

COMPACT CISC





DOLBY Surround



DVD VIDEO PLAYER & VIDEO CASSETTE RECORDER

cts

SD-V592SU SD-V596SU OWNER'S MANUAL

VHS Hi-Fi SQPB

Before connecting, operating or adjusting this product, please read this instruction booklet carefully and completely.



Safety Precautions



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



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

WARNING: TO REDUCE THE RISK OF FIRE OR ELEC-TRIC SHOCK, DO NOT EXPOSE THIS APPARATUS 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.

WARNING: Do not install this equipment in a confined space such as a book case or similar unit.

NOTE TO CABLE/TV INSTALLER: This reminder is provided to call the cable TV system installer's attention to Article 820-40 of the National Electric Code (U.S.A.). The code 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 the cable entry as practical.

CAUTION:

This DVD+VCR employs a Laser System.

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference should the unit require maintenance, contact an authorized service location.

Use of controls, adjustments, or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when open. DO NOT STARE INTO BEAM.

CAUTION: The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

REGULATORY INFORMATION: FCC Part 15

This product 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 when the product is operated in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product 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 product and receiver.
- Connect the product 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.

NOTES ON COPYRIGHTS:

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

This product features the copy protection function developed by Macrovision. Copy protection signals are recorded on some discs. When recording and playing the pictures of these discs on a VCR, picture noise will appear.

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.

Some TVs or monitors are equipped with component video inputs that are capable of reproducing a progressively scanned video signal. Connecting to these inputs allows you to view the highest quality pictures with less flicker. 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+VCR, please contact our Customer Service Center.

SERIAL NUMBER: The serial number is found on the back of this unit. This number is unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase.

Model No.			
Serial No.			



IMPORTANT SAFETY INSTRUCTIONS

CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS IN THIS OWNER'S MANUAL. AND THOSE MARKED ON THE PRODUCT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This product has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this product will protect you if you observe the following procedures for installation, use, and servicing.

This product does not contain any parts that can be repaired by the user.

DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

- Read these instructions. All these safety and operating instructions should be read before the product is operated.
- 2. Keep these instructions. The safety, operating and use instructions should be retained for future reference.
- **3. Heed all warnings.** All warnings on the product and in the operating instructions should be adhered to.
- 4. Follow all instructions. All operating and use instructions should be followed.
- 5. Do not use this product near water. For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; or near a swimming pool; and other areas located near water.
- Clean only with dry cloth. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. -Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over-heating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
- 11. Only use attachments/accessories specified by the manufacturer.



- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with apparatus. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.
- 13. Unplug this product during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.



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About the symbols for instructions

 $\underline{\bigwedge}$ Indicates hazards likely to cause harm to the unit itself or other material damage.

Note Indicates special operating features of this unit.

TiP Indicates tips and hints for making the task easier.

Before Use

Playable Discs

DVD (8 cm/12 cm disc)
Video CD (VCD) (8 cm / 12 cm disc)
Audio CD (8 cm/12 cm disc)

In addition, this unit can plays DVD -R, DVD +R, DVD -RW, DVD +RW, SVCD, and CD-R / CD-RW that contains audio titles, MP3, WMA, and/or JPEG files.



This indicates a product feature that is capable of playing DVD-RW discs recorded with Video Recording format.

Note:

- Depending on the conditions of the recording equipment or the CD-R/RW disc itself, some CD-R/RW discs cannot be played on the unit.
- The unit cannot play discs that contain data other than MP3 and CD-DA data.
- Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
- Do not use irregularly shaped CDs (e.g., heartshaped or octagonal). It may result in malfunctions.
- This unit only support SVCD stream 1 audio.

Notes on DVDs and Video CDs

Some playback operations of DVDs and Video CDs may be intentionally fixed by software manufacturers. As this unit plays DVDs and Video CDs according to disc content designed by the software manufacturer, some playback features of the unit may not be available, or other functions may be added.

Refer also to the instructions supplied with the DVDs and Video CDs. Some DVDs made for business purposes may not be playable on this unit.

Regional code of the DVD+VCR and DVDs

This DVD+VCR is designed and manufactured for playback of region 1 encoded DVD software. The region code on the labels of some DVD



discs indicates which type of DVD+VCR can play those discs. This unit can play only DVD discs labeled 1 or ALL. If you try to play any other discs, the message "Check Regional Code" will appear on the TV screen. Some DVD discs may not have a region code label even though their playback is prohibited by area limits.

Notes on DTS-encoded CDs

When playing DTS-encoded CDs, excessive noise may be exhibited from the analog stereo output. To avoid possible damage to the audio system, turn down the volume before playing back such discs, adjust the volume gradually, and keep the volume level low. To enjoy DTS Digital Surround[™] playback, an external 5.1 channel DTS Digital Surround[™] decoder system must be connected to the digital output of the unit.

Disc-related terms

Title (DVD only)

The main film content or accompanying feature content or music album.

Each title is assigned a title reference number enabling you to locate it easily.

Chapter (DVD only)

Sections of a picture or a musical piece that are smaller than titles. A title is composed of one or several chapters. Each chapter is assigned a chapter number to enable you to locate the chapter you want. Depending on the disc, chapters may not be recorded.

Track (Video CD and audio CD only)

Sections of a picture or a musical piece on a video CD or an audio CD. Each track is assigned a track number, enabling you to locate the track you want.

Scene

On a video CD with PBC (Playback control) functions, moving pictures and still pictures are divided into sections called "Scenes". Each scene is displayed in the menu screen and assigned a scene number, enabling you to locate the scene you want.

A scene is composed of one or several tracks.

Types of video CDs

There are two types of video CDs:

Video CDs equipped with PBC (Version 2.0)

PBC (Playback control) functions allow you to interact with the system via menus, search functions, or other typical computer-like operations. Moreover, still pictures of high resolution can be played if they are included in the disc.

Video CDs not equipped with PBC (Version 1.1)

Operated in the same way as audio CDs, these discs allow playback of video pictures as well as sound, but they are not equipped with PBC.

Remote control battery installation



Detach the battery cover on the rear of the remote control, and insert two R03 (size AAA) batteries with ● and ● aligned correctly.

✓ Caution

Do not mix old and new batteries. Never mix different types of batteries (standard, alkaline, etc.).

Remote Control Operation Range

Point the remote control at the remote sensor and press the buttons.

- Distance: About 23 ft (7 m) from the front of the remote sensor
- Angle: About 30° in each direction of the front of the remote sensor

Before Use (Continued)

Precautions

Handling the unit

When shipping the unit

The original shipping carton and packing materials come in handy. For maximum protection, re-pack the unit as it was originally packed at the factory.

When setting the unit

The picture and sound of a nearby TV or radio may be distorted during playback. In this case, position the unit away from the TV or radio, or turn off the unit after removing the disc.

To keep the surface clean

Do not use volatile liquids, such as insecticide spray, near the unit. Do not leave rubber of plastic products in contact with the unit for a long period of time. They will leave marks on the surface.

Cleaning the unit

To clean the cabinet

Use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents, such as alcohol, benzine, or thinner, as these might damage the surface of the unit.

To obtain a clear picture

The DVD+VCR is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn down, the picture quality will be poor.

Regular inspection and maintenance are recommended after every 1,000 hours of use. (This depends on the operating environment.)

For details, please contact your nearest dealer.

Moisture Condensation

Never operate the DVD+VCR immediately after moving it from a cold location to a warm location. Leave it for two or three hours without operating it. If you use the DVD+VCR in such a situation, it may damage discs/tapes and internal parts.

Notes on Discs

Handling discs

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints will not get on the surface.

Do not stick paper or tape on the disc.





Storing discs

After playing, store the disc in its case.

Do not expose the disc to direct sunlight or sources of heat, or leave it in a parked car exposed to direct sunlight, as there may be a considerable temperature increase inside the car.

Cleaning discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.



Do not use strong solvents such as alcohol, benzine, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

About Symbols

About the \odot symbol display

" \odot " may appear on the TV screen during operation. This icon means the function explained in this owner's manual is not permitted by the DVD+VCR or is not available on that specific DVD video disc.

About the disc symbols for instructions

A section whose title has one of the following symbol is applicable only to the disc represented by the symbol.



- VCD2.0 Video CDs with the PBC (playback control) function.
- VCD1.1 Video CDs without the PBC (playback control) function.
- CD Audio CDs.
- MP3 MP3 disc.
- WMA WMA disc.
- JPEG JPEG disc.

Selecting the Viewing Source

You must select one of your output sources (DVD or VCR) to view on the TV screen.

• If you want to view DVD deck output source: Press DVD/VCR SELECT until DVD indicator in the display window lights and output source of DVD deck is viewed on the TV screen.

If you want to view VCR deck output source:

Press DVD/VCR SELECT until VCR indicator in the display window lights and output source of VCR deck is viewed on the TV screen.

Notes :

- If you insert a disc while the DVD+VCR is in the VCR mode, the DVD+VCR will switch to DVD mode automatically.
- If you insert a cassette tape without prevention tab while the DVD+VCR is in the DVD mode, the DVD+VCR will switch to VCR mode automatically.



Front Panel



INTRODUCTION

Rewinds the tape during the

Display Window





INTRODUCTION

Rear Panel



 \triangle

Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.



Remote Control

POWER

Switches DVD+VCR ON and OFF.

INPUT SELECT

To select the VCR deck's source (Tuner, LINE 1, or LINE 2).

CLK/CNT, DISPLAY

Accesses On-Screen display. Switches among the clock, tape counter and tape remaining modes on the display.

DVD/VCR •

To control DVD+VCR operating. TV •

To control multi-brand TV.

CABLE BOX • To control CABLE BOX.

0-9 numerical buttons Selects numbered options in a menu.

TOP MENU •

Displays the disc's Title menu, if available.

MENU • Accesses menu on a DVD disc.

ATR/SUBTITLE •

- Adjusts automatically the tape's picture onscreen. - Selects a subtitle language.

AUDIO •

Selects an audio language (DVD) or an

audio channel (VCD). ANGLE •

Selects a DVD camera angle if available.

SKIP I

Skip to beginning of current chapter or track, press twice in quick successions to go to previous chapter or track.

SKIP >> •

Skip to next chapter or track.

SETUP, VCR MENU Accesses or removes DVD setup menu and VCR menu.

TV/VCR

To view channels selected by the VCR tuner or by the TV tuner.

</▶/▲/▼ (left/right/up/down) ●</pre>

- Selects an option in the menu - CH/TRK (+/-): Selects channel of VCR. Adjusts manually the tape's picture onscreen - VOL +/-: Adjusts TV's volume.

ENTER •

Note:

- Acknowledges menu selection. - Displays functions on the TV screen.

EJECT, OPEN/CLOSE

Ejects the tape in the VCR deck.

Opens and closes the disc tray.

PROGRAM

Accesses or removes Program menu.

COUNTER RESET, CLEAR

- Resets tape counter to M 0:00:00 Removes a track number on the program menu or a mark on the MARKER SEARCH menu.

BLANK SEARCH, ZOOM

- Finds end points of recording.
- Zoom function.

• RETURN

- Removes the setup menu.
- Displays the menu of a video CD with PBC

INSTANT REPLAY

Replays through 10 seconds of playback.

PLAY

Starts playback.

• REW

Rewinds the tape during the STOP mode or for fast reverse picture search. • FF

Advances the tape during the STOP mode or for fast forward picture search. SLOW

Forward slow playback of tape.

STOP

Stops playback.

PAUSE/STEP

- Pause playback or recording.

Press repeatedly for frame-by-frame playback.

• REPEAT

Repeat chapter, track, title, all.

- A-B REPEAT, SP/SLP
- Repeats sequence.
- Selects recording speed

MARKER

- Marks any point during playback.
- VISS. SEARCH
- Enters the VISS function mode.
- Displays MARKER SEARCH menu.
- RANDOM, INSTANT SKIP
- Plays tracks in random order.
- Fast forwards picture search through -30 seconds of recording.

REC/OTR

Records normally or activates One touch Timer Recording with repeated presses

DVD/VCR SELECT button

Select the output source (DVD or VCR) to view on the TV screen. The DVD/VCR indicator on the Front Panel will light up accordingly to the mode at each press.



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5) Ĝ

8 Ö





This remote control uses the

functions (ex. PLAY).

same buttons for VCR and DVD

Connections

TiP :

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the DVD+VCR. Use connections described on pages 11-13.
- Please refer to the manuals of your TV, VCR, Stereo System or other devices as necessary to make the best connections.
- For better sound reproduction, connect the DVD+VCR's DVD/VCR AUDIO OUT jack to the audio in jacks of your amplifier, receiver, stereo or audio/video equipment. See Optional, Preferred TV Connections on page 12-13.

Caution

- When you connect the DVD+VCR to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- Make sure the DVD+VCR is connected directly to the TV. Tune the TV to the correct video input channel.
- Do not connect the DVD+VCR's DVD/VCR AUDIO OUT jack to the phono in jack (record deck) of your audio system.
- Do not connect your DVD+VCR via your VCR. The DVD image could be distorted by the copy protection system.

Connecting Antenna/Cable TV to DVD+VCR

Disconnect the antenna leads from the rear of the TV.

Identify the type of cable from your antenna. If it is a round cable as illustrated, it is a 75 ohm coaxial antenna cable. This cable will connect directly to the jack marked ANT.IN on your DVD+VCR.

TiP :

If your antenna lead wire is a flat type antenna cable, connect it to an Antenna Adaptor (300-ohm to 75-ohm) (not supplied) and slip the Adaptor onto the ANT.IN jack. The Adaptor does not screw on to the DVD+VCR, it just slips over the jack.



Rear of DVD+VCR

Without Cable Box

If your cable wire is connected to your TV without a converter or descrambler box, unscrew the wire from your TV and attach it to the ANT.IN jack on the DVD+VCR. Use the supplied round coaxial cable to connect between the DVD+VCR's RF.OUT jack and the 75 ohm antenna input jack on the TV. With this connection, you can receive all midband, super band, and hyperband channels.

With Cable Box

If a converter is required in your cable system, follow the instruction below:

The cable hookup permits both TV and DVD+VCR operation. To view or record CATV channel

1 Tune the TV to the DVD+VCR output channel (CH 3 or 4).

- 2 Set the DVD+VCR channel selector to the output channel of the Cable Converter box by pressing the CH/TRK (+/-) or number (0-9) of your DVD+VCR. (Example: CH3)
- **3** Select the channel to view at the Cable Converter Box.

Notes :

- With this connection, you CANNOT record one program while viewing another.
- If you are using a cable box to tune channels, it is not necessary to do Auto Channel Programming (Auto Channel Set) as indicated on page 15.



Rear of DVD+VCR

Connections (Continued)

Basic TV Connections

· Make one of the following connections, depending on the capabilities of your existing equipment.

RF coaxial connection

Connect the RF.OUT jack on the DVD+VCR to the antenna in jack on the TV using the 75-ohm Coaxial Cable supplied (R).

Note:

If you use this connection, tune the TV to the DVD+VCR's RF output channel (CH 3 or 4).

How to set the DVD+VCR's RF output channel

1. When the DVD+VCR is turned off, press and hold REW << or FWD >> on the front panel for about five seconds.

It will turn itself on and "RF03" or "RF04" appears in the display window.

- 2. Press REW << or FWD >> on the front panel or CH/TRK (+/-) on the remote control to change the RF output channel (CH 03 or CH 04).
- 3. Turn off and on the DVD+VCR.
- 4. Press the TV CH to 3 or 4 depending on the RF output channel you had selected. Now you can watch the DVD+VCR playback on CH3 or CH4 of your TV.

Audio/Video connection

- Connect the DVD/VCR VIDEO OUT jack on the
- DVD+VCR to the video in jack on the TV using the video cable supplied (V).

Connect the Left and Right DVD/VCR AUDIO OUT jacks on the DVD+VCR to the audio left/right in jacks on the TV (A1) using the supplied audio cables.

Notes:

- If you use this connection, set the TV's source selector to VIDEO.
- For DVD/VCR VIDEO OUT jack connection, resolution must be set to 480i or 480p by pressing RESOLUTION on the front panel, however DVD/VCR VIDEO OUT is always at 480i standard resolution.
- HDMI mode must be set to OFF for DVD/VCR VIDEO OUT jack connection.





Optional, Preferred TV Connections

Note:

You can ONLY watch and listen to DVD playback through the connections shown below.

S-Video connection



Connect the S-VIDEO OUT jack on the DVD+VCR to the S-Video in jack on the TV using the optional S-Video cable (S) (not supplied).

Connect the Left and Right AUDIO OUT jacks of the DVD+VCR to the audio left/right in jacks on the

TV using the supplied audio cables (A2).

Notes:

- For S-Video connection, resolution must be set to 480i or 480p by pressing RESOLUTION on the front panel, however S-VIDEO OUT is always at 480i standard resolution.
- HDMI mode must be set to OFF for S-Video connection.

Component Video (Color Stream[®]) / Progressive Scan (ColorStream[®] pro) connection

- If your television is a high-definition or "digital ready" television, you may take advantage of the DVD+VCR's progressive scan output for the highest video resolution possible.
- If your TV does not accept the Progressive Scan format, the picture will appear scrambled if you try Progressive Scan on the DVD+VCR.
- Connect the COMPONENT / PROGRESSIVE SCAN VIDEO OUT jacks on the DVD+VCR to the corresponding in jacks on the TV using the optional Y Pb Pr cables (C) (not supplied).

Connect the Left and Right AUDIO OUT jacks of the DVD+VCR to the audio left/right in jacks on the TV (A2) using the supplied audio cables.

Notes :

- You can change the resolution (480i, 480p, 720p, 1080i) for the component/progressive scan video output by pressing RESOLUTION on the front panel.
- For 720p and 1080i resolution, only non-copy protected discs can be played back. If the disc is copy protected, it will be auto down-scaling to 480p resolution.
- HDMI mode must be set to OFF for Component video connections



Rear of DVD+VCR



PREPARATION

Connections (Continued)

Optional, Preferred TV Connections

If you have a HDMI TV or monitor, you can connect it to this DVD+VCR using a HDMI cable.

HDMI connection

Connect the HDMI OUT jack on the DVD+VCR to the HDMI jack on a HDMI compatible TV or monitor (H).

2 Set the TV's source to HDMI (refer to TV's Owner's manual).

PIn stop mode, select HDMI mode by pressing HDMI on the front panel.

"hdmi" will appear on the display window.

Notes :

 The arrow on the cable connector body should be face up for correct alignment with the connector on the DVD+VCR.



 When you use HDMI, the other connections (Yellow VIDEO OUT, S-Video and Component Video (Y Pb Pr)) does not work.

Tip :

When you use HDMI connection, you can change the resolution (480p, 720p, 1080i) for the HDMI output by pressing RESOLUTION on the front panel. Software incompatibility between this unit and TV/monitor may result in getting only 2 options. 480i is not available. You can only change the resolution within your TV's and Monitor's resolution capabilities.

- For DVD/VCR VIDEO OUT connection, a message will appear if you select an incompatible resolution.
- For S-VIDEO OUT connection, black and white scramble signal will appear if you select an incompatible resolution.



Rear of DVD+VCR

About HDMI

HDMI (High Definition Multimedia Interface) supports both video and audio on a single digital connection for use with DVD players, Set-Top boxes, and other AV devices.

HDMI was developed to provide the technologies of HDCP (High Definition Contents Protection). HDCP is used to protect digital content transmitted and received.

HDMI has the capability to support standard, enhanced, or high-definition video plus standard to multi-channel surround-sound audio, HDMI features include uncompressed digital video, a bandwidth of up to 5 gigabytes per second, one connector (instead of several cables and connectors), and communication between the AV source and AV devices such as DTVs.

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI licensing LLC.

Connections (Continued)

Optional, Preferred TV Connections

Note:

You can ONLY listen to DVD playback using COAXIAL (X), OPTICAL (O) and AUDIO OUT (A2) connections. The tuner and VCR will still be heard through the RF.OUT (R) or DVD/VCR AUDIO OUT (A1) jack. (See page 12.)

Connecting to an amplifier equipped with two channel analog stereo or Dolby Surround

Connect the Left and Right AUDIO OUT (or DVD/VCR AUDIO OUT) jacks on the DVD+VCR to the audio left and right in jacks on your amplifier, receiver, or stereo system using the audio cables (A1, A2).

Connecting to an amplifier equipped with two channel digital stereo (PCM) or to an Audio/Video receiver equipped with a multi-channel decoder (Dolby Digital[™], MPEG 2, or DTS)

- Connect one of the DVD+VCR's DIGITAL AUDIO OUT jacks (OPTICAL O or COAXIAL X) to the corresponding in jack on your amplifier. Use an optional digital (optical O or coaxial X) audio cable not supplied.
- **2** You will need to activate the DVD+VCR's digital output. (See *Digital Audio Output* on page 20).

Digital Multi-channel sound

A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video receiver that supports one or more of the audio formats supported by your DVD+VCR (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

A Caution:

Due to the DTS Licensing agreement, the digital output will be in DTS digital out when DTS audio stream is selected.

Notes:

- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- Six Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder.
- To see the audio format of the current DVD in the onscreen display, press AUDIO.

Rear of DVD+VCR



Amplifier (Receiver)

Accessory Audio/Video (A/V) Connections to DVD+VCR

Connect the VCR IN LINE 1 or LINE IN 2 jacks on the DVD+VCR to the audio/video out jacks on your accessory component, using the audio/video cables.



Before Operation - VCR Part

On-Screen Display (OSD)

Select VCR as the viewing source by pressing DVD/VCR SELECT until the VCR indicator appears in the display window.

Some of these functions will be displayed every time the VCR is operated.



• TAPE SPEED DISPLAY

Shows the current tape speed.

- FUNCTION DISPLAY
- Indicates the current function.

HI-FI DISPLAY

Indicates when this unit is playing back tape recorded with Hi-Fi

O CHANNEL DISPLAY

Indicates the selected channel (or LINE1, LINE2).

• STEREO/SAP DISPLAY (MONO is not displayed) Shows the type of audio signal received by the VCR tuner.

® DATE DISPLAY

Shows the current date. (Month/Date/Day of the week format)

@ CLOCK/COUNT/REMAIN DISPLAY

Shows the current time, the tape counter and remaining time on the tape.

Each press of the ENTER changes the TV screen in the following sequence.



Notes :

- The function displays can be seen displayed on the TV screen for 5 seconds.
- The clock (or tape counter, tape remaining) mode will continue until you press ENTER.
- The tape counter and the remaining tape length indicator appear only when a cassette is inserted. Also, the remaining tape length indicator appears after any tape operation.

Easy Information

If the Extended Data Service (XDS) signals are provided along with normal TV signal in your area or during playback of a tape recorded with Extended Data Service (XDS) signals, the station ID, program title and program details are shown on the TV screen. When viewing a channel with Extended Data Service (XDS) signals, press ENTER then the station ID will appear on the TV screen. Press ENTER again and the program details will appear on the TV screen. When viewing a tape recorded with Extended Data Service (XDS) signals, press ENTER twice then the program title and program details will appear on the TV screen.

Program Details

LENGTH: Indicates the run length of a program. TIME REMAINING: Indicates the remaining time of a program.

RATING: Indicates the rating of the current program (N/A, G, PG, PG-13, R, NC-17, X and Not Rated). The rating N/A means that the motion picture ratings are not applicable to this program.



(Station ID)

Setting the On-Screen Display

The SETUP, clock setting, and timer recordings are accessed conveniently with On-Screen Menu Displays that lead you through each step. The following pages describe the On-screen selections to be set.

Menu Selection

Your VCR allows remote control adjustment of several features

Press VCR MENU and the MAIN menu will appear.

Select the desired menu with ▲/▼ button and then press ENTER.

MAIN MENU



Notes:

Menus remain on-screen for 3 minutes.

Press VCR MENU when finished.



Before Operation - VCR Part (Continued)

Setting the VCR Setup Menu

Press VCR MENU and the MAIN menu will appear.

2 Press \blacktriangle to select the SETUP menu, then press ENTER.

The SETUP menu will appear.



Press ▲/▼ to choose a desired option on the SETUP menu. Then press ◄/► to choose a desired setting.

FUNCTION OSD

The on-screen display of this DVD+VCR can be turned on or off.

 FUNCTION OSD can be switched between ON and OFF by pressing ◄/►.

AUDIO MODE

The DVD+VCR has two separate audio playback systems, the high quality VHS Hi-Fi system and standard NORMAL mono system. The same audio is generally recorded on both systems. The VHS Hi-Fi system plays on separate (left and right) channels, and the NORMAL system plays monaural sound. The normal track is always played so the cassette can be played on a DVD+VCR that does not have VHS Hi-Fi.

 AUDIO MODE can be switched between HI-FI and NORMAL by pressing ◄/►.

BROADCAST TYPE (STEREO/SAP/MONO)

Multichannel Television Sound (MTS) carries stereo and/or Second Audio Program (SAP) bilingual signals. Set this display to the desired position when both MTS stereo and SAP signals are received. When only one of the MTS signal is received, the DVD+VCR automatically selects the corresponding receiving mode (Stereo or SAP) regardless of the selected position. For normal operation, the display should be in the STEREO position. The DVD+VCR will then record a STEREO program when available, and record a mono program IF the program is NOT IN STEREO.

For weak STEREO and/or SAP broadcasts, changing the display to mono may give clearer sound.

 BROADCAST TYPE can be switched among STEREO, SAP, and MONO by pressing ◄/►.

AUDIO OUTPUT (STEREO/LEFT/RIGHT)

Used during playback [when AUDIO MODE (HI-FI/NORMAL) is in HI-FI position] for selecting the audio output signals from the AUDIO OUT terminals (L ch and R ch), and RF.OUT. This display setting should normally be left in the stereo position, so that when a stereo tape is played, the stereo sound will be heard through the left and right channels. If a mono tape is played and the audio output is set to stereo, the same mono sound will be heard from both left and right channels.

 AUDIO OUTPUT can be switched among STEREO, LEFT, and RIGHT by pressing ◄/►.

Press VCR MENU when finished.

Channel Selection

This DVD+VCR is equipped with a frequency synthesized tuner capable of receiving up to 181 channels. These include VHF channels 2-13, UHF channels 14-69 and CATV channels 1-125.

Preparation:

 Connect the DVD+VCR to the desired type of antenna or cable TV system, as shown in Connecting Antenna/Cable TV to DVD+VCR on page 11.

AUTO CHANNEL PROGRAMMING

- Press VCR MENU and the MAIN menu will appear.
- Press A/V to select the TUNING menu, then press ENTER.

The TUNING menu will appear.



Press ▼ to choose the SOURCE SELECT option, then press </ > to select TUNER.

Press
Press
Prese text
Press
<

Press ▲/▼ to choose the AUTO CHANNEL SET option, then press ◀/► to set the channel.

• The tuner will automatically cycle through all available channels (TV/CATV) in the area and place them in the tuner's memory.

 After the AUTO CHANNEL SET is complete, the TUN-ING menu will hide and return to the TV screen automatically.

5 Make sure the TUNING BAND is set appropriately (TV or CATV).

- TV : If you are using a standard antenna to receive channels.
- CATV : If you are using basic cable to receive channels.
- Change the setting of TUNING BAND to check the TV channels.

Use CH/TRK (+/-) to cycle the DVD+VCR through the channels in memory.

TO ADD OR ERASE CHANNELS FROM MEMORY This feature allows you to add or erase channels from memory manually. In order to add or erase the aban

memory manually. In order to add or erase the channels, the SOURCE SELECT must be set to TUNER.

- Press ▼ to choose the CH. ADD/DEL option on the TUNING menu. Press
 to select a channel to add or erase.
- 2 Press ENTER to add or erase the channel. Repeat steps 1 and 2 to add or erase more channels.
- 3 Press VCR MENU to return to the TV screen.

Before Operation - VCR Part (Continued)

Setting the Clock

The DVD+VCR gives you two ways to set the time and date: the Auto Clock Feature or manually. The Auto Clock Feature enables the DVD+VCR to set up the clock when the DVD+VCR is turned off.

Things to know before starting

- The clock uses the 12-hour system. (Be sure to set AM and PM correctly.)
- The initial Clock Setting is JANUARY 1, 2004, 12:00 AM.

Auto Clock Set

The Auto Clock Set feature is set to ON at the factory. In the ON setting, the DVD+VCR looks for a channel carrying XDS (Extended Data Services) information. XDS updates the clock using the Coordinated Universal Time.

The Auto Clock Feature enables the DVD+VCR to set up the clock when the DVD+VCR is turned off.

Press VCR MENU and the MAIN menu will appear.

Press ▲/▼ to choose the CLOCK menu. Press ENTER and the CLOCK menu will appear.



Press ▼ to choose the AUTO CLOCK SET option. Press **∢/**► to choose ON.

The Auto Clock Set feature is set to ON at the factory. In the ON setting, the DVD+VCR looks for a channel carrying XDS (Extended Data Services) information. XDS updates the clock using the Coordinated Universal Time.

Press ▼ to choose the DAYLIGHT SAVINGS item.

Press ◄/► to choose AUTO, ON or OFF. If you choose AUTO, the VCR sets the clock using the DST information broadcast in the signal (channel). If you choose ON, the VCR sets the clock when the Daylight Saving Time is started and ended.

Press ▼ to choose the TIME ZONE item. Press ◀/▶ to choose the correct time zone (AUTO, EASTERN, CENTRAL, MOUNTAIN, PACIFIC, ALASKA or HAWAII).

If "AUTO" is selected as the time zone, the VCR sets the clock using the first Coordinated Universal Time information it finds in a broadcast signal.

Press VCR MENU when finished.

Turn off the DVD+VCR and the auto clock setting works.

Note:

There are cases where the TV station does not send or sends wrong date and/or time information and the DVD+VCR sets the incorrect time.

If this happens we recommend that you set the clock manually.

Manual Clock Set

Example: July 5, 2004 ; 2:15 AM



Press ▲/▼ to choose the CLOCK menu.
Press ENTER and the CLOCK menu will appear.

CLOCK		MONTH: JANUARY
GUUCK	-	DAY : 1 THU
PROGRAM		YEAR : 2004 TIME : 12:00 AM
		AUTO CLOCK SET : ON
TUNING		DAYLIGHT SAVINGS: AUTO
SETUP		TIME ZONE: AUTO
SELECT ENTER ENTER		SELECT ADJUST
TO EXIT PRESS MENU		TO EXIT PRESS MENU

Press ◄/► to choose the month.



Press ▼ to choose the DAY option. Use </ >

 Use
 Image: block of the law is the law

The day of the week will display automatically.

Press V to choose the YEAR option.

✓ Use ◄/► to choose the year.

- Press ▼ to choose the TIME option. Use ◀/▶ to choose the time. Press and hold ◀/▶ to advance clock continuously.
- Press ▼ to choose the DAYLIGHT SAVINGS item.

Use *◄/►* to choose AUTO, ON or OFF. If you choose AUTO, the VCR sets the clock using the DST information broadcast in the signal (channel). If you choose ON, the VCR sets the clock when the Daylight Saving Time is started and ended.





Note:

If setting the clock manually, "AUTO CLOCK SET" must set to "OFF".

If set to "ON", an incorrect date and/or time will be entered again when the DVD+VCR is turned off.

Before Operation - DVD Part

DVD On-Screen Display

Select DVD as the viewing source by pressing DVD/VCR SELECT until the DVD indicator appears in the display window.

You can display the general playback status on the TV screen. Some items can be changed using the menu. To use the on-screen display:

Press DISPLAY during playback.

Press ▲ / ▼ to select an item.

The selected item is highlighted.

Press ◀ / ► to change the setting. You can also use the number buttons

You can also use the number buttons if appropriate (e.g. inputting the title number). For some functions, press ENTER to execute the setting.

Notes:

- Some discs may not provide all of the features shown below.
- If no button is pressed for 10 seconds, the on-screen display disappears.

Playback Status/Restrictions

2	Title	Repeat	title
---	-------	--------	-------

- Repeat sequence
- Enter a Marker
- Marker Search menu
- Resume play from this point
 - S Action prohibited or not available

Example: On-Screen Display during playing DVD Video

Items			Selection Method
Title Number	01	1/3►	✓ / ►, Numbers ENTER
Chapter Number		1 / 12 ▶	 ✓ / ►, Numbers ENTER
Time search	0	0:20:09	Numbers, ENTER
Audio language and Digital Audio Output mode	1	1 ENG □□ D ► 3/2.1CH	✓ / ► or AUDIO
Subtitle language	ABC 4	1 ENG ►	✓ / ► or SUBTITLE
Angle		1/3 ►	✓ / ► or ANGLE
Sound	•	3D SUR 🕨	◄ / ►

Example: On-Screen Display during playing VCD

Items		Selection Method
Track Number (or PBC mode)	€ 1/3►	✓ / ►, Numbers ENTER
Time search	0:20:09	Numbers ENTER
Audio Channel	↓ Stereo ►	✓ / ► or AUDIO
Sound	● ◆ 3D SUR >	▶</td

Before Operation - DVD Part (Continued)

Initial Settings

By using the Setup menu, you can make various adjustments to items such as picture and sound. You can also set a language for the subtitles and the Setup menu, among other things. For details on each Setup menu item, see pages 19 to 22.

To display and exit the Menu:

Press SETUP to display the menu. A second press of SETUP will take you back to initial screen.

To go to the next level:

Press \blacktriangleright on the remote control.

To go back to the previous level: Press ◀ on the remote control.

General Operation

Press SETUP.

The Setup menu appears.

Use \blacktriangle / \bigtriangledown to select the desired option then press \triangleright to move to the second level. The screen shows the current setting for the selected item, as well as alternate setting(s).

Use \blacktriangle / \bigtriangledown to select the second desired option then press \blacktriangleright to move to the third level.

Use \blacktriangle / \lor to select the desired setting then press ENTER to confirm your selection. Some items require additional steps.



Press SETUP or PLAY to exit the Setup menu.

LANGUAGE



Menu Language

Select a language for the Setup menu and on-screen display.

Disc Audio / Subtitle / Menu

Select the language you prefer for the audio track (disc audio), subtitles, and the disc menu.

Original: Refers to the original language in which the disc was recorded.

Other: To select another language, press number buttons then ENTER to enter the corresponding 4-digit number according to the language code list in the reference chapter (see p. 44). If you enter the wrong language code, press CLEAR.

Before Operation - DVD Part (Continued)

DISPLAY



TV Aspect DVD

4:3 : Select when a standard 4:3 TV is connected.

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

Display Mode DVD

Display Mode setting works only when the TV Aspect mode is set to "4:3".

LetterBox: Displays a wide picture with bands on the upper and lower portions of the screen.

Panscan: Automatically displays the wide picture on the entire screen and cuts off the portions that do not fit.

AUDIO

Each DVD disc has a variety of audio output options. Set this unit's AUDIO options according to the type of audio system you use.

	AUDIO		
A	Dolby Digital	Bitstream	
	DTS	Bitstream	
	MPEG	РСМ	
 • 	Sample Freq.	48KHz	
<u> </u>	DRC	On	
	Vocal	On	
		🖨 Move	▶ Select

Dolby Digital / DTS / MPEG

DVD

Bitstream: Select "Bitstream" if you connect the DVD+VCR's DIGITAL AUDIO OUT jack to an amplifier or other equipment with a Dolby Digital, DTS or MPEG decoder.

PCM (for Dolby Digital / MPEG): Select when connected to a two-channel digital stereo amplifier. DVDs encoded in Dolby Digital or MPEG will be automatically downmixed to two-channel PCM audio.

Off (for DTS): If you select "Off", the DTS signal is not output through the DIGITAL OUT jack.

Sample Freq. (Frequency) OVD

If your receiver or amplifier is NOT capable of handling 96 kHz signals, select 48 kHz. When this choice is made, this unit automatically converts any 96 kHz signals to 48 kHz so your system can decode them.

If your receiver or amplifier is capable of handling 96 kHz signals, select 96 kHz. When this choice is made, this unit passes each type of signal through without any further processing.

Check the documentation for your amplifier to verify its capabilities.

Dynamic Range Control (DRC) DVD

With the DVD format, you can hear a program's soundtrack in the most accurate and realistic presentation possible, thanks to digital audio technology. However, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). This allows you to listen to a movie at a lower volume without losing clarity of sound. Set DRC to On for this effect.

Vocal DVD

Set to On only when a multi-channel karaoke DVD is playing. The karaoke channels on the disc mix into normal stereo sound.

OTHERS

The PBC, Auto Play, B.L.E., Pluge and DNR settings can be changed.



PBC VCD

Set Playback Control (PBC) to On or Off.

 $\mathbf{On}:$ Video CDs with PBC are played according to the PBC.

Off: Video CDs with PBC are played the same way as Audio CDs.

Auto Play DVD

You can set up the DVD+VCR so a DVD disc automatically starts playing whenever the DVD is inserted. If Auto Play mode is set to On, this DVD+VCR will search for title that has the longest playback time and then play back the title automatically.

On: Auto Play function is active.

Off: Auto Play function is not active.

Note:

The Auto Play function may not work for some DVDs.

B.L.E. (Black Level Expansion)

To select the black level of playback pictures. Set your preference and monitor's ability.

On: Expanded grey scale. (0 IRE cut off)

Off: Standard grey scale. (7.5 IRE cut off)

Note:

The B.L.E. function works on NTSC system only.

Pluge (Blacker than Black) **DVD**

For proper adjustment of your television brightness settings utilizing a commercially available test disc.

On: Select when you adjust the level of your TV using a commercially available test disc that contains pluge signals.

Off: For normal use.

DNR (Digital Noise Reduction)

You can reduce ambient noise in the picture.

DNR1: Normal level DNR2: Expanded level.

Off: Off.

Notes:

- Actual picture enhancement may vary depending on the quality of the disc.
- While the DNR2 (expanded level) can provide additional improvement in the reduction of noise in the video signal, it may produce undesirable picture artifacts on some discs. Should this occur, select a more appropriate DNR level (normal or off).
- Depending on the disc, some picture detail may be lost by the picture enhancement.
- A DVD audio disc with Dolby Digital or DTS soundtrack may be played, some DVD audio discs include moving pictures which may be modified by the above processes.

Before Operation - DVD Part (Continued)

LOCK (Parental Control)



Rating **DVD**

Some movies contain scenes that may not be suitable for children to view. Many of these discs contain parental control information that applies to the complete disc or to certain scenes on the disc. Movies and scenes are rated from 1 to 8, depending on the country. DVD video discs may or may not respond to the parental control setting if the Country code of the disc is set wrongly. Some discs offer more suitable scenes as an alternative.

The parental control feature allows you to block access to scenes below the rating you input, thereby preventing your children from being able to view material you believe is unsuitable.

- 1. Select "Rating" on the LOCK menu then press ►.
- To access the Rating, Password and Country Code features, you must input the 4-digit security code you created. If you have not yet entered a security code you are prompted to do so.

Input a 4-digit code and press ENTER. Enter it again and press ENTER to verify. If you make a mistake before pressing ENTER, press CLEAR.

3. Select a rating from 1 to 8 using the \blacktriangle / \blacktriangledown buttons.

Rating 1-8: Rating one (1) has the most restrictions and rating eight (8) is the least restrictive.

Unlock

If you select unlock, parental control is not active and the disc plays in full.

Note:

If you set a rating for the player, all disc scenes with the same rating or lower are played. Higher rated scenes are not played unless an alternate scene is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, playback stops. You must enter the 4-digit password or change the rating level in order to play the disc.

- 4. Press ENTER to confirm your rating selection, then press SETUP to exit the menu.
- 5. Press OPEN/CLOSE (▲) to activate parental control.

Password (Security Code)

You can enter or change password.

- 1. Select "Password" on the LOCK menu then press ▶.
- 2. Press ENTER.
- 3. Follow step 2 as shown left (Rating). "Change" or "New" is highlighted.
- 4. Enter the new 4-digit code, then press ENTER. Input it again to verify.
- 5. Press SETUP to exit the menu.

If you forget your Security Code

If you forget your security code you can clear it using the following steps:

- 1. Press SETUP to display the Setup menu.
- 2. Input the 6-digit number "210499" and the security code is cleared.
- 3. Enter a new code as described above.

Country Code DVD

Enter the code of the country/area whose standards were used to rate the DVD video disc, based on the list in the reference chapter (see p. 45).

- Select "Country Code" on the LOCK menu then press ►.
- 2. Follow step 2 as shown left (Rating).
- 3. Select the first character using ▲ / ▼ buttons.
- Press ENTER and select the second character using ▲ / ▼ buttons.
- 5. Press ENTER to confirm your country code selection.

Operation with tape

Normal Playback

Preparation:

- Turn on the TV
- Tune the TV to the DVD+VCR output channel (CH 3 or 4) or set the TV's source selector to VIDEO.
- If a direct VIDEO/AUDIO connection is made between the DVD+VCR and the TV, set the TV's source selector to VIDEO.
- Set the Output Source to VCR as shown in Selecting the Viewing Source on page 6.

Insert a prerecorded video cassette.

The σ indicator will light and the DVD+VCR will power-up automatically.

- Make sure that the O indicator in the display window is not lighted. If it is, press **POWER** once.
 If a tape without a cofety tab is incorted the unit we should be used.
- If a tape without a safety tab is inserted, the unit will start playback automatically.

Press PLAY once.

- PLAY appears on the TV screen .
- It is not necessary to select the tape speed for playback. It will be automatically selected by the DVD+VCR.
- In playback, the TV/VCR selector switches to VCR mode automatically.

Press STOP to stop playback.

STOP appears on the TV screen.

• If the tape reaches the end before STOP is pressed, the DVD+VCR will automatically stop, rewind, eject, and it will turn itself off.

Tracking Control

Auto Tracking

The automatic tracking function adjusts the picture to remove snow or streaks.

The AUTO TRACKING function works in the following cases:

- When the ATR(AUTO TRK) button is pressed.
- A tape is played back for the first time.
- Tape speed (SP, LP, SLP) changes.
- Streaks or snow appear because of scratches on the tape.

Manual Tracking

If noise appears on the screen during playback, press CH/TRK (+/-) until the noise on the screen is reduced.

- In case of vertical jitter, adjust these controls very carefully.
- Tracking is automatically reset to normal when the tape is ejected or the power cord is unplugged for more than 3 seconds.

Rewinding/Fast-forwarding

Press REW (\blacktriangleleft) or FF (\blacktriangleright) in the Stop mode.

Special Effect Playbacks

Special effects playback notes

- Horizontal lines (noise bars) will appear on the TV screen. This is normal.
- The audio is automatically muted during special effect modes, so there is no sound during search.
- During the high-speed picture search modes, a short period is needed to stabilize tape speed when re-entering the PLAY mode. Slight interference may be observed during this period.

Search

This function lets you quickly and visually search for a desired tape section in either direction: forward and reverse.

- 1 Press REW or FF during playback.
- The DVD+VCR will be activated in the SEARCH mode.
- 2 To return to playback, press PLAY.

Still Picture and Frame-by-Frame Playback

- **1** Press PAUSE/STEP during playback.
 - Still picture will appear on the TV screen.
 - If a still picture vibrates vertically, stabilize it by pressing CH/TRK (+/-) on the remote control.
 - If the DVD+VCR is left in the STILL mode for more than 5 minutes, the DVD+VCR will automatically enter the STOP mode to protect the tape and video heads.
- 2 Press PAUSE/STEP repeatedly to advance the video picture one frame at a time while viewing a still picture.
- 3 To return to playback, press PLAY.

Slow Motion

- 1 Press SLOW during playback or still mode. The tape will be played back at a speed 1/19 times slower than the normal speed.
 - During slow playback, use CH/TRK (+/-) to minimize noise bands.
 - If slow motion mode continues for more than 3 minutes, the DVD+VCR will automatically change to playback mode.
- 2 To return to playback, press PLAY.

Instant Skip

This is useful for skipping commercials or short program segments.

- 1 Press INSTANT SKIP during the playback mode. The tape will fast forward picture search through 30 seconds of recording.
 - The skipping time can be extended by pressing INSTANT SKIP.
 - Subsequent presses result in advancing the fast forward picture search time by 30-second increments (maximum 3 minutes).
- **2** When the search is completed, the DVD+VCR will go into playback mode automatically.

VISS (VHS Index Search System)

The VHS INDEX SEARCH SYSTEM enables you to locate the beginning of any recording made on this VCR. Whenever a recording begins, an invisible INDEX mark is recorded on the tape.

VISS Scan

VISS SCAN lets you search out each VISS mark on the recorded tape and play 5 seconds before advancing to the next VISS mark.

Insert a cassette tape that has VISS signals marked.

2 Press the VISS button once during PLAYBACK or STOP mode.

The VISS -- indicator will appear in the display window.

Press either the FF or the REW button.

The VISS SCAN will start. The indicator appears simultaneously during scanning. The tape will be rewound or rapidly advanced to the next signal marked.

The tape will be played back for approximately 5 seconds, and then rewound or rapidly advanced to the next VISS signal.

• Press VISS or STOP button to stop the VISS SCAN mode.

At the desired program, press the PLAY button. Normal playback of that program will begin.

VISS Search

You can locate the desired program and play it back automatically by designating the number of its VISS signal. Up to the 99th VISS signal from the preset position on the tape can be located.

Press the VISS button once during PLAYBACK or STOP mode.

The VISS -- indicator will appear in the display window.

Enter the number of VISS signals you wish to skip.

Up to 99 signals may be skipped from any given position on the tape.

Press either the FF or REW button once. The SCH 02 (for example) message appears in the display window. When the desired VISS signal is found, playback begins automatically.

• If the end of the tape is reached during forward VISS search, the VCR will automatically stop, rewind, eject, and turn itself off.

Normal Recording

Preparation:

- Turn on the power of both the DVD+VCR and TV.
- Tune the TV to the DVD+VCR output channel (CH 3 or 4) or set the TV's source selector to VIDEO.
- If a direct VIDEO/AUDIO connection is made between the DVD+VCR and the TV, set the TV's source selector to VIDEO.

Insert a video cassette that the safety tab intact.

2 Select the desired channel by using CH/TRK (+/-).

- If you are recording from another source via audio/video input jacks (at the Rear or Front panel), select the LINE1 or LINE2 by pressing INPUT SELECT.
- Set the desired recording speed (SP or SLP) by pressing SP/SLP.
 - This DVD+VCR is not designed to record in LP mode.
- Set the MTS mode as desired (See page 16, 28).

Press REC/OTR once.

Recording will start. (The REC indicator will light in the display window.)

- REC indicator appears only when the Output Source is set to VCR.
- If a cassette with no safety tab is loaded, the cassette will be ejected automatically.

Press STOP to stop recording.

If the tape reaches the end before STOP is pressed, the DVD+VCR will automatically stop, rewind, eject, and it will turn itself off.

To pause the recording

1 Press PAUSE/STEP to pause the tape during recording.

The REC indicator will flash in the display window.

- 2 When you want to continue recording, press PAUSE/STEP or press REC/OTR.
 - After 5 minutes in pause mode, the tape will be stopped automatically to protect the tape and the video heads.

To record one TV program while watching another

1 Press TV/VCR to select the TV mode during recording.

The TV indicator appears.

2 Using the TV, select the channel to be viewed.

Tip :

Always use PAUSE/STEP for best results when making changes during recording.

For example: To change channels during recording, first press PAUSE/STEP to put the unit in pause mode. Then select the desired channel on the DVD+VCR, and press PAUSE/STEP again to resume recording.



Timer Recording

This DVD+VCR can be programmed to record up to 8 programs within a period of 1 year. For unattended recording, the timer needs to know the channels to be recorded and the starting and ending times.

Things to know before starting

- If you try to set the program timer before setting the clock, PLEASE SET THE CLOCK appears for a moment and then CLOCK menu appears on the TV screen. Set the time and date before proceeding.
- Make sure a tape is in the DVD+VCR and the safety tab is in place or the tape will be automatically ejected.

Preparation:

- Turn on the power of both the DVD+VCR and the TV.
- Be sure the TV is set to the DVD+VCR output channel (3 or 4).
- Make sure the TUNING BAND in the TUNING menu is set appropriately (TV or CATV).

Press VCR MENU and the MAIN menu will appear.

Use ▲/▼ to choose the PROGRAM menu.

Press ENTER to go to the PROGRAM menu. The PROGRAM menu will appear.

 If all programs have already been entered, FULLY PROGRAMMED message will appear for a moment and then PROGRAM 1 will appear on the TV screen.



Use **◄/**► to choose the PROGRAM No. (1-8).

Use ▼ to choose the MONTH option.

- Use ◄/► to choose the desired month.
 - Use ▼ to choose the DAY option.
 - Use **√** to choose the desired day.
 - Use ▼ to choose the START option.

Use \triangleleft to choose the desired start time. Press and hold </b to advance the clock faster.

- Use ▼ to choose the STOP option.
- Use \triangleleft to choose the desired stop time. Press and hold **◄/**► to advance the clock faster.

Use ▼ to choose the CHANNEL option.

Use **◄/**► to choose the desired channel (Channel, LINE1 or LINE2).

Cable Users: If you have CABLE TV and used Cable Box in Connecting Antenna/Cable TV to DVD+VCR (page 11), using a cable box converter, you must set the channel in this step to match the cable box output channel (usually CH 3 or 4). Change channels on the cable box instead of the DVD+VCR.

Use ▼ to choose the SPEED option. Use </▶ to choose the desired recording speed (AUTO, SP or SLP).

• AUTO mode determines how much tape is left and switches speed from SP to SLP, if necessary, to complete recording the program. There will be some picture and sound distortion at the point of the speed change.

Use ▼ to choose the REPEAT option. Use </▶ to choose the desired repeat (ONCE,

WEEKLY or DAILY). ONCE event....for recording up to 8 programs on a single day or over the days within a period of 1 year.

WEEKLY event....for recording up to 8 programs on a certain day of every week.

DAILY event....for recording up to 8 programs at the same time(s) Monday through Friday.



TiP :

If the input data is wrong, use **A** to select the data and correct it using $\triangleleft/\triangleright$.



- O indicator lights in the display window.
- If the program preset time is past, the PAST TIME PROGRAMMED message will appear on the TV screen. Return to the incorrect program and program it with the correct time.
- · If you had entered a past date, the timer recording will be performed on that date of the next year.
- Additional programs may be entered by repeating steps 1-12.

Cable Users: If your cable hookup is via a TV converter box, you can program multiple recordings only on the converter box output channel. This is because the converter determines what channel you view through your DVD+VCR.



Press STOP to stop timer recording.

TiP :

If you have finished programming and you want to set the DVD+VCR to record the programs you have entered. MAKE SURE YOU HAVE INSERTED A TAPE INTO THE DVD+VCR. The DVD+VCR is now set to record the preset programs.

Note :

If the power fails or the DVD+VCR is unplugged from the AC outlet, the correct clock time and timer settings are kept in memory for approximately 3 seconds. After 3 seconds, the clock and program timer must be reset when power is restored. Reset the clock according to instructions.

After setting a timer recording, it will start if a timer recording passes over the start time and stop at the programmed end time.



Checking (Erasing) the Timer Program

Programming can be checked whenever the DVD+VCR is turned on.

- 1 Press VCR MENU and the MAIN menu will appear.
- 2 Use ▲/▼ to choose the PROGRAM menu.
 - Press ENTER and the PROGRAM menu will appear.



- 3 Use ◄/► to select a program you want to check or erase. If you want to erase the program, press CLEAR.
- 4 Press VCR MENU to return to the TV screen.

Program Priority



If the recording start and end times of preset programs overlap on the same day (see the example and diagram left), program number 2 will not be recorded until program number 1 is finished.

The first part of program number 2 will not be recorded. The same thing will happen to program number 3.

One touch Timer Recording(OTR)

One touch Timer Recording allows you to make a recording easily of a preset length without using the program timer.

Preparation:

- Turn on the power of both the DVD+VCR and the TV.
- Be sure the TV is tuned to the DVD+VCR output channel (3 or 4).
- If a direct VIDEO/AUDIO connection is made between the DVD+VCR and the TV, set the TV's source selector to VIDEO.

Insert a video cassette with the safety tab intact.

2 Select the desired channel by using CH/TRK (+/-) or number (0-9).

The channel number appears on the TV screen.

 If you are recording from another source via audio/video input jacks (at the Rear or Front panel), select the LINE1 or LINE2.

Set the desired recording speed (SP or SLP) by pressing SP/SLP.

The tape speed will appear on the TV screen.

- Press REC/OTR twice.
 - The menu as illustrated, will appear on the TV screen.
- Recording will start. (The ⁽²⁾ indicator will light) Press REC/OTR repeatedly to select the
 - **recording time length.** At the end of the recording, the DVD+VCR will stop recording and shut off.
 - During One touch Timer Recording, changing the channel on the DVD+VCR will not be possible.
 - You can stop the recording by pressing STOP.

ONE TOUCH TIMER RECORD MENU

ONE TOUCH TIMER RECOR	D 0H30M 9H00M → 0H00M
CHANNEL 2 SPEED SP	Length Display (each additional press of
START NOW LENGTH 0H30M	REC/OTR increases recording time 30 minutes)

Checking the Recording Time

Press REC/OTR once to check the recording time. The recalled setting will automatically return to the TV screen after 6 seconds.

To extend the Recording Time

The recording time can be extended anytime by pressing REC/OTR.

Subsequent presses result in advancing the recording time by 30-minute increments to a maximum fo 9 hours.

Notes:

- If you press PAUSE/STEP during One touch timer recording, the DVD+VCR will enter the recording pause mode. Instant timer recording is cancelled.
- If the DVD+VCR is set to "0H00M", the DVD+VCR goes to normal recording mode.

Dubbing and Editing

If you wish to edit or dub your camcorder (or another VCR) recordings to this DVD+VCR, the rear (or Front) panel mounted Audio and Video (A/V) input jacks make the connections quick and easy. These direct A/V jacks will also provide better picture results than using the RF jack on the rear panel.

Connect the Camcorder's (or Another VCR's) A/V outputs to your DVD+VCR as illustrated on page 14.

2 Set the input channel "LINE2". (press INPUT SELECT to select LINE2.)

 If you have connected your DVD+VCR to the A/V input jacks on the rear of DVD+VCR, you should select the input channel LINE1 by pressing INPUT SELECT twice.

Play the tape in the camcorder (or another VCR). If you have a TV attached to your DVD+VCR, you can see the video playing.

When your desire recording begins, press DVD+VCR's REC/OTR once to start.

Note:

Before recording, please confirm the recording start position.

Copying from DVD to VCR

This unit allows you to copy the contents of a DVD to a VHS tape.

Note:

If the DVD you are attempting to copy is copy protected, you will not be able to copy the disc. It is not permitted to copy Macrovision encoded DVDs. "Lock" is displayed in the display window.

Insert Disc

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

Insert VHS Tape

Insert a blank VHS video tape into the VCR deck.

Press PLAY on the DVD deck.

- The DVD will go into play mode
- If the DVD disc menu appears, you may need to press the PLAY manually to begin copying.

Press REC on the VCR deck.

- The DVD+VCR will go into Record mode.
- "REC" indicator will light.

Stop the Copy Process

When the DVD has finished playing, press STOP (■) to stop the DVD playback. The recording on the VCR will be stopped automatically.

Note:

In case of insufficient tape length, the DVD+VCR will automatically rewind the tape to the beginning and be ejected. it also stops the DVD playback.

21)

VHS Hi-Fi Stereo System/ MTS Broadcast

This DVD+VCR is equipped with the VHS Hi-Fi audio sound system for recording and playback. The information below gives a brief description of Hi-Fi audio and how to record and play a tape in the Hi-Fi audio mode.

Playback with Hi-Fi Stereo Audio Sound

A stereo TV with AUDIO/VIDEO input jacks or a stereo audio system is required for true stereo playback. To experience the full and rich stereo sound available with Hi-Fi recorded tapes, we recommend the connection of this unit to a home stereo audio system.

Set the AUDIO MODE option to HI-FI on the SETUP menu.



Set the AUDIO OUTPUT option to STEREO position.

(STEREO) POSITION: The left channel sound (L) is heard from the left speaker and the right channel sound (R) is heard from the right speaker.

(LEFT) POSITION: The left channel sound (L) is heard from both speakers.

(RIGHT) POSITION: The right channel sound (R) is heard from both speakers.





Press VCR MENU.

Insert a cassette and press PLAY. Adjust volume at your stereo system.

MTS (Multi-Channel TV Sound)

This DVD+VCR will decode MTS stereo and bilingual (SAP) off-the-air broadcast sound signals. It also decodes stereo TV sound from local cable companies, as long as they operate on assigned cable frequencies and use the EIA-recommended MTS stereo/bilingual TV sound system.

Multichannel TV Sound Indicator (MTS)

Shows Onscreen as illustrated below when ENTER is pressed.

One or both of the indicators will light, depending on the MTS broadcast.



If only STEREO appears on the TV screen.

The DVD+VCR can record in stereo onto the VHS Hi-Fi audio tracks when the BROADCAST TYPE option is in the STEREO position. The DVD+VCR will also record mono audio onto the mono audio track.

If only SAP appears on the TV screen. Set the BROADCAST TYPE option to SAP.

If STEREO/SAP appears on the TV screen

Use the BROADCAST TYPE option to select the desired recording mode (STEREO or SAP).

SAP (Second Audio Program) Recording

Some stations transmit a Second Audio Program, which is used for a second language or additional information. When the station broadcasts a Second Audio Program, follow the procedure below to record the SAP.

Insert a video cassette with the safety tab intact.

Ω Set the BROADCAST TYPE option to SAP (SETUP menu).

Do this if only the SAP appears on the TV screen or you know the program will use the SAP.



Press VCR MENU.

Set the desired recording speed (SP or SLP) by pressing SP/SLP.

Select the desired channel. The SAP should appear on the TV screen.



Press REC/OTR once

You are now recording the program you see and hear on the TV

Press STOP to stop recording.



Tape Counter Memory Feature

Real-Time Counter

Shows length of tape run in hours, minutes, and seconds. Press **CLK/CNT** to select the real-time counter display.

Every press of **CLK/CNT** changes the TV screen as illustrated below.



- Counter changes to "0:00:00" when the cassette is ejected.
- The real-time counter does not operate if nothing is recorded on the tape.
- The real-time counter will not work unless a tape is inserted.

Counter Memory Function

This is useful if there is a section of tape you want to view immediately after recording or if you want to return to the same point several times.

Begin recording or playing a tape.

2 Press CLK/CNT repeatedly to display the realtime counter appears on the TV screen.

At the point that you want to locate later, reset the real-time counter to "0:00:00" by pressing COUNTER RESET.

Continue to play or record.

Press STOP when recording or playback finishes.

Press REW.

The tape automatically stops when the tape counter returns to about "0:00:00".

Tape Remaining

This function allows the time of the remaining tape to be displayed during recording or playback.

Press **CLK/CNT** until the REM indicator displays on the TV screen during recording or playback.

Note:

The remaining tape length indicator may not be displayed correctly depending on the condition of the tape and the kind of the tape (T-140, T-160, or T-210 etc)

Additional Information

- In manual recording, Timer recording, One-touch Timer Recording, playback, or fast forward modes, the DVD+VCR automatically starts rewinding the tape at the end of the tape. The cassette will stop at the beginning of the tape and be ejected, and the DVD+VCR will turn itself off.
- After you have finished using the DVD+VCR, rewind, eject, and remove the cassette. Place the cassette in its protective sleeve to protect it from dust. It is not necessary to rewind the cassette before removing it, but if you do, it will be ready to play or record the next time you use it.
- Be sure the DVD+VCR Channel Selector is on the correct channel you wish to record. The channel that is being recorded can always be checked by setting the television on the DVD+VCR channel (3 or 4) and pressing the TV/VCR selector to turn the DVD+VCR's TV indicator off.
- Do not attempt to hook up more than one television set to the DVD+VCR for either recording or playback.

S-VHS Quasi Playback (SQPB)

- This DVD+VCR can also play back a tape which is recorded in S-VHS playback picture.
- This DVD+VCR cannot record in S-VHS format
- SQPB is an abbreviation for S-VHS Quasi Playback.

Auto Play System

This DVD+VCR features automatic playback. Load a cassette (with the safety tab removed).

- The Output Source is changed to VCR mode automattically.
- The power turns on automatically and playback begins.
- At the end of the tape, the DVD+VCR stops, then rewinds.
- The cassette is ejected after rewinding and goto standby.



Video Head Cleaning

- Whenever a video cassette is inserted into or ejected from this unit the video head is automatically cleaned.
- However, it is possible that the heads may become clogged when playing an old or damaged tape. If the image on your screen resembles the picture on the left while playing back a tape, the heads may require cleaning.
- To clean the heads, obtain a head cleaning tape from your local video dealer. Follows the instructions that come with the cleaning tape, as excessive use can shorten head life.

Blank Search

The Blank Search enables you to locate the end of any recording. Whenever a recording creates, a blank content is recorded on the tape.

Press BLANK SEARCH during playback or in the stop mode and rapidly advanced to find blank content. To find next blank content, press BLANK SEARCH again.

Operation with DVD and Video CD

Playing a DVD and Video CD

Playback Setup DVD VCD2.0 VCD1.1

- Turn on the TV and select the video input source connected to the DVD+VCR.
- Audio system: Turn on the audio system and select the input source connected to the DVD+VCR.
- Set the output source to DVD as shown in Selecting the Viewing Source on page 6.

Press OPEN/CLOSE \triangleq to open the disc tray.

2 Load your chosen disc in the tray, with the playback side down.

When a double-sided DVD is inserted, make sure the side you want to play is facing up.

Press OPEN/CLOSE to close the tray.

READING appears on the TV screen, and playback starts automatically. If playback does not start, press **PLAY** ►.

In some cases, the disc menu might appear instead.

To stop the playback, press STOP \blacksquare .

Then press **OPEN/CLOSE** ▲ on the unit. The disc tray opens. Remove the disc and press **OPEN/CLOSE** ▲ on the unit then press **ON/STANDBY I/**⁽¹⁾. The disc tray closes automatically and unit turns off.

If a menu screen is displayed

The menu screen may be displayed first after loading a DVD or Video CD which offer a menu.

DVD

Use the $\blacktriangleleft \triangleright \blacktriangle \forall$ buttons to select the title/chapter you want to view, then press **ENTER** to start playback.

Press **TOP MENU** or **MENU** to return to the menu screen.

VCD2.0

• Use the number buttons to select the track you want to view.

Press **RETURN** to return to the menu screen.

• Menu setting and the exact operating procedures for using the menu may differ depending on the disc. Follow the instructions on the each menu screen. You also may set PBC to Off under setup. See page 21.

Notes :

- If Parental Control is set and the disc is not within the Rating settings (not authorized), the 4-digit code must be entered and/or the disc must be authorized (see "Parental Control", on page 22).
- DVDs may have a region code. Your player will not play discs that have a region code different from your player. The region code for this player is 1 (one).

General Features

Note:

Unless stated otherwise, all operations described use the remote control. Some features may also be available on the Setup menu.

Moving to another TITLE **DVD**

When a disc has more than one title, you can move to another title as follows:

 Press DISPLAY followed by ▲ ▼ to select the Title icon. Then press the appropriate number button (0-9) to select a title.

Note:

Some discs may not respond to this operation.

Moving to another CHAPTER/TRACK

When a title on a disc has more than one chapter or a disc has more than one track, you can move to another chapter/track as follows:

- Press SKIP ►►I or I◄◄ briefly during playback to select the next chapter/track or to return to the beginning of the current chapter/track.
- Press **SKIP** I twice in quick successions to step back to the previous chapter/track.
- To go directly to any chapter during DVD playback, press DISPLAY. Then, press ▲/▼ to select chapter/track icon. Then, enter the chapter/track number using the numbered buttons (0-9).

Note:

For two-digit numbers, press the numbered buttons (0-9) in rapid succession.

Search DVD VCD2.0 VCD1.1

- 1 Press **REW** ◀◀ or **FF** ►► during playback. The player will now go into SEARCH mode.
- 2 Press **REW** ◄◄ or **FF** ►► repeatedly to select the required speed:

◄X2, ◄X4, ◄X16, ◄X100 (backward) or
 ►X2, ►X4, ►X16, ►X100 (forward).
 With a Video CD, the Search speed changes:
 ◄X2, ◄X4, ◄X8 (backward) or ►X2, ►X4,
 ►X8 (forward).

3 To return to playback, press PLAY >.

Still Picture and Frame-by-Frame Playback

DVD VCD2.0 VCD1.1

- 1 Press **PAUSE/STEP III/II**► during playback. The player will now go into PAUSE mode.
- 2 You can advance the picture frame-by-frame by pressing **PAUSE/STEP III/II**► repeatedly on the remote control.



Operation with DVD and Video CD (Continued)

General Features (continued)

Slow Motion DVD VCD2.0 VCD1.1

- 1 Press **SLOW** I► during playback or still mode. The player will enter SLOW mode.
- 2 Press SLOW I► repeatedly to select the required speed : I► 1/16, I► 1/8, I► 1/4 or I► 1/2 (forward).
- 3 To exit slow motion mode, press PLAY ►.

Random Karaoke DVD VCD2.0 VCD1.1

- 1 Press **RANDOM** during playback or in stop mode. The unit automatically begins Random Playback and "RANDOM" appears on the TV screen.
- 2 To return to normal playback, press **RANDOM** again until "NORMAL" appears on the TV screen.

TiP :

By pressing SKIP I◀◀ or ►►I during Random playback, the unit selects another title (track) and resumes Random playback.

Notes:

- This function only works with DVD karaoke discs and video CD without PBC.
- On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Random function. See page 21.

Repeat **DVD VCD20 VCD11**

You can repeat a title/chapter/all/track on a disc. Press REPEAT during playback to select a desired repeat mode.

DVD Video Discs - Repeat Chapter/Title/Off

- Chapter: repeats the current chapter.
- Title: repeats the current title.
- Off : does not play repeatedly.

Video CDs - Repeat Track/All/Off

- Track : repeats the current track
- All : repeats all the tracks on a disc.
- Off : does not play repeatedly.

Notes:

- On a Video CD with PBC, you must set PBC to Off on the setup menu to use the repeat function (See "PBC" on page 21).
- If you press SKIP (►►I) once during Repeat Chapter (Track) playback, the repeat playback cancels.

Repeat A-B DVD VCD20 VCD11

To repeat a sequence in a title:

- 1 Press **A-B RPT** at your chosen starting point. "A *" appears briefly on the TV screen.
- 2 Press **A-B RPT** again at your chosen end point. "A B" appears briefly on the TV screen, and the repeat sequence begins.
- 3 To cancel the sequence, press A-B RPT.

Time Search **DVD**

The Time Search function allows you to start playing at any chosen time on the disc.

- 1 Press **DISPLAY** during playback. The on-screen display appears on the screen. The Time Search box shows the elapsed playing time of the current disc.
- 2 Within 10 seconds, press ▲/▼ to select the Time Search icon in the on-screen display. The "-:--:--" appears in the Time Search box.
- 3 Within 10 seconds, use the number buttons to enter the required start time. Enter hours, minutes, and seconds from left to right in the box.If you enter the wrong numbers, press CLEAR to remove the numbers you entered. Then enter the correct numbers.
- **4** Within 10 seconds, press ENTER to confirm the start time.

Playback starts from the selected time on the disc. If you enter an invalid time, playback will continue from the current point.

3D Surround DVD VCD2.0 VCD1.1

This unit can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multi-channel audio from a home theater system.

- 1 Press DISPLAY during playback.
- Use ▲/▼ to select the sound icon. The sound option will be highlighted.
- 3 Use ◄/► to select "Normal", "3D SUR" or "Dialogue".

Note:

"Dialogue" is only applicable to DVD discs.

Operation with DVD and Video CD (Continued)

General Features (continued)

Zoom DVD VCD2.0 VCD1.1

Use zoom to enlarge the video image.

- 1 Press ZOOM during playback or still playback to activate the Zoom function. The square frame appears briefly in the right bottom of the picture.
- 2 Each press of the ZOOM button changes the TV screen in the sequence: 100% size → 400% size → 1600% size → screen fit mode → 100% size

Screen fit mode:

You can change the way the image appears on the screen when you're playing a DVD movie. Press $\blacktriangle \nabla$ to select between Normal, Enhanced, and Maximum.

- 3 Use the ◀ ► ▲ ▼ buttons to move through the zoomed picture.
- 4 To resume normal playback, press ZOOM repeatedly or CLEAR button.

Notes:

- · Zoom may not work on some DVDs.
- Screen fit mode is available for playing the DVD disc, VR disc.

Marker Search DVD VCD2.0 VCD1.1

You can start playback from a memorized point. Up to nine points can be memorized.

To enter a mark, follow these steps.

- 1 During disc playback, press **MARKER** when playback reaches the spot that you want to memorize. The Marker icon will appear on the TV screen briefly.
- 2 Repeat step 1 to enter up to nine Marker points on a disc.

To Recall a Marked Scene

- 1 During disc playback, press **SEARCH**. The MARKER SEARCH menu will appear on the screen.
- 2 Within 10 seconds, press ◄/► to select a Marker number that you want to recall.
- 3 Press ENTER.
 - Playback will start from the Marked scene.
- 4 To remove the MARKER SEARCH menu, press **SEARCH**.

To clear a Marked Scene

- 1 During disc playback, press **SEARCH**. The Marker Search menu will appear on the screen.
- 2 Within 10 seconds, press ◄/► to select a Marker number that you want to erase.
- 3 Press CLEAR. The Marker number will be erased from the list.
- 4 Repeat steps 2 and 3 to erase additional Marker numbers.
- 5 To remove the MARKER SEARCH menu, press **SEARCH**.

Special DVD Features

Checking the contents of DVD Video discs: Menus

DVDs may offer menus that allow you to access special features. To use the disc menu, press **MENU**. Then, press the appropriate number button to select an option. Or, use the $\triangleleft/ \triangleright / \land / \checkmark$ buttons to highlight your selection, then press **ENTER**.

Title Menu DVD

1 Press TOP MENU.

If the current title has a menu, the menu will appear on the screen. Otherwise, the disc menu may appear.

- **2** The menu can list camera angles, spoken language and subtitle options, and chapters for the title.
- 3 To remove the title menu, press TOP MENU again.

Disc Menu DVD

1 Press MENU.

- The disc menu is displayed.
- 2 To remove the disc menu, press MENU again.

Camera Angle DVD

If the disc contains sequences recorded from different camera angles, the angle icon appears briefly on the TV screen. You can then change the camera angle if you wish.

• Press **ANGLE** repeatedly during playback to select a desired angle.

The number of the current angle appears on the display.

Changing the Audio Language

Press **AUDIO** repeatedly during playback to hear a different audio language or audio track. With DVD-RW discs recorded in VR mode that have both a main and a Bilingual audio channel, you can switch between Main (L), Bilingual (R), or a mix of both (Main + Bilingual) by pressing AUDIO.

Changing the Audio Channel (VCD)

Press **AUDIO** repeatedly during playback to hear a different audio channel (STEREO, LEFT or RIGHT).

Subtitles **DVD**

Press **SUBTITLE** repeatedly during playback to see the different subtitle languages.

Note:

If $\, \bigotimes \,$ appears, the feature is not available on the disc.



Operation with Audio CD and MP3/WMA Disc

Playing an Audio CD or

MP3/WMA Disc

The DVD+VCR can play MP3/WMA formatted recordings on CD-ROM, CD-R, or CD-RW discs.

Audio CD

Once you insert an audio CD a menu appears on the TV screen. Press \blacktriangle / \checkmark to select a track then press PLAY (\blacktriangleright) or ENTER and playback starts.



MP3 / WMA

- Press ▲ / ▼ to select a folder, and press ENTER to see the folder contents.
- Press ▲ / ▼ to select a track then press PLAY (►) or ENTER. Playback starts.



ID3 TAG

- When playing a file containing information such as track titles, you can see the information by pressing DISPLAY. [Title, Artist, Album, Year, Comment]
- If there is no information, "No ID3 TAG" appear on the menu screen.

Tips:

- If you are in a file list on the "MUSIC" menu and want to return to the Folder list, use the ▲ / ▼ to highlight ▲_ and press ENTER.
- · Press MENU to move to the next page.
- On a CD with MP3/WMA and JPEG you can switch MP3/WMA and JPEG. Press TOP MENU and "MUSIC" or "PHOTO" word on top of the menu is highlighted.

MP3 / WMA disc compatibility with this player is limited as follows:

- Sampling frequency: within 8 48 kHz (MP3), within 32 - 48kHz (WMA)
- Bit rate: within 8 320kbps (MP3), 32 - 192kbps (WMA)
- The player cannot read an MP3/WMA file that has a file extension other than ".mp3" / ".wma".
- CD-R physical format should be ISO 9660
- If you record MP3 / WMA files using software that cannot create a file system (eg. Direct-CD) it is impossible to playback MP3 / WMA files. We recommend that you use Easy-CD Creator, which creates an ISO 9660 file system.
- File names should have a maximum of 8 letters and must incorporate an .mp3 or .wma extension.
- They should not contain special letters such as /?
 *: " <> I etc.
- The total number of files on the disc should be less than 650.

This DVD+VCR requires discs and recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or WMA files) and these require certain pre-existing conditions (see above) to ensure compatible playback.

Customers should note that permission is required in order to download MP3 / WMA files and music from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.

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Operation with Audio CD and MP3/WMA Disc (Continued)

Pause CD MP3 WMA

- 1 Press PAUSE/STEP II/II> during playback.
- 2 To return to playback, press PLAY ► or press PAUSE/STEP II/II► again.

Moving to another Track

- Press **SKIP** ►► or I◄◄ briefly during playback to go to the next track or to return to the beginning of the current track.
- Press SKIP I twice in quick successions to step back to the previous track.
- In case of audio CD, to go directly to any track, enter the track number using the numbered buttons (0-9) during playback.

Repeat Track/All/Off CD MP3 WMA

You can play a track/all on a disc.

- 1 Press REPEAT when playing a disc. The repeat icon appears.
- 2 Press REPEAT to select a desired repeat mode.
 - Track: repeats the current track.
 - · All: repeats all the tracks on a disc.
 - · Off(No display): does not play repeatedly.

Note:

If you press SKIP (►►I) once during Repeat Track playback, the repeat playback will be cancelled.

Search CD MP3 WMA

- 1 Press **REW** ◀◀ or **FF** ►► during playback. The player will now go into **SEARCH** mode.
- 2 Press REW ◄< or FF ▷▷ repeatedly to select the required speed: ◄
 X2, ►>X4, ►>X8 (forward). Search speed and direction are indicated on the menu screen.
- 3 To exit SEARCH mode, press PLAY ►.

Random CD MP3 WMA

1 Press **RANDOM** during playback or when playback is stopped.

The unit automatically begins Random Playback and "RANDOM" appears on the menu screen.

2 To return to normal playback, press **RANDOM**. "RANDOM" disappears from the menu screen.

Repeat A-B CD

To repeat a sequence.

1 During disc playback, press **A-B RPT** at your chosen starting point.

The Repeat icon and "A \star " appears on the menu screen.

- 2 Press **A-B RPT** again at your chosen end point. The Repeat icon and "A B" appears on the menu screen, and the sequence begins to play repeatedly.
- **3** To exit the sequence and return to normal play, press **A-B RPT** again.

The Repeat icon and "OFF" appears on the menu screen.

3D Surround CD

To produce a 3D surround effect that simulates multichannel audio from two stereo speakers (instead of the five+ speakers normally required for multi-channel audio from a home theater system).

- 1 Press AUDIO during playback. "3D SUR." appears on the menu screen.
- 2 To return to normal playback, press AUDIO repeatedly until "3D SUR." disappears from the menu screen.



Operation with JPEG Disc

Viewing a JPEG Disc

Using this DVD+VCR you can view JPEG files.

1. Insert a disc and close the tray. The PHOTO menu appears on the TV screen.



 Press ▲ / ▼ to select a folder, and press ENTER. A list of files in the folder appears. If you are in a file list and want to return to the previous Folder list, use

the \blacktriangle / \bigtriangledown buttons on the remote to highlight \square_{-} and press ENTER.

 If you want to view a particular file, press
 ▲ / ▼ to highlight a file and press ENTER or PLAY. The selected file will appear for viewing. While viewing a file, you can press STOP to move to the previous menu (PHOTO menu).

Tips:

- · Press MENU to move to the next page.
- There are three Slide Speed options ^{III}: >>> (Fast), >> (Normal), and > (Slow).
 Use ▲ ▼ ◀ ▶ to highlight the Speed. Then, use ◀ / ▶ to select the option you want to use then press ENTER.
- On a disc with MP3/WMA and JPEG you can switch MP3/WMA and JPEG. Press TOP MENU and MUSIC or PHOTO word on top of the menu is highlighted.
- · Press RETURN, information of file is hidden.

Slide Show JPEG

Use $\blacktriangle \lor \blacklozenge \lor$ to highlight the \blacksquare (Slide Show) then press ENTER.

Still Picture JPEG

- 1. Press PAUSE/STEP II/II► during slide show. The player will now go into PAUSE mode.
- 2. To return to the slide show, press PLAY ► or press PAUSE/STEP II/II► again.

Moving to another File **JPEG**

Press SKIP (I = 0 or I = 0) or cursor (I = 0) once while viewing a picture to advance to the next or previous file.

Zoom JPEG

Use zoom to enlarge the photo image. (see page 32)

To rotate picture **JPEG**

Press \blacktriangle / \checkmark during showing a picture to rotate the picture clockwise or counter clockwise.

To listen to MP3/WMA music while watching picture JPEG

You can display files while listening to MP3/WMA music files recorded on the same disc.

- 1. Insert the disc containing the two types of file in the player.
- 2. Press TOP MENU to display PHOTO menu.
- 3. Press ▲ / ▼ to select a photo file.
- Use ► to select ■^a icon then press ENTER. Playback starts. The playback will continue until STOP is pressed.

Tip:

To listen to only the desired music while watching picture, programmed the desired tracks from the "MUSIC" menu and then proceed as above.

JPEG disc compatibility with this player is limited as follows:

- Depending upon the size and number of JPEG files, it could take a long time for the DVD+VCR to read the disc's contents. If you don't see an on-screen display after several minutes, some of the files may be too large — reduce the resolution of the JPEG files to less than 2M pixels as 2760 x 2048 pixels and burn another disc.
- The total number of files and folders on the disc should be less than 650.
- Some discs may be incompatible due to a different recording format or the condition of disc.
- Ensure that all the selected files have the ".jpg" extensions when copying into the CD layout.
- If the files have ".jpe" or ".jpeg" extensions, please rename them as ".jpg" file.
- File names without ".jpg" extension will not be able to be read by this DVD+VCR. Even though the files are shown as JPEG image files in Windows Explorer.

Programmed Playback CD (CD2.0 (CD1.1) (MP3) (WMA

Programmed Playback

The program function enables you to store your favourite tracks from any disc in the player memory. A program can contain 30 tracks.

- Insert a disc.
 Audio CD or MP3/WMA Discs: AUDIO CD or MUSIC menu appears.
- 2. Press PROGRAM.

The [®] mark will appear to the right of the word "Program" on the right side of the menu screen.

Note:

Press PROGRAM again, the [©] mark will disappear to exit the Program Edit mode.



Audio CD Menu

MP3/WMA Menu

Video CD: Press PROGRAM while playback is stopped. The program menu appears. Press PRO-GRAM again to exit the menu.

Note:

On a Video CD with PBC, you must set PBC to Off on the setup menu to use the programmed playback (See "PBC" on page 21).



Video CD Menu

- Select a track on the "List", then press ENTER to place the selected track on the "Program" list. Repeat to place additional tracks on the list.
- 4. Press ►.

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Select the track you want to start playing on the "Program" list.

 Press PLAY (►) or ENTER to start. Playback begins in the order in which you programmed the tracks. Playback stops after all of the tracks on the "Program" list have played once. To resume normal playback from programmed playback, select a track of AUDIO CD (or MUSIC) list and then press PLAY (►).

Repeat Programmed Tracks

- 1. Press REPEAT when playing a disc. The repeat icon appears.
- 2. Press REPEAT to select a desired repeat mode.
 - · TRACK: repeats the current track
 - ALL: repeats all the tracks on programmed list.
 - Off(No display): does not play repeatedly.

Note:

If you press ►► once during Repeat Track playback, the repeat playback will be cancelled.

Erasing a Track from "Program" List

- Use ▲ ▼ ► to select the track that you wish to erase from the Program list.
- 2. Press CLEAR. Repeat to erase additional tracks on the list.

Erasing the Complete Program List

- 1. Press ► to move to the "Program" list.
- 2. Use ▲ / ▼ to select "Clear All", then press ENTER.

Note:

The programs are also cleared when the disc is removed.
OPERATION

Additional Operation

Playing a DVD VR format Disc

This unit will play DVD-R/RW discs recorded using the DVD-Video format that have been finalized using a DVD-recorder.

- This unit will play DVD-RW discs recorded using the Video Recording (VR) format.
- Insert a disc and close the tray. The DVD-VR menu appears on the TV screen.

List	Date	Duration
01 Title list	7/11	00:28:10
02 Title list	7/10	00:24:30
03 Title list	9/22	01:12:38
04 Title list	11/18	00:01:50
05 Title list	6/25	00:18:26
06 Title list	10/12	00:05:30
07 Title list	10/8	00:38:53

- Press ▲ / ▼ to select a track then press PLAY (▶) or ENTER and playback starts.
- 3. Press TOP MENU to move to the list menu.

Notes:

- Unfinalized DVD-R/RW discs cannot be played in this player.
- Some DVD-VR disc are made with CPRM data by DVD RECORDER. Player does not support these kinds of discs and display the "CHECK DISC".

What is 'CPRM'?

CPRM is a copy protection system (with scramble system) only allowing the recording of 'copy once' broadcast programs. CPRM stands for Content Protection for Recordable Media.

This player is CPRM compatible, which means that you can record copy-once broadcast programs, but you cannot then make a copy of those recordings. CPRM recordings can only be made on DVD-RW discs formatted in VR mode, and CPRM recordings can only be played on players that are specifically compatible with CPRM.

One Touch Replay

Press INSTANT REPLAY during playback and the disc will reverse picture search through 10 seconds of playback. And then the playback will start from the point again.

Screen Saver

A screen saver image appears when you leave the DVD Player in stop mode for about five minutes.

Video Mode Setting DVD

- With certain discs, the playback picture may be flickering or Dot Crawl is shown on straight lines. That means Vertical interpolation or De-interlace is not perfectly matched with the disc. In this case, the picture quality may be improved by changing the video mode.
- To change the video mode, press and hold DISPLAY about 3 seconds during disc playback. The new video mode selected is displayed on the TV screen. Check whether the video quality has improved. If not, repeat the above procedure until picture quality is improved.
- Video mode sequence:
 MODE1 → MODE2 → MODE 3
- If you turn off the power, the video mode will return to initial default state (MODE1).

Detailed Description of each Video Mode

MODE1 : The source material of the DVD video (film material or video material) is determined from disc information.
 MODE2 : Suitable for playing film based content or video based material recorded by the progressive scan method.
 MODE3 : Suitable for playing video based content with comparatively little motion.

Note:

The video mode setting only works when HDMI mode is set to "OFF" and selected resolution is 480p, 720p mode in component video connection.

Controlling Your TV with the Supplied Remote

The remote control can be compatible with various brands of TV/Cable box/DSS satellite receiver by setting their control codes. The TOSHIBA code has initially been set to control TOSHIBA TVs.

Setting TV Control Codes

- 1. Press TV to set the remote control operating your TV.
- 2. While holding down PROGRAM button, enter the two digits of your TV's brand code (listed on page 39) using number buttons.
- 3. Release PROGRAM.

By pressing	You can
POWER	Turn the TV on or off.
CH/TRK +/-	To select TV channels in the upper or lower direction.
VOL +/-	Adjust the volume of the TV.
Number buttons	To select TV channels. When selecting channels 1 to 9, first enter 0 and then the desired number.
100	To substitute for 100 channel key.
DISPLAY	To turn on or off TV's screen display.
INPUT SELECT	Switch the TV's input source between the TV and other input sources.
ENTER	To use for the TV's ENTER key.

Important

Some TV's may not respond to all the operations above, or may not be operated at all with this remote control. In this case, operate your TV with its own remote control.

Notes:

- For some brands, several control codes (brand codes) are allocated. Try each of them until the buttons work on your TV.
- If you replace the remote control's batteries, set the brand code again.



(38)

Controlling Your TV with the Supplied Remote (Continued)

Table of TV Brand Codes

Brand name of your TV	Brand Code
Toshiba	01
Bell & Howell	09
Carver	10
Celebrity	03
Citizen	12
Curtis Mathes	09, 12
Dumont	14
Electro band	03
Emerson	09, 11
Fisher	09
GE	02, 07, 11
Gibraiter	14
Goldstar	11
Hallmark	11
Hitachi	06
Infinity	10
JBL	10
JCB	03
JVC	05
LXI	01, 02, 09, 10, 11
Magnavox	10
Marantz	10
Megatron	06, 11
Memorex	04, 09, 11
MGA	04, 11
Midland	02, 07, 14
Mitsubishi	04, 11
Motorola	08
МТС	12
NAD	01, 11
Nikko	11
Optimus	09
Optonica	08
Panasonic	07, 10, 15
Penney	01, 02, 07, 11, 12
Philco	10
Philips	10
Pioneer	16
Princeclub	12
Prism	07
Proscan	02
Proton	11
Pulser	14
Quasar	07, 15
Radio Shack	13
RCA	02
Realistic	09, 11, 13
	· · · ·

Brand name of your TV	Brand Code
Runco (NEC)	14
Samsung	11,12
Sanyo	09
Scotch	11
Scott	11
Sears	01, 02, 09, 10, 11
Sharp	08, 13
Sony	03
Soundesign	11
Supreme	03
Sylvania	10
Tandy	08
Technics	07, 15
Techwood	07
Teknika	04, 10, 12
ТМК	11
Victor	05
Vidikron	10
Vidtech	11
Wards	10, 11, 13
Zenith	14

REFERENCE

Controlling Your Cable Box/DSS® Satellite Receiver

Setting Cable Box/DSS® Satellite

Receiver Control Codes

- 1. Press CABLE BOX to set the remote control operating your Cable box/DSS[®] Satellite Receiver.
- 2. While holding down PROGRAM button, enter the two digits of your Cable box/DSS[®] Satellite Receiver Brand Code (listed on page 41) using number buttons.

3. Release PROGRAM.

Point the remote control at your Cable box/DSS[®] satellite Receiver and use each button listed below to make sure that your Cable box/DSS[®] satellite receiver is operated correctly.

By pressing	You can
POWER	Turn the Cable box/DSS [®] satellite receiver on or off.
CH/TRK +/-	To select Cable box/DSS [®] satellite receiver channels in the upper or lower direction, (Not applicable to some brands of Cable box/DSS [®] satellite Receiver.)
Number buttons	To select desired channels to record.
ENTER	To use for the Cable box's Enter Key.

(Some cable boxes require you to use 100 button as the enter button.)

Important

Some Cable box/DSS[®] satellite receiver may not respond to all the operations above, or may not be operated at all with this remote control. In this case, operate them with its own remote control.

Note :

- For some brands, several control codes (brand codes) are allocated. Try each of them until the buttons work on your TV.
- If you replace the remote control's batteries, set the brand code again.



Table of Cable Box Brand Codes

Brand name of your Cable box	Brand Code		
Toshiba	36		
Anvision	13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
Archer	1, 20, 21, 29, 42, 44, 63, 88, 91		
Cablestar	13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
Cableview	30, 42, 44, 52, 63, 88		
Citizen	30, 42, 44, 52, 63, 88		
Curtis	8, 9, 56, 61		
Diamond	1, 20, 21, 29, 42, 44, 63, 88, 91		
Eagle	13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
Eastern	26, 28		
GC Brand	30, 42, 44, 52, 63, 88		
Gemini	4, 30, 85		
General Instrument	1, 2, 3, 4, 31, 34, 55, 83, 85, 91		
Hamlin	14, 15, 28, 41		
Hitachi	31, 79, 80		
Jerrold	1, 2, 3, 4, 31, 34, 55, 85, 91		
Macom	31, 79, 80		
Magnavox	13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
Movietime	29, 32, 38, 39, 42, 44, 88		
NSC	29, 32, 38, 39, 42, 44, 88		
OAK	10, 11, 12, 13, 46		
OAK Sigma	10, 11, 12, 13, 46		
Panasonic	6, 8, 16, 17		
Philips	4, 13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
Pioneer	5, 6, 78		
Pulsar	30, 42, 44, 52, 63, 88		
Randtek	13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
RCA	6, 8, 16, 17		
Realistic	44, 88		
Regal	14, 23, 41, 84		
Regency	26, 28		
Rembrandt	29, 32, 38, 39, 42, 44, 88		
Samung	4, 6, 32, 42, 78		
Scientific Atlanta	8, 9, 56, 61		
Sheritech	27		
SL Mark	4, 6, 32, 42, 78		
Sprucher	6, 8, 16, 17		

Brand name of your Cable box	Brand Code		
Stargate	4, 6, 30, 32, 42, 44, 52, 63, 78, 88		
Sylvania	19		
Teknika	74		
Telecaption	77		
Teleview	4, 6, 32, 42, 78		
Texscan	18, 19		
Tocom	1, 33, 34, 42, 48, 49, 73, 91		
Unika	1, 20, 21, 29, 42, 44, 63, 88, 91		
Universal 29, 42, 43, 44, 52 82, 88			
Videoway	7, 23, 45, 50, 84		
Viewstar	13, 20, 21, 22, 23, 24, 25, 26, 58, 62, 84		
Warner Amex	6		
Zenith	7, 23, 45, 50, 84		

Table of DSS[®] Satellite Receiver Brand Codes

Brand name of your DSS [®] satellite receiver	Brand Code
TOSHIBA	99
RCA	98
SONY	97
PANASONIC	90
MAGNAVOX	95, 96
DRAKER	94
PRIMESTAR	93
HITACHI	92, 89

REFERENCE

Troubleshooting

Symptom	Cause	Correction		
No power.	• The power cord is disconnected.	Plug the power cord into the wall outlet securely.		
The power is on, but the DVD+VCR does not work.	 No disc is inserted. No tape is inserted. Insert a disc or tape. (Check disc or tape indicator in the owindow is lit.) 			
Abnormal or no picture.	 The TV is not set to receive DVD+VCR signal output. 	 Select the appropriate video input mode on the TV so the picture from the DVD+VCR appears on the TV screen. 		
	 TV/VCR mode for DVD+VCR is set to TV. 	 Press the TV/VCR button on the remote control repeatedly to choose VCR mode. TV indicator disappears in the display window. 		
	The video cable is not connected securely.	Connect the video cable securely.		
	• The connected TV power is turned off.	Turn on the TV.		
	Wrong cable connection.	Check the connection.		
	The HDMI mode is on.	• Set HMDI on the front panel to OFF.		
	Unit output setting and TV resolution	Check TV capability.		
	capabilities mismatch.	Check mode of connections (eg. S- Video, Component etc.).		
		 Check unit Resolution setting according to TV capability and mode of connec- tion. 		
Distorted or no sound.	 The equipment connected with the audio cable is not set to receive DVD+VCR signal output. 	• Select the correct input mode of the audio receiver so you can listen to the sound from the DVD+VCR.		
	 The audio cables are not connected securely. 	Connect the audio cable securely.		
	• The power of the equipment connected with the audio cable is turned off.	• Turn on the equipment connected with the audio cable.		
	The Digital Audio Output mismatch with the amplifier.	 Select the proper audio setting in AUDIO setup. 		
The playback picture is	The disc is dirty.	Clean the disc.		
poor.	Tape heads are dirty.	Clean video heads.		
	 Tape is a rental or was recorded on another VCR. 	Use CH/TRK (+/-) for manual tracking adjustment while tape is playing.		
The DVD+VCR does not start playback.	No disc is inserted.No tape is inserted.	Insert a disc or tape. (Check that the disc or tape indicator in the display window is lit.)		
	An unplayable disc is inserted.	Insert a playable disc. (Check the disc type, color system, and Regional code.)		
	The disc is placed upside down.	• Place the disc with the playback side down.		
	• The disc is not placed within the guide.	Place the disc on the disc tray correctly inside the guide.		
	The disc is dirty.	Clean the disc.		
	The Rating level is set.	Cancel the Rating function or change the rating level.		

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

REFERENCE

Troubleshooting (Continued)

Symptom	Cause	Correction
The remote control does not work properly.	• The remote control is not pointed at the remote sensor of the DVD+VCR.	Point the remote control at the remote sensor of the DVD+VCR.
	 The remote control is too far from the DVD+VCR. 	• Operate the remote control within 23 ft (7 m).
	 There is an obstacle in the path of the remote control and the DVD+VCR. 	Remove the obstacle.
	• The batteries in the remote control are exhausted.	Replace the batteries with new ones.
	 This remote control use the same buttons for VCR and DVD functions (ex. PLAY). 	 When using a VCR, press DVD/VCR SELECT until VCR indicator lights up in the display window. When using a DVD, press DVD/VCR SELECT until DVD indicator lights up in the display window.
Some channels are skipped over when using CH/TRK (+/-)	 Those channels were deleted with the CH. ADD/DEL option. 	Use CH. ADD/DEL. to restore channels. See "Channel Selection" on page 16.
Picture and sound of broadcasting channel	Antenna or cables are loose.	• Tighten connections or replace cable.
are weak or missing.	 Wrong TUNING BAND option is being used. 	 Try all TUNING BAND options. See "Channel Selection" on page 16 for details.
Camcorder image is not shown.	Camcorder is off.	 Turn camcorder on and operate properly.
Camcorder image via A/V input to DVD+VCR is not shown on TV screen.	 DVD+VCR SOURCE SELECT is not set to LINE1 or LINE2. 	 Press INPUT SELECT to select LINE input channel (LINE1 or LINE2).
Timer recording is not possible.	Clock in DVD+VCR is not set to correct time.	• Set clock to correct time. See "Setting the Clock" on page 17.
	 Timer has been programmed incorrectly. 	Reprogram Timer. See "Timer Recording" on page 25.
	• ⁽²⁾ indicator does not appear after pro- gramming timer.	Reprogram Timer
 Indicator appears after DVD+VCR is turned off. 	DVD+VCR is in Timer Recording mode.	 This is the normal indication that the DVD+VCR is in TIMER mode.
Stereo Audio Record	• TV is not Stereo-compatible.	No action is possible.
and/or Playback is not present.	 Broadcast program is not in stereo for- mat. 	 No action is possible.
	 DVD+VCR A/V Out jacks are not con- nected to TV A/V In jacks. 	 Make A/V connections. Stereo is available only via A/V output from DVD+VCR.
	 DVD+VCR Audio/Video Out is not selected for viewing at the TV. 	Select AUX or A/V source as TV input.
	DVD+VCR BROADCAST TYPE mode is set to SAP or MONO.	Set BROADCAST TYPE mode to STEREO. See "Setting the VCR Setup Menu" on page 16.

Language Code List

Enter the appropriate code number for the initial settings "Disc Audio", "Disc Subtitle" and/or "Disc Menu" (See page 19).

Code	Language	Code	Language	Code	Language	Code	Language
6566	Abkhazian	7074	Fiji	7678	Lingala	8373	Singhalese
6565	Afar	7073	Finnish	7684	Lithuanian	8375	Slovak
6570	Afrikaans	7082	French	7775	Macedonian	8376	Slovenian
8381	Albanian	7089	Frisian	7771	Malagasy	8379	Somali
6577	Amharic	7176	Galician	7783	Malay	6983	Spanish
6582	Arabic	7565	Georgian	7776	Malayalam	8385	Sudanese
7289	Armenian	6869	German	7784	Maltese	8387	Swahili
6583	Assamese	6976	Greek	7773	Maori	8386	Swedish
6588	Aymara	7576	Greenlandic	7782	Marathi	8476	Tagalog
6590	Azerbaijani	7178	Guarani	7779	Moldavian	8471	Tajik
6665	Bashkir	7185	Gujarati	7778	Mongolian	8465	Tamil
6985	Basque	7265	Hausa	7865	Nauru	8484	Tatar
6678	Bengali; Bangla	7387	Hebrew	7869	Nepali	8469	Telugu
6890	Bhutani	7273	Hindi	7879	Norwegian	8472	Thai
6672	Bihari	7285	Hungarian	7982	Oriya	6679	Tibetan
6682	Breton	7383	Icelandic	8065	Panjabi	8473	Tigrinya
6671	Bulgarian	7378	Indonesian	8083	Pashto, Pushto	8479	Tonga
7789	Burmese	7365	Interlingua	7065	Persian	8482	Turkish
6669	Byelorussian	7165	Irish	8076	Polish	8475	Turkmen
7577	Cambodian	7384	Italian	8084	Portuguese	8487	Twi
6765	Catalan	7465	Japanese	8185	Quechua	8575	Ukrainian
9072	Chinese	7487	Javanese	8277	Rhaeto-Romance	8582	Urdu
6779	Corsican	7578	Kannada	8279	Romanian	8590	Uzbek
7282	Croatian	7583	Kashmiri	8285	Russian	8673	Vietnamese
6783	Czech	7575	Kazakh	8377	Samoan	8679	Volapük
6865	Danish	7589	Kirghiz	8365	Sanskrit	6789	Welsh
7876	Dutch	7579	Korean	7168	Scots Gaelic	8779	Wolof
6978	English	7585	Kurdish	8382	Serbian	8872	Xhosa
6979	Esperanto	7679	Laothian	8372	Serbo-Croatian	7473	Yiddish
6984	Estonian	7665	Latin	8378	Shona	8979	Yoruba
7079	Faeroese	7686	Latvian, Lettish	8368	Sindhi	9085	Zulu

REFERENCE

Country/Area Code List

Enter the appropriate code number for the initial setting "Country Code" (See page 22).

LIIIEI	the appropriate code in
Code	Country/Area
AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AI	Anguilla
AL	Albania
AM	Armenia
AN	Netherlands Antilles
AO	Angola
AQ	Antarctica
AR	Argentina
AS	American Samoa
AT	Austria
AU	Australia
AW	Aruba
AZ	Azerbaidjan
BA	Bosnia-Herzegovina
BB	Barbados
BD	
	Bangladesh
BE	Belgium Burkina Faso
BF	
BG	Bulgaria
BH	Bahrain
BI	Burundi
BJ	Benin
BM	Bermuda
BN	Brunei Darussalam
BO	Bolivia
BR	Brazil
BS	Bahamas
BT	Bhutan
BV	Bouvet Island
BW	Botswana
BY	Belarus
ΒZ	Belize
CA	Canada
CC	Cocos (Keeling) Islands
CF	Central African Republic
CG	Congo
СН	Switzerland
CI	Ivory Coast
CK	Cook Islands
CL	Chile
СМ	Cameroon
CN	China
CO	Colombia
CR	Costa Rica
CS	Former Czechoslovakia
CU	Cuba
CV	Cape Verde
CX	Christmas Island
CY	Cyprus
CZ	Czech Republic
DE	Germany
DJ	Djibouti
DK	Denmark
DM	Dominica
DO	Dominican Republic
DZ	Algeria
EC	Ecuador
EE	Estonia
EG	Egypt
EH	Western Sahara
	Hotelon Ganara

	for the milde county
Code	Country/Area
ER	Eritrea
ES	Spain
ET	Ethiopia
FI	Finland
FJ	Fiji
FK	Falkland Islands
FM	Micronesia
FO	Faroe Islands
FR	France
FX	France (European
	Territory)
GA	Gabon
GB	Great Britain
GD	Grenada
GE	Georgia
GF	French Guyana
GH	Ghana
GI	Gibraltar
GL	Greenland
GM	Gambia
GN	Guinea
GP	Guadeloupe (French)
GQ	Equatorial Guinea
GR	Greece
GS	S. Georgia & S. Sandwich
0.0	Isls.
GT	Guatemala
GU	Guam (USA)
GW	Guinea Bissau
GY	Guyana
HK	Hong Kong
HM	Heard and McDonald
	Islands
HN	Honduras
HR	Croatia
HT	Haiti
HU	Hungary
	Indonesia
IE	Ireland
	Israel
IN	India
	British Indian Ocean
10	Territory
IQ	Iraq
IR	Iran
IS	Iceland
IT	Italy
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia6
KI	Kiribati
KM	Comoros
KN	Saint Kitts & Nevis Anguilla
KP	North Korea
KR	South Korea
KW	Kuwait
KVV KY	
KT KZ	Cayman Islands Kazakhstan
	Laos
LA LB	Lebanon
	Lobalion

,	(10)
Code	Country/Area
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LU	Luxembourg
LV LY	Latvia
MA	Libya Morocco
MC	Monaco
MD	Moldavia
MG	Madagascar
MH	Marshall Islands
MK	Macedonia
ML	Mali
MM	Myanmar
MN	Mongolia
MO	Macau
MP	Northern Mariana Islands
MQ	Martinique (French)
MR	Mauritania
MS	Montserrat
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA NC	Namibia
	New Caledonia (French)
NF	Niger Norfolk Island
NG	Nigeria
NI	Nicaragua
NL	Netherlands
NO	Norway
NP	Nepal
NR	Nauru
NU	Niue
NZ	New Zealand
OM	Oman
PA	Panama
PE	Peru
PF	Polynesia (French)
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PM PN	Saint Pierre and Miquelon
	Pitcairn Island Puerto Rico
PR	Portugal
PW	Palau
PY	Paraguay
QA	Qatar
RE	Reunion (French)
RO	Romania
RU	Russian Federation
RW	Rwanda
SA	Saudi Arabia
SB	Solomon Islands

Orde	0
Code	Country/Area
SC	Seychelles
SD	Sudan
SE	Sweden
SG	Singapore
SH	Saint Helena
SI	Slovenia
SJ	Svalbard and Jan Mayen
	Islands
SK	Slovak Republic
SL	Sierra Leone
SM	San Marino
SN	Senegal
SO	Somalia
SR	Suriname
ST	Saint Tome and Principe
SU	Former USSR
SV	El Salvador
SY	Syria
SZ	Swaziland
тс	Turks and Caicos Islands
TD	Chad
TF	French Southern
	Territories
TG	Тодо
TH	Thailand
TJ	Tadjikistan
тк	Tokelau
ТМ	Turkmenistan
TN	Tunisia
TO	Tonga
TP	East Timor
TR	Turkey
TT	Trinidad and Tobago
TV	Tuvalu
TW	Taiwan
TZ	Tanzania
UA	Ukraine
UG	Uganda
UK	United Kingdom
UM	USA Minor Outlying
UN	Islands
US	United States
	Uruguay Uzbekistan
VA	Vatican City State
	Saint Vincent &
vu	Grenadines
VE	Venezuela
VG	Virgin Islands (British)
	Virgin Islands (USA)
VN	Vietnam
VU	Vanuatu
WF	Wallis and Futuna Islands
WS	Samoa
YE	Yemen
YT	Mayotte
YU	Yugoslavia
ZA	South Africa
ZM	Zambia
ZR	Zaire
ZW	Zimbabwe

Specifications

General

Power requirements Power consumption Dimensions (approx.) Mass (approx.) Operating temperature Operating humidity	AC 120V , 60 Hz 23W 430 X 78.5 X 275 mm (16.9 X 3.1 X 10.8 inches) (w x h x d) 8.8 lbs (4.0 kg) 5°C to 40°C (41°F to 104°F) 5 % to 90 %
Signal system	NTSC
Inputs	
ANTENNA IN	75 ohms (VHF/UHF/CATV)
VHS VIDEO IN (LINE1, 2)	1 Vp-p 75 ohms, sync negative, RCA jack x 2
VHS AUDIO IN (LINE1, 2)	-6.0 dBm more than 47 kohms, RCA jack (L, R) x 2
Outputs	
VIDEO OUT	1 Vp-p 75 ohms, sync negative
S-VIDEO OUT	(Y) 1.0 V (p-p), 75 ohms, negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75 ohms
COMPONENT VIDEO OUT	(Y) 1.0 V (p-p), 75 ohms, negative sync, RCA jack x 1
(Progressive Scan)	(Pb)/(Pr) 0.7 V (p-p), 75 ohms, RCA jack x 2
Audio output (digital audio)	0.5 V (p-p), 75 ohms, RCA jack x 1
Audio output (optical audio)	5 V (p-p), 75 Ω, Optical connector x 1
Audio output (analog audio) RF OUT	2.0 Vrms (1 KHz, 0 dB), 330 ohms, RCA jack (L, R) x 1 Channel 3 or 4 (Switchable)

Four head helical scan azimuth system

SP: 33.35 mm/sec, LP: 16.67 mm/sec, SLP: 11.12 mm/sec

SP: 2 HOURS (T-120), SLP: 6 HOURS (T-120)/8 HOURS (T-160)

VHF: 2-13, UHF: 14-69, CATV: 1-125 (4A, A-W, W+1 - W+84, A-5 - A-1)

12-hour display type with AM, PM

About 3 minutes (T-120)

Channel 3 or 4 (Switchable)

75 ohms (VHF/UHF)

20Hz to 20kHz More than 43dB

More than 88 dB

More than 60 dB

12.7 mm

VCR Specifications

Head system Timer Tape speed Tape width Maximum recording time Rewind time Antenna VHF output signal Channel coverage Frequency range Signal-to-noise ratio Dynamic range Channel separation

DVD Specifications

Laser system Frequency response	Semiconductor laser, wavelength 650 nm DVD (PCM 96 kHz): 8 Hz to 44 kHz, DVD (PCM 48 kHz): 8 Hz to 22 kHz
	CD: 8 Hz to 20 kHz
Signal-to-noise ratio	More than 100dB (ANALOG OUT jacks only)
Harmonic distortion	Less than 0.008%
Dynamic range	More than 95 dB (DVD/CD)

Accessories:

HDMI cable x 1, Video cable x 1, Audio cable x 1, RF 75-ohm Coaxial Cable x 1, Remote control x 1, Batteries(AAA) x 2

• Design and specifications are subject to change without notice.

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Limited United States Warranty DVD/VCR COMBINATION - Exchange Warranty

Toshiba America Consumer Products, L.L.C. ("TACP") makes the following limited warranties to original consumers in the United States. THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS DVD/VCR COMBINATION AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE

PRODUCTS PURCHASED IN THE U.S.A. AND USED IN CANADA ARE NOT COVERED BY THESE WAR-RANTIES

PRODUCTS PURCHASED IN CANADA AND USED IN THE U.S.A. ARE NOT COVERED BY THESE WAR-RANTIES.

Limited Ninety (90) Day Warranty

TACP warrant this DVD/VCR COMBINATION and its parts against defects in materials or workmanship for a period of ninety (90) days after the date of original retail purchase. DURING THE FIRST 90 DAYS FROM THE PURCHASE DATE, TACP WILL EXCHANGE A DEFEC-TIVE DVD/VCR COMBINATION WITH A NEW OR REFURBISHED PLAYER WITHOUT CHARGE TO YOU. YOU MUST CONTACT TOSHIBA'S CONSUMER SOLUTIONS CENTER FOR INSTRUCTIONS ON HOW TO PROCESS YOUR IN WARRANTY EXCHANGE REQUEST. THE CONSUMER IS RESPONSIBLE FOR ALL INBOUND TRANSPORTATION AND INSURANCE CHARGES FOR THE DVD/VCR COMBINATION TO THE EXCHANGE CENTER. DURING THE PERIOD FROM 91 DAYS AND BEYOND, FROM THE PUR-CHASE DATE, TACP WILL EXCHANGE A DEFECTIVE DVD/VCR COMBINATION WITH A NEW OR REFUR-**BISHED PLAYER FOR A NOMINAL FEE. YOU MUST** CONTACT TOSHIBA'S CONSUMER SOLUTIONS CENTER FOR INSTRUCTIONS ON HOW TO PROCESS YOUR EXCHANGE REQUEST. THE CON-SUMER IS RESPONSIBLE FOR ALL INBOUND TRANSPORTATION AND INSURANCE CHARGES FOR THE DVD/VCR COMBINATION TO THE EXCHANGE CENTER.

*Rental Units

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

*Commercial Units

DVD/VCR COMBINATIONs sold and used for commercial purposes have a limited ninety (90) day warranty for all parts, labor.

Owner's Manual and Demographic Card

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

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must provide your bill of sale or other proof of purchase.
- (2) All warranty servicing of this DVD/VCR COMBINA-TION must be made by an Authorized TACP Service Station.
- (3) The warranties from TACP are effective only if the DVD/VCR COMBINATION is purchased and operated in the U.S.A. or Puerto Rico.
- (4) Labor service charges for set installation. Set up, adjustment of customer controls and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems are your responsibility.
- (5) Warranties extend only to defects in materials or workmanship as limited above and do not extend to any DVD/VCR COMBINATION or parts which have been lost or discarded by you or to damage to DVD/VCR COMBINATION or parts caused by misuse, accident, Acts of God, such as lightning or fluctuations in electric power, improper installation, improper maintenance or use in violation of instructions furnished by TACP; or to units which have been modified or had the serial number removed, altered, defaced or rendered illegible.

How to Obtain Warranty Services

If, after following all of the operating instructions in this manual and checking the section "Troubleshooting", you find that service is needed:

- For instructions on how to obtain warranty service for exchange program DVD/VCR COMBINATIONS, contact TACP'S toll free Call Center at 1-866-583-7353.
- (2) Include your bill of sale or other proof of purchase along with the DVD/VCR COMBINATION, when sending it to the Authorized TACP Service Station SPECIFIED by transportation and insurance charges for the DVD Product to and from the Service Station.

For additional information, visit TACP's web site: www.tacp.toshiba.com

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