAUCIONES

- 1) Lea las instrucciones - Lea detenidamente todas las instrucciones de seguridad y operación antes de usar el producto.
- 2) Conserve las instrucciones - Conserve las instrucciones de seguridad y operación para consultas futuras.
- 3) Respete las advertencias - Observe estrictamente todas las advertencias impresas en el producto y las incluidas en el manual de instrucciones.
- 4) Siga las instrucciones - Siga todas las instrucciones de operación.
- 5) Limpieza - Desconecte el producto del tomacorriente mural antes de limpiarlo. No use limpiadores líquidos ni aerosol. Use un paño húmedo para la limpieza del producto.

EXCEPCIÓN: A un producto que haya sido diseñado para funcionar sin interrupción y que, por cualquier razón específica, como puede ser la posibilidad de perder un código de autorización para un convertidor de CATV, no deba ser desenchufado por el usuario para su limpieza o con otra finalidad, no se le aplicará lo indicado en la descripción de limpieza del punto 5.

- 6) Enchufes - No use enchufes no recomendados por el fabricante del producto, ya que podría ser peligroso.
- 7) Agua y humedad - No use este producto cerca del agua, por ejemplo, cerca de una bañera o lavamanos, cerca del fregadero de la cocina o lavandería, en un piso mojado, cerca de una piscina, etc.

- 8) Accesorios - No instale este producto en un carro, soporte, trípode o mesa inestables. El grabador de videocassettes podría caerse, causando serias lesiones a un niño o adulto, resultando también severamente dañado. Uselo sólo en un carro, soporte, trípode o mesa recomendados por el fabricante, o vendidos con el producto. Toda instalación del producto deberán hacerse de acuerdo a las instrucciones del fabricante, empleando los accesorios de instalación recomendados por el mismo.

ADVERTENCIA SOBRE EL USO DE CARROS PORTÁTILES



- 9) La combinación de producto y carro debe ser movida con cuidado. Las detenciones bruscas, la fuerza excesiva y las superficies dispares podrán hacer que el producto y el carro se vuelquen.
- 10) Ventilación - El gabinete del producto tiene ranuras y aberturas de ventilación que garantizan el funcionamiento confiable del producto, evitando que se recaliente. Estas aberturas no deberán ser bloquear las aberturas, nunca setúe el grabador de videocassettes encima de una cama, sofá, alfombra u otra superficie similar. El grabador de videocassettes no debe ser instalado en un mueble emportado, como una repisa para libros o bastidor, a menos que se pueda garantizar una ventilación adecuada, o cuando las instrucciones del fabricante así lo especifiquen.

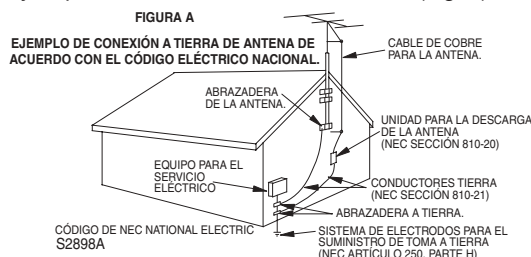
- 11) Alimentación - Este grabador de videocassettes sólo debe ser operado mediante el tipo de fuente de alimentación especificado en la etiqueta indicadora. Si no seta seturo del tipo de fuente de alimentación que tiene en su casa, consulte a su distribuidor o a la compañía de electricidad local. En el caso de grabador de diseñados para funcionar a pilas o con otras fuentes de alimentación, consulte el manual de instrucciones respectivo.

- 12) Conexión a tierra o polarización - Este producto está equipado con una clavija polarizada de corriente alterna (una clavija que tiene una espiga más ancha que la otra). Esta clavija solamente podrá ser insertada en el tomacorriente en una sola dirección. Esta es una medida de seguridad. Si no pudiera insertar completamente la clavija en el tomacorriente, vuelva a intentarlo invirtiendo la clavija. Si aún no fuera posible insertar la clavija, tome contacto con un electricista para que repare su tomacorriente obsoleto. No modifique las características de seguridad de la clavija polarizada.

- 13) Protección del cable de alimentación - Los cables de alimentación deberán ser tendidos de manera tal que la probabilidad de que sean pisados o aplastados por otros objetos sea mínima. Preste especial atención a las clavijas de los cables, a los receptáculos, y al punto por donde salen del producto.

- 14) Conexión Tierra de una Antena Exterior: Si una antena exterior o sistema de cable es conectado al aparato de

vídeo, asegúrese de que la antena o el cableado tenga conexión tierra para conseguir de esta manera una protección contra voltajes no deseados y cargas estáticas. El artículo 810 del Código de Electricidad Nacional ANSI/NFPA número 70, proporciona información acerca de la manera adecuada de conexiones a tierra de la estructura del mástil y la estructura soporte, sobre la unidad del cable del interior de cobre de antena, tamaño de los conductores tierra, ubicación de la unidad de descarga de la antena, conexión a los electrodos tierra, y requerimientos de los electrodos tierra (Fig. A).



- 15) Líneas de alimentación - Un antena exterior no debe ser instalada en la cercanía de líneas de alimentación aéreas ni de otros circuitos de potencial para iluminación eléctrica, o donde pueda caerse y hacer contacto con tales líneas o circuitos. Al instalar un sistema de antena exterior, enta mucho cuidado de no tocar tales líneas o circuitos de alimentación, ya que el contacto con ellos podría ser fatal.

- 16) Sobrecarga - No sobrecargue los tomacorrientes murales ni los cables de extensión, ya que esto podría causar incendios o descargas eléctricas.

- 17) Sobrecarga - No sobrecargue las tomas murales, los cables prolongadores ni los receptores integrales, ya que si lo hace pueden producirse incendios o descargas eléctricas.

- 18) Entrada de objetos y líquidos - Nunca introduzca objetos de ningún tipo por las aberturas de sete producto, ya que podría tocar peligrosos puntos de alta tensión o cortocircuitar partes, provocando incendios o descargas eléctricas. Nunca derrame ningún tipo de líquido sobre el producto.

- 19) Servicio - No intente reparar el producto usted mismo; al abrir o desmontar las cobiertas usted se expondrá a alta tensión y a otros peligros. Solicite todo servicio a personal calificado.

- 20) Daños que requieran reparación - En los siguientes casos, desconecte el producto del tomacorriente mural y llame a un técnico de servicio calificado:

- a) Cuando el cable de alimentación o la clavija estén dañados,
- b) Si se ha derramado líquido sobre la unidad, o si algún objeto ha caído dentro del producto,
- c) Si el producto ha sido expuesto a la lluvia o al agua,
- d) Cuando a pesar de haber sebuído las instrucciones de operación, el producto no funcione normalmente. Ajuste solamente los controles mencionados en el manual de instrucciones; el ajuste incorrecto de otros controles podrá causar daños a la unidad, la que por lo general requerirá de un prolongado trabajo de reparación (por un técnico calificado) para que sus condiciones normales de operación puedan ser restablecidas,
- e) Si el producto se ha caído o si el gabinete se ha dañado.
- f) Cuando el producto muestre un cambio notorio en su rendimiento.

- 21) Piezas de requesto - Cuando sea necesario reemplazar piezas, asegúrese de que el técnico de servicio emplee las piezas de requesto especificadas por el fabricante, o piezas que tengan las mismas características que las piezas originales. Las sustituciones no autorizadas podrán causar incendios, descargas eléctricas y otros problemas.

- 22) Revisión de seguridad - Al finalizar cualquier servicio de mantenimiento o reparación de este producto, solicítele al técnico que efectúe comprobaciones de seguridad para determinar si el producto se encuentra o no en condiciones óptimas de operación.

- 23) Calor - Este producto debe colocarse fuera del alcance de fuentes de calor tales como radiadores, rejillas de calefacción, estufas o cualquier otro producto destinado a producir calor, incluyendo los amplificadores.

Español

Español

Conexiones

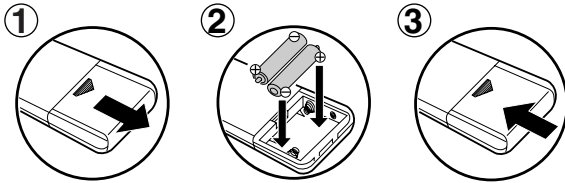
Consulte la "Conexión básica del televisor" en la página delantera antes de utilizar esta unidad.

Canal de salida RF

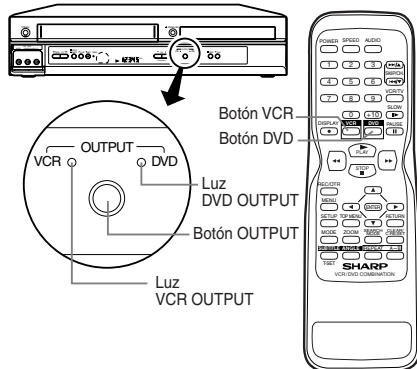
Si el canal 3 se está utilizando para una transmisión.

- 1) Programe su televisor al canal 4.
- 2) Inserte una cinta pregrabada en esta unidad.
- 3) Pulse el botón OUTPUT en el VCR/DVD para que se encienda la luz VCR OUTPUT.
 - Si no se enciende la luz "VCR" en la pantalla de esta unidad, pulse el botón VCR/TV en el mando a distancia.
- 4) Pulse una vez el botón PLAY.
- 5) Después de unos segundos, pulse el botón PLAY en el VCR/DVD durante 3 segundos.
 - El canal de salida RF cambiará del canal 3 al canal 4 y podrá ver una imagen reproducida.
 - Cuando no aparezca una imagen en la pantalla del televisor, repita el paso 4.
- 6) Pulse el botón STOP para parar la reproducción.

Instalación de las pilas del mando a distancia



Conmutación VCR/DVD



MODO VCR

Pulse el **botón VCR** en el mando a distancia. (Compruebe que está encendida la luz VCR OUTPUT.)

MODO DVD

Pulse el **botón DVD** en el mando a distancia. (Compruebe que está encendida la luz DVD OUTPUT.)

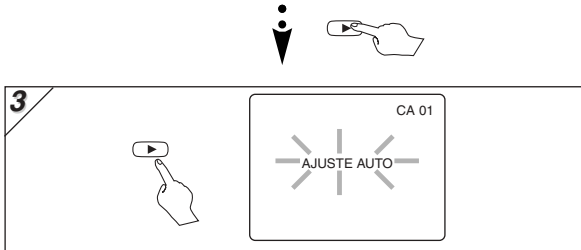
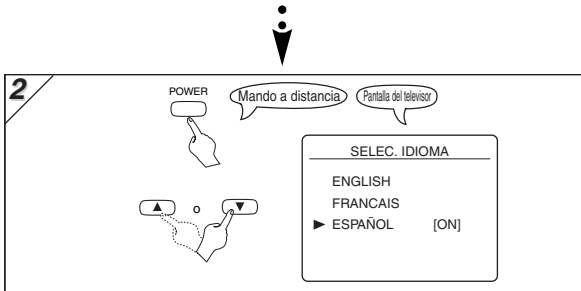
Consejo

- Si pulsa sólo el **botón OUTPUT** en el panel frontal NO conmuta el modo del mando a distancia. DEBE seleccionar también el modo correcto en el mando a distancia.

Activación de la unidad por primera vez



- 1 Encienda el televisor y sintonice al canal 3.
 - Si el canal 3 se está utilizando para una transmisión, vea la sección "Canal de salida RF".



Conecta el cable de la caja de canales de cable o la caja de satélite en la toma ANT IN de VCR/DVD?

Si Pulse el botón MENU para salir.

No Espere unos minutos.

Después del escaneo

- El sintonizador se detiene en el canal memorizado más abajo.
- Puede seleccionar sólo los canales memorizados en esta unidad con los botones SKIP/CH (▲/▼).
- Si aparece de nuevo "AJUSTE AUTO" en la pantalla del televisor, compruebe las conexiones de los cables y luego pulse otra vez el botón ►.

Ajuste del reloj



1

MENU

PROGRAMAR [OFF]
 AUTOREPETIR [OFF]
 AJUSTE DE RELOJ
 SELEC. IDIOMA
 SALIDA DEL AUDIO
 TV ESTEREO [ON]
 SAP

• Si no se ha ajustado el reloj, aparece la pantalla AJUSTE DE RELOJ cuando pulse el botón MENU. En este caso, vaya al paso (2).

2

AJUSTE DE RELOJ

MES DIA AÑO
 03 / 15 2004

HORA MINUTO AM/PM
 05 : 40

Selecione el mes actual

3

AJUSTE DE RELOJ

MES DIA AÑO
 03 / 15 2004

HORA MINUTO AM/PM
 05 : 40

Selecione el día actual

4

AJUSTE DE RELOJ

MES DIA AÑO
 03 / 15 2004

HORA MINUTO AM/PM
 05 : 40

Selecione el año actual

5

AJUSTE DE RELOJ

MES DIA AÑO
 03 / 15 LUN 2004

HORA MINUTO AM/PM
 05 : 40

Selecione la hora actual

6

AJUSTE DE RELOJ

MES DIA AÑO
 03 / 15 LUN 2004

HORA MINUTO AM/PM
 05 : 40

Selecione los minutos actuales

7

AJUSTE DE RELOJ

MES DIA AÑO
 03 / 15 LUN 2004

HORA MINUTO AM/PM
 05 : 40

Selecione "AM" o "PM".

8 Para salir de la pantalla AJUSTE DE RELOJ.

Reproducción de la grabadora de vídeo

Antes: Encienda el televisor y cambie al canal 3.
 • Si el canal 3 se está utilizando para una transmisión, vea la sección "Canal de salida RF".



1

2

Mando a distancia Mando al video

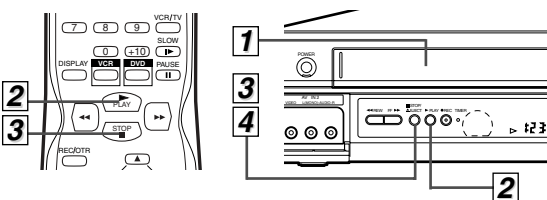
PLAY REPRODUCIR

3

STOP PARAR

4

[VCR/DVD] STORE/EJECT EXPULSAR



Reproducción de DVD/CD

Antes: Encienda el televisor, amplificador y otros equipos que puedan estar conectados a esta unidad. Asegúrese que el televisor y el sintonizador de audio (de venta en los comercios) están en el canal correcto.



1

POWER [VCR/DVD] OPEN/CLOSE

2

3

Mando a distancia Mando al video

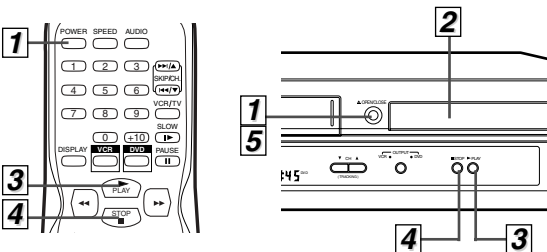
PLAY

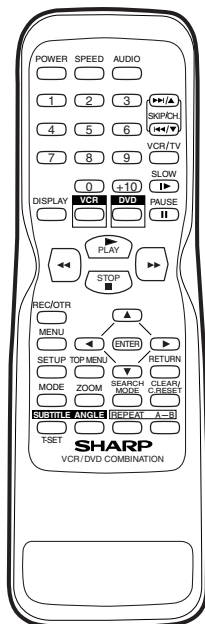
4

STOP

5

[VCR/DVD] OPEN/CLOSE





Botón (Orden alfabético)	Modo DVD			Modo de grabadora de vídeo
	Disco/cinta	DVD	CD MP3	VCR
1 2 3 4 5 6 7 8 9 0 +10	• Para seleccionar directamente el capítulo o el título	• Para seleccionar directamente la canción	• Para seleccionar el canal • El botón +10 no tiene efecto en el modo de grabadora de vídeo	
◀ ▶	• Para buscar en avance/retroceso en un disco • Para empezar la reproducción en avance/retroceso lento durante el modo de pausa	• Para buscar en avance/retroceso en un disco	• Para el avance/retroceso de una cinta	
▲ ▼ ◀ ▶ ENTER	• Para mover el cursor y determinar su posición	• Para mover el curso y determinar su posición	• Para seleccionar un ítem en el menú de la grabadora de vídeo • Para avanzar al siguiente menú de la grabadora de vídeo • Para volver un paso durante el ajuste del reloj y temporizador	
A-B	• Para repetir entre los puntos A y B elegidos	• Para repetir entre los puntos A y B elegidos (CD)	—	
ANGLE	• Para seleccionar los ángulos de la cámara en un disco	—	—	
AUDIO	• Para seleccionar el idioma de audio en un disco	• Para seleccionar ESTÉREO, L-CH o R-CH (CD)	—	
CLEAR/C.RESET	• Para borrar los marcadores • Para borrar los números entrados incorrectamente	• Para borrar los marcadores (CD) • Para retirar el número de estado en la entrada de programa • Para borrar los números entrados incorrectamente	• Para salir del menú de la grabadora de vídeo • Para reponer el contador de cinta	
DISPLAY	• Para indicar el modo de disco actual	• Para indicar el modo de disco actual	• Para indicar la hora actual, contador de cinta y canal	
DVD	• Para seleccionar el modo de salida de DVD • Para activar el mando a distancia en el modo DVD	• Para seleccionar el modo de salida de DVD • Para activar el mando a distancia en el modo DVD	—	
MENU	• Para llamar el menú en un disco	• Para llamar el menú MP3 (MP3)	• Para llamar el menú de la grabadora de vídeo	
MODE	• Para activar/desactivar el nivel del negro • Para activar/desactivar el envolvente virtual • Para activar/desactivar el reproducción rápido	• Para disponer el orden de reproducción o la reproducción aleatoria • Para activar/desactivar el envolvente virtual	—	
PAUSE	• Para hacer una pausa de reproducción del disco • Para avanzar la reproducción un cuadro a la vez	• Para hacer una pausa en la reproducción del disco	• Para hacer una pausa de la reproducción o grabación de la cinta • Para avanzar la reproducción un cuadro a la vez	
▶	• Para empezar la reproducción del disco	• Para empezar la reproducción del disco	• Para empezar la reproducción de la cinta	
POWER	• Para activar o desactivar la unidad	• Para activar o desactivar la unidad	• Para activar o desactivar la unidad	
REC/OVR	—	—	• Para empezar una grabación o una grabación de Vn-Toque	
REPEAT	• Para reproducir repetidamente un capítulo o título	• Para reproducir repetidamente una canción o disco (CD) • Para reproducir repetidamente una canción, grupo o disco (MP3)	—	
RETURN	• Para volver a la operación previa en el menú de programación de DVD	• Para volver a la operación previa en el menú de programación de DVD	—	
SEARCH MODE	• Para buscar un capítulo, título u hora • Para volver rápidamente a un lugar o disco • Buscar los marcadores	• Para buscar una canción • Para buscar la hora (CD) • Para volver rápidamente a un lugar o disco • Buscar los marcadores (CD)	• Para llamar el menú de búsqueda de índice u hora	
SETUP	• Para llamar el menú de programación de DVD	• Para llamar el menú de programación de DVD	—	
SKIP/CH. SKIP/CH.	• Para saltar capítulos	• Para saltar canciones	• Para cambiar de canal • Para ajustar manualmente el seguimiento durante la reproducción	
SLOW	—	—	• Para ver la cinta en cámara lenta	
SPEED	—	—	• Para seleccionar la velocidad de grabación	
STOP	• Para parar la grabación	• Para parar la grabación	• Para parar la reproducción o grabación	
SUBTITLE FSET	• Para seleccionar subtítulos en un disco	—	• Para poner la grabadora de vídeo en el modo de espera para una grabación con temporizador	
TOP MENU	• Para llamar el menú superior en un disco	• Para volver al archivo superior de la jerarquía más alta en el programa y menú MP3 (MP3)	—	
VCR	—	—	• Para seleccionar el modo de salida de la grabadora de vídeo • Para activar el mando a distancia en el modo de la grabadora de vídeo	
VCR/TV	• Para seleccionar la posición de DVD o posición del televisor	• Para seleccionar la posición de CD/MP3 o la posición del televisor	• Para seleccionar la posición de la grabadora de vídeo o posición del televisor	
ZOOM	• Para ampliar parte de la imagen (x2/x4)	—	—	

CONSUMER LIMITED WARRANTY

(Valid for warranty service in the U.S. only)

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the Product nor to the additional excluded item(s) set forth below nor to any Product the exterior of which has been damaged or defaced, which has been subjected to improper voltage or other misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to the servicer.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH BELOW. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of Sharp.

The warranties described herein shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall Sharp be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer. Nor shall Sharp be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Model Specific Section

Your Product Model Number & Description: DV-NC150U VCR/DVD Combination

(Be sure to have this information available when you need service for your Product.)

Warranty Period for this Product: One (1) year parts and ninety (90) days labor from date of purchase.

Additional Item(s) Excluded from warranty Coverage (if any): Non-rechargeable batteries.

Where to Obtain Service: Call Sharp Electronics corporation toll free at 1-800-BE-SHARP for instructions on how to obtain service on your VCR/DVD combination.

What to do to Obtain Service: Ship your product, prepaid, as per the instruction given by the Sharp representative at the toll free number (1-800-BE-SHARP). BE sure to have your proof of purchase available. Be sure to ship the product securely packaged and insured against shipping damage.

TO OBTAIN SUPPLY, ACCESSORY OR PRODUCT INFORMATION, GO TO OUR WEBSITE AT www.sharppusa.com OR CALL 1-800-BE-SHARP.

SHARP®

SHARP ELECTRONICS CORPORATION

Sharp Plaza, Mahwah, New Jersey 07430-2135

SHARP CORPORATION

Osaka, Japan

9HS1VMN20342
H9641UD★★★★
1VMN20342

Printed in China

Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>