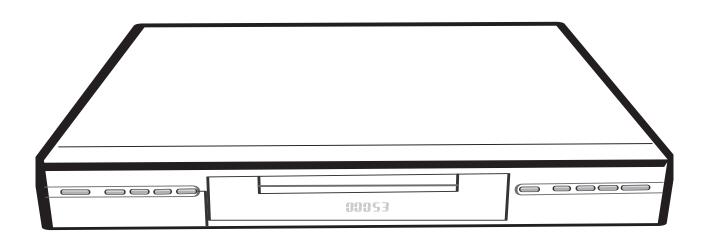


MVDR2102

User's Guide

DVD VIDEO RECORDER













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IMPORTANT SAFETY INSTRUCTIONS



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



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

This Caution Marking is located at the bottom enclosure of the unit.



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



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



The symbol for class II (Double Insulation)

CAUTION:

THIS DIGITAL VIDEO DISC PLAYER 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-SEE SERVICE PROCEDURE.

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

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

WARNING:

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

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

SURGE PROTECTORS:

It is recommended to use a surge protector for AC connection. Lightning and power surges ARE NOT covered under warranty for this product.

FCC NOTICE:

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

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

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

FCC CAUTION:

To assure continued compliance, follow the attached installation instructions and use only shielded cables when connecting to other devices. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

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

Manufactured under license from Dolby Laboratories.

"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

ATTENTION:

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

IMPORTANT SAFETY INSTRUCTIONS (CONTINUED)

IMPORTANT:

PLEASE KEEP ALL PACKAGING MATERIAL FOR AT LEAST 90 DAYS IN CASE YOU NEED TO RETURN THIS PRODUCT TO YOUR PLACE OF PURCHASE OR TO MEMOREX.

Before using the unit, be sure to read all operating instructions carefully. Please note that these are general precautions and may not pertain to your unit. For example, this unit may not have the capability to be connected to an outdoor antenna.

1. READ INSTRUCTIONS

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

2. RETAIN INSTRUCTIONS

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

3. HEED WARNINGS

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

4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

5. CLEANING

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.

6. ATTACHMENTS

Do not use attachments not recommended by the product's manufacturer as they may cause hazards.

7. WATER AND MOISTURE

Do not use this product near water–for example: near a bathtub, washbowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool.

8. ACCESSORIES

Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious injury and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.



PORTABLE CART WARNING

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

9. VENTILATION

Slots and openings in the cabinet and in the back or bottom are provided for ventilation, to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heat source. 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.

10. POWER SOURCES

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

11. GROUNDING OR POLARIZATION

This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

12. POWER-CORD PROTECTION

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

13. LIGHTNING

To protect your product from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

14. POWER LINES

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

IMPORTANT SAFETY INSTRUCTIONS (CONTINUED)

15. OVERLOADING

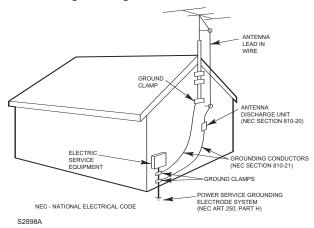
Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. OBJECT AND LIQUID ENTRY

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid on the product.

17. OUTDOOR ANTENNA GROUNDING

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



EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE

18. SERVICING

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

19. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

20. SAFETY CHECK

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

21. WALL OR CEILING MOUNTING

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

22. DAMAGE REQUIRING SERVICE

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

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e. If the product has been dropped or the cabinet has been damaged.
- f. When the product exhibits a distinct change in performance-this indicates a need for service.

23. HEAT

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

24. NOTE TO CATV SYSTEM INSTALLER

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

PRECAUTIONS

NOTES ON HANDLING:

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

NOTES ON LOCATING THE DVD RECORDER:

 When you place this DVD recorder near a TV, radio or VCR, the playback picture may become poor and the sound may be distorted. In this case, move the DVD recorder away from the TV, radio or VCR.

NOTES ON CLEANING:

Use a soft, dry cloth for cleaning.

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

Warning: Cleaning and adjustment of lenses and/or other components of playback mechanism should be performed by a qualified service technician.

TO OBTAIN A CLEAR PICTURE:

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

NOTES ON MOISTURE CONDENSATION:

Moisture condensation damages the DVD recorder. Please read the following carefully.

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

Moisture condensation occurs during the following cases:

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

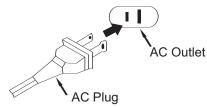
Do not use the DVD recorder when moisture condensation may occur.

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

POWER SOURCE

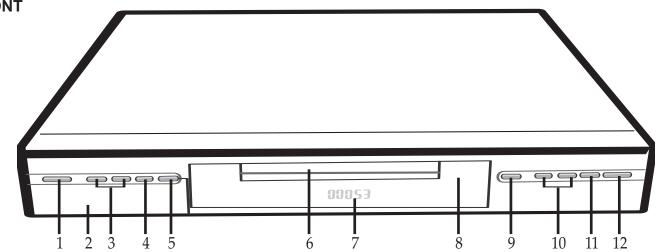
Insert the AC plug (with the 2 blades) into a conveniently located AC outlet having 120V, 60Hz.

NOTE: The AC plug supplied with the unit is polarized to help minimize the possibility of electric shock. If the AC plug does not fit into a nonpolarized AC outlet, do not file or cut the wide blade. It is the user's responsibility to have an electrician replace the obsolete outlet.



LOCATION OF CONTROLS

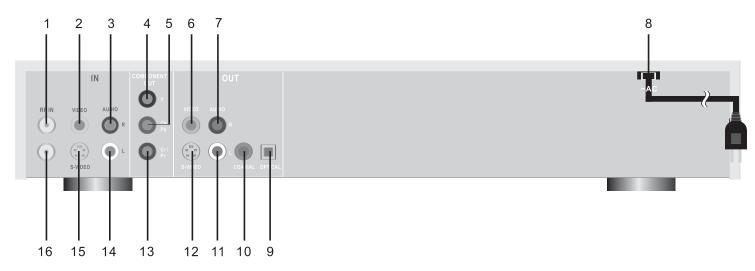
FRONT



- 1. ON/STANDBY Button
- 2. DV IN Jack, S-Video IN Jack and A/V IN Jacks (under door)
- 3. CHANNEL Up/Down Buttons
- 4. SOURCE Button
- 5. RECORD Button
- 6. Disc Tray

- 7. Display
- 8. Remote Sensor
- 9. OPEN/CLOSE Button
- 10. SKIP ₩/> Buttons
- 11. STOP (Button
- 12. PLAY/PAUSE (►II) Button

REAR

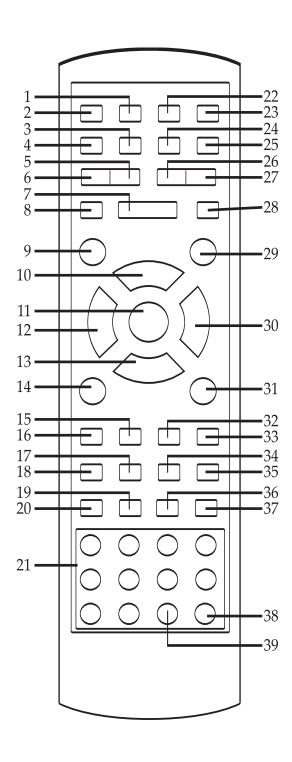


- 1. RF IN Jack
- 2. Rear Video IN
- 3. Right Audio IN (Rear Video/S-Video)
- 4. Component Y Output
- 5. Component Cb/Pb Output
- 6. Video OUT
- 7. Right Audio OUT
- 8. AC Power Cord

- 9. Optical Digital Audio Output
- 10. Coaxial Digital Audio OUT
- 11. Left Audio OUT
- 12. S-Video OUT
- 13. Component Cr/Pr Output
- 14. Left Audio IN (Rear Video & S-Video)
- 15. S-Video IN
- 16. RF OUT Jack

LOCATION OF CONTROLS (CONTINUED)

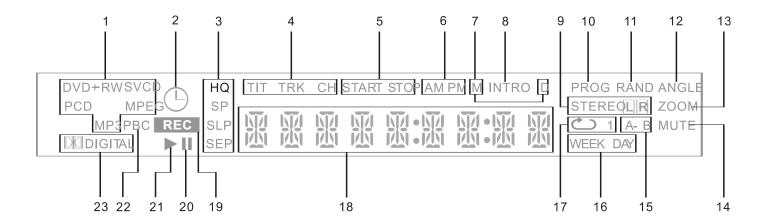
REMOTE



- 1. I/P (Interlace/Progressive) Button
- 2. SOURCE Button
- 3. HQ/SEP (Recording Quality) Button
- 4. TIMER PROGRAM Button
- 5. FWD ▶▶ Button
- 6. REV ◀◀ Button
- 7. PLAY (►) Button
- 8. PAUSE/STEP Button
- 9. DISPLAY Button
- 10. Navigation (▲) Button
- 11. ENTER Button
- 12. Navigation (◄) Button
- 13. Navigation (▼) Button
- 14. SETUP Button
- 15. PBC/TITLE Button
- 16. DVD MENU Button
- 17. ZOOM Button
- 18. PROGRAM Button
- 19. BOOKMARK Button
- 20. MUTE Button
- 21. Number (0-9) Buttons
- 22. OPEN/CLOSE Button
- 23. STANDBY ON/OFF Button
- 24. RECORD Button
- 25. TIMER Button
- 26. SKIP (₩) Button
- 27. SKIP (ℍ) Button
- 28. STOP (Button
- 29. DISC EDIT Button
- 30. Navigation (►) Button
- 31. DISC OPERATION Button
- 32. SUBTITLE Button
- 33. MTS AUDIO Button
- 34. DIGEST Button
- 35. CHANNEL Up Button
- 36. ANGLE Button
- 37. CHANNEL Down Button
- 38. Repeat A-B Button
- 39. REPEAT/PLAY MODE Button

LOCATION OF CONTROLS (CONTINUED)

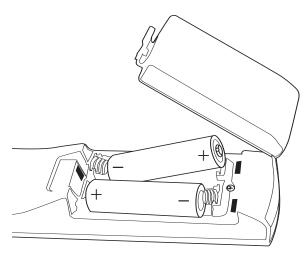
DISPLAY



- 1. Disc Indicator
- 2. Timer Indicator
- 3. Recording Quality Indicator
- 4. Title/Track/Chapter Indicator
- 5. Start Time and Stop Time Indicator
- 6. AM/PM Time Indicator
- 7. Month/Day Date Indicator
- 8. Intro/Digest Mode Indicator
- 9. Audio Stereo/Left/Right Channel Indicator
- 10. Program Mode Indicator
- 11. Random Play Indicator
- 12. Multi-Angle Indicator
- 13. Zoom Indicator
- 14. Mute Indicator
- 15. Repeat A-B indicator
- 16. Weekly/Daily/Weekday Indicator
- 17. Repeat Mode Indicator
- 18. Playing Information/Time/Counter or Message Display
- 19. Recording Activation Indicator
- 20. Pause Indicator
- 21. Disc Play Indicator
- 22. VCD Play Back Control Indicator
- 23. Dolby Digital Content Coding Indicator

REMOTE CONTROL

BATTERY INSTALLATION



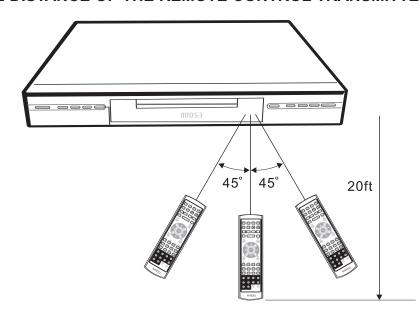
- Open the Battery Compartment cover by pushing in on the tab and lifting it out.
- 2. Install two (2) "AA" batteries (not included), paying attention to the polarity diagram in the battery compartment.
- 3. Replace the Battery Compartment cover.

BATTERY PRECAUTIONS

Follow these precautions when using batteries in this device:

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

EFFECTIVE DISTANCE OF THE REMOTE CONTROL TRANSMITTER



- When there is an obstacle between the DVD and the transmitter, the transmitter may not operate.
- When direct sunlight, an incandescent lamp, fluorescent lamp or any other strong light shines on the REMOTE SENSOR of the DVD, the remote operation may be unstable.

CONNECTION

CONNECTING THE DVD TO A TV AND CATV USING THE RF INPUT/OUTPUT JACKS

IMPORTANT:

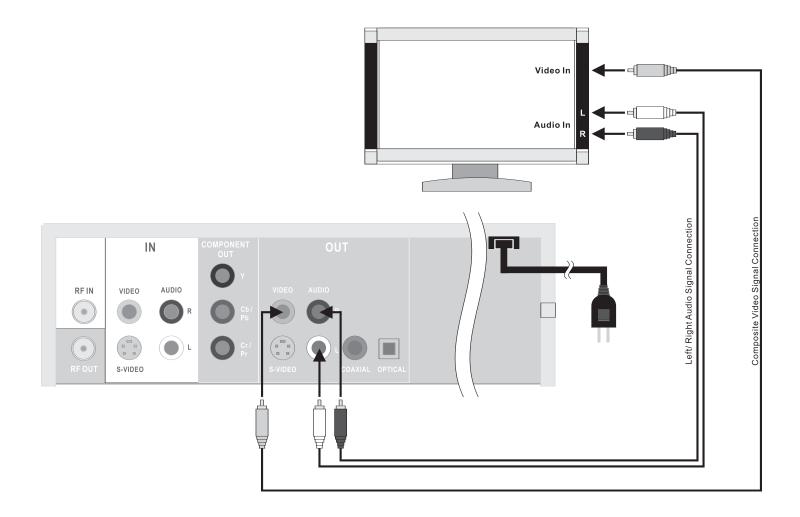
This will only send the cable/satellite signal to the TV. To play a disc, you must connect using the A/V, S-Video or component outputs as described on the following pages. To RF IN Coaxial Cable (Not Included) From RF Out Coaxial Cable (Not Included) From Source (i.e. cable, etc.) To RF IN

NOTES FOR CONNECTING TO CATV, SATELLITE, ETC.

- The signal will be sent to the TV regardless if the DVD recorder is on or off.
- If your TV has a Component input, connect the DVD recorder with the component cable for best results, otherwise use the S-Video or Video Out jack(s) on the DVD recorder.
- You can use the DVD recorder's tuner to change channels, or you can use your TV's tuner.
- When connecting the DVD Recorder, refer to the owner's manual of the TV, as well as this manual.
- When connecting the DVD Recorder to the TV, make sure the power is off and both units are unplugged before making any connections.
- Connect the DVD recorder to your TV directly. If you connect the DVD recorder through a VCR, the
 playback picture will be distorted because DVD video discs are copy protected.
- Connect a cable, etc. signal as described on this page to use the tuner capabilities of this unit and
 one of the OUT video connections on the CONNECTION-OUT pages to play a disc. If your TV only
 has an RF input, then an RF Modulator Accessory RF-150 will be required.
- After connecting, press the SOURCE button to select TV, "Tuner" and a channel number will appear
 on the TV.

CONNECTION-OUT

CONNECTING THE DVD TO A TV USING THE AUDIO/VIDEO OUTPUT JACKS

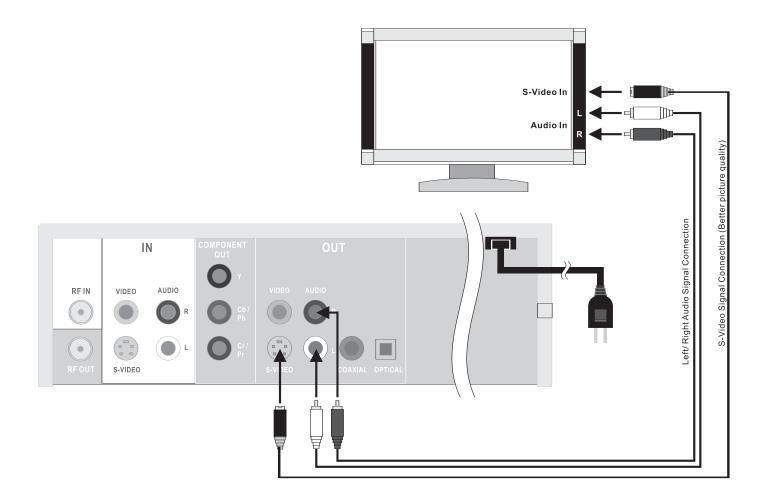


NOTES FOR CONNECTING TO A TV:

- If your TV has a Component input, connect the DVD recorder with the component cable for best results, otherwise use the S-Video or Video OUT jack(s) on the DVD recorder.
- Set the TV's TV/VIDEO button or switch to the VIDEO setting.
- When connecting the DVD Recorder, refer to the owner's manual of the TV, as well as this manual.
- When connecting the DVD Recorder to the TV, make sure the power is off and both units are unplugged before making any connections.
- If your TV only has one audio input, the use of a "Y" connector may be necessary. Visit your local electronics supply store.
- Connect the DVD recorder to your TV directly. If you connect the DVD recorder through a VCR, the playback picture will be distorted because DVD video discs are copy protected.
- Connect a cable, etc. signal as described on page 10 to use the tuner capabilities of this unit.

CONNECTION-OUT (CONTINUED)

CONNECTING THE DVD TO A TV USING THE S-VIDEO OUTPUT JACK

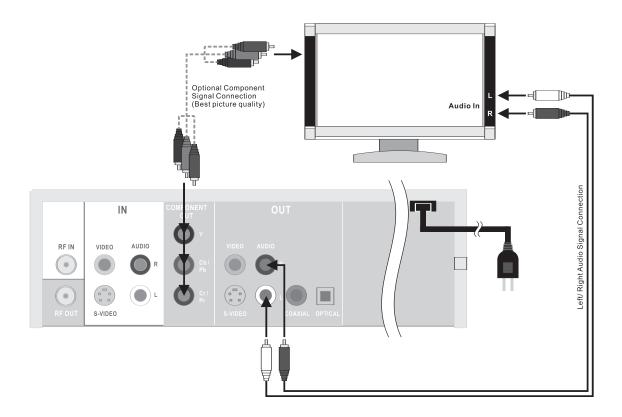


NOTES FOR CONNECTING TO A TV:

- If your TV has a Component input, connect the DVD recorder with the component cable for best results, otherwise use the S-Video or Video OUT jack(s) on the DVD recorder.
- Set the TV's TV/VIDEO button or switch to the S-VIDEO setting.
- When connecting the DVD Recorder, refer to the owner's manual of the TV, as well as this manual.
- When connecting the DVD Recorder to the TV, make sure the power is off and both units are unplugged before making any connections.
- If your TV only has one audio input, the use of a "Y" connector may be necessary. Visit your local electronics supply store.
- Connect the DVD recorder to your TV directly. If you connect the DVD recorder through a VCR, the playback picture will be distorted because DVD video discs are copy protected.
- Connect a cable, etc. signal as described on page 10 to use the tuner capabilities of this unit.
- Do NOT use the yellow video cable when connecting the unit with the S-video cable.

CONNECTION-OUT (CONTINUED)

CONNECTING THE DVD TO A TV USING THE COMPONENT JACKS



NOTES FOR CONNECTING TO A TV:

- If your TV has a Component input, connect the DVD recorder with the component cable for best results, otherwise use the S-Video or Video OUT jack(s) on the DVD recorder.
- Set the TV's TV/VIDEO button or switch to the Component/Progress (YUV) VIDEO setting.
- · When connecting the DVD Recorder, refer to the owner's manual of the TV, as well as this manual.
- When connecting the DVD Recorder to the TV, make sure the power is off and both units are unplugged before making any connections.
- Connect the DVD recorder to your TV directly. If you connect the DVD recorder through a VCR, the playback picture will be distorted because DVD video discs are copy protected.
- Connect a cable, etc. signal as described on page 10 to use the tuner capabilities of this unit.

PROGRESSIVE (YUV) VIDEO OUT:

Use these jacks to connect to a TV with progressive video input jacks. Progressive scan is a video scanning system that displays all lines in a frame in one pass, as opposed to the traditional system, interlaced scan. This connection provides optimum quality. To ensure maximum picture quality, use three video-grade cables for connections. Note that it is essential to match the color-coded connectors with a compatible TV. Press the I/P button on the remote to change between the Progressive and Interlace modes.

525 LINE DIGITAL PROGRESSIVE-SCAN COMPONENT VIDEO OUTPUT

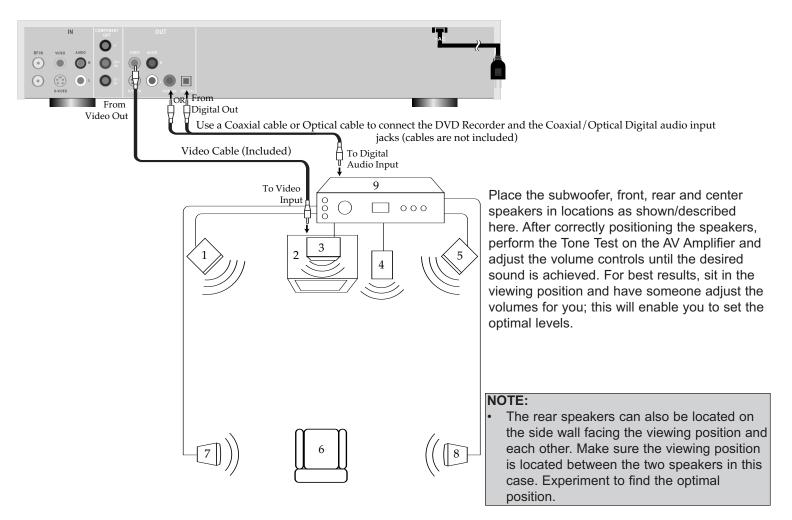
Compared to standard interlaced video, progressive scan effectively doubles the amount of video information fed to your TV or monitor. The result is a stable, flicker-free image. (Check your TV/monitor for compatibility with this feature.) For the very highest picture quality, try watching a movie on DVD-Video on a progressive-scan compatible TV. While in the Stop mode, press the I/P button on the remote control to switch between Progressive Scan and Interlace Scan or change the settings in the GENERAL setup menu.

NOTE:

• 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.

CONNECTION-OUT (CONTINUED)

CONNECTING THE DVD TO A HOME THEATRE SYSTEM



- 1. Front Left Speaker
- 2. Television
- **3. Center Speaker**—can be located on top or below the Television.
- 4. Sub-woofer-can be located anywhere in the room.
- 5. Front Right Speaker

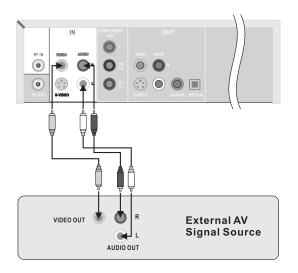
- Viewing/Listening Position—the best listening position is obtained by positioning the chair, sofa, etc. in the middle of all the speakers.
- 7. Rear Left Speaker
- 8. Rear Right Speaker
- 9. AV Amplifier w/Dolby Digital Decoder

NOTES FOR CONNECTING TO A HOME THEATER SYSTEM:

- If your TV has a Component input, connect the DVD recorder with the component cable for best results, otherwise use the S-Video or Video OUT jack(s) on the DVD recorder.
- Set the TV's TV/VIDEO button or switch to the VIDEO setting.
- When connecting the DVD Recorder, refer to the owner's manual for the TV and the audio system, as well as this
 manual.
- When connecting, make sure the power is off and all units are unplugged before making any connections.
- Connect the DVD Recorder to your TV directly. If you connect the DVD recorder through a VCR, the playback picture will be distorted because DVD video discs are copy protected.
- If using a TV with a blue screen option, turn the option off, on the TV for best results.
- If you place the DVD recorder near a tuner, the radio broadcast sound might be distorted. In this case, move the DVD recorder away from the tuner.

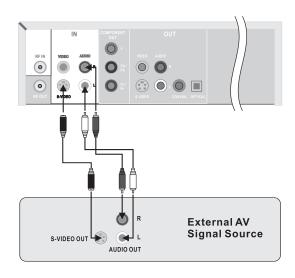
CONNECTION-IN

CONNECTING AN EXTERNAL UNIT USING THE AUDIO/VIDEO IN JACKS



After connecting, plug the AC cord into an AC outlet, then press the STANDBY ON/OFF button to turn the unit on. Press the SOURCE button repeatedly to select the rear A/V jacks, "Rear AV" will appear on the TV.

CONNECTING AN EXTERNAL UNIT USING THE S-VIDEO IN JACK



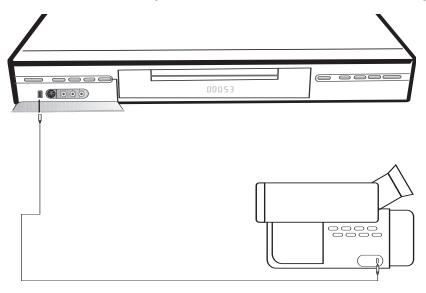
After connecting, plug the AC cord into an AC outlet, then press the STANDBY ON/OFF button to turn the unit on. Press the SOURCE button repeatedly to select the rear S-VIDEO jacks, "Rear SV" will appear on the TV.

NOTES FOR CONNECTING AN EXTERNAL UNIT

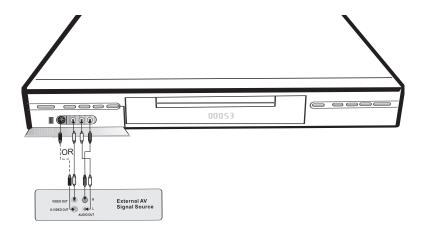
- If your external unit has a S-Video output, connect the DVD Recorder with the S-Video input jack for best quality, otherwise, use the A/V jacks.
- When connecting the DVD Recorder, refer to the owner's manual of the external unit, as well as this manual.
- When connecting the DVD Recorder, make sure the power is off and both units are unplugged before making any connections.
- If the external unit only has one audio output, the use of a "Y" connector may be necessary. Visit your local electronics supply store.
- You can also connect the unit to the front jacks for both of the above scenarios as shown on page 16.

CONNECTION-IN (CONTINUED)

CONNECTING AN EXTERNAL UNIT (SUCH AS A DIGITAL CAMCORDER) TO THE DV IN JACK



CONNECTING AN EXTERNAL UNIT USING THE FRONT S-VIDEO OR A/V IN JACK(S)



NOTES FOR CONNECTING AN EXTERNAL UNIT

- The DV IN connection will provide the best quality, followed by the S-Video and then the A/V jacks.
- If your external unit has a S-Video output, connect the DVD Recorder with the S-Video input jack for best quality, otherwise, use the A/V jacks.
- When connecting the DVD Recorder, refer to the owner's manual of the external unit, as well as this manual.
- When connecting the DVD Recorder, make sure the power is off and both units are unplugged before making any connections.
- After connecting, plug the AC cord into an AC outlet, then press the STANDBY ON/OFF button to turn the unit on.
 Press the SOURCE button repeatedly to select the DV IN jack, "DV" will appear on the TV.
- After connecting, plug the AC cord into an AC outlet, then press the STANDBY ON/OFF button to turn the unit on. Press the SOURCE button repeatedly to select the front S-Video IN jack, "Front SV" will appear on the TV.
- After connecting, plug the AC cord into an AC outlet, then press the STANDBY ON/OFF button to turn the unit on. Press the SOURCE button repeatedly to select the front Audio/Video IN jack, "Front AV" will appear on the TV.
- If the external unit only has one audio output, the use of a "Y" connector may be necessary. Visit your local electronics supply store.

ABOUT DISCS

The region number for this DVD recorder is: See the following page for information regarding region numbers.



PLAYABLE DISCS:

The following discs can be played back on this DVD recorder:











RECORDABLE DISCS:

The Recorder can record with the following discs.









MP3

When playing an MP3, the TV screen will list the folders/tracks.

MP3 is the abbreviation of "MPEG1 Audio Layer 3". MPEG Audio is a format that compresses the audio portion only. **IMPORTANT NOTES:**

Due to many variables, including recording condition, type of disc, writing software, etc., this unit does not guarantee playback of all MP3 discs.

DISC TYPES:

DVD

Data on most DVDs is divided into sections called "titles" and then into subsections called "chapters", each of which is given a title or chapter number. Some features of this DVD recorder will not operate with some DVD discs as they are preset. If a function you selected does not run as desired, refer to the manual accompanying the DVD disc.

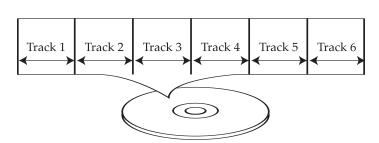
Chapter 1 Chapter 2 Chapter 3 Chapter 4 Chapter 1 Chapter 2

AUDIO CD

Data on an audio CD is divided into sections called "tracks", each of which is given a track number.

KODAK PICTURE CD

Data on a Kodak picture CD is usually not divided into separate folders, they should appear in the root directory.



IMPORTANT:

It is important that you read the manual that accompanies the DVD disc, as there are features that are on the DVD recorder that cannot be used with certain DVDs. There are also extra features on the DVD disc that are different for each DVD disc, so they are not explained in this owner's manual.

ABOUT DISCS (CONTINUED)

Notes on Copyright:

It is forbidden by law to copy, broadcast, show, broadcast on cable, play in public and rent copyrighted material without permission. DVD video discs are copy protected, and any recordings made from these discs will be distorted. 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.

Region Management Information:

This DVD recorder is designed and manufactured to respond to the Region Management Information that is recorded on a DVD disc. If the Region number described on the DVD disc does not correspond to the Region number of this DVD recorder, this DVD recorder cannot play that disc. You may not be able to play back some DVD video discs on this player if they were purchased from outside your geographic area or made for business purposes. When you try to play back an unauthorized disc, "Wrong Region" appears on the TV screen.

FAQs

What is the difference between a DVD+/-R and DVD+/-RW?

A DVD+/-R (Recordable DVD) can only be recorded on once and a DVD+/-RW (Rewriteable) can be recorded on over one thousand times.

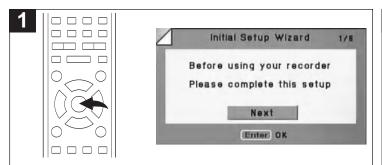
Can I use a DVD cleaning disc?

No, you cannot use a DVD cleaning disc in DVD recorders as the optical unit (laser) operates at a higher power than DVD or CD players and may damage the unit.

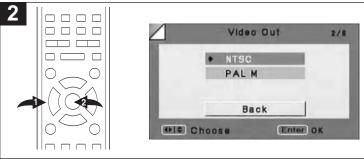
INITIAL SETUP WIZARD

TV SETUP PAGE:

When the recorder is turned on the first time, there will be several wizard pages displayed one by one which will allow you to set the basic options as follows:

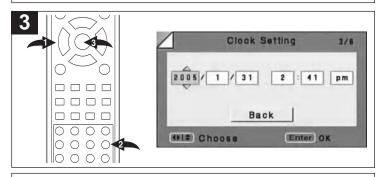


At the first screen, press the ENTER button to advance to the next screen.

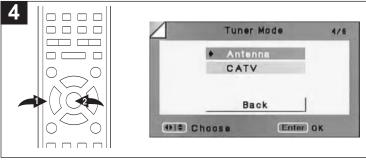


The TV Type selection will appear. Select the desired TV Type (NTSC or PAL M) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

To go back to the previous page, select BACK using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . **NOTE:** Select NTSC for USA markets.

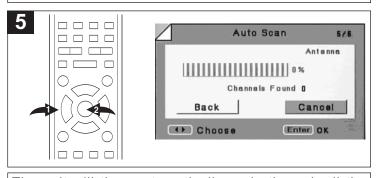


The Clock Setting selection will appear. Select the desired year using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet or using the Number buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet . Repeat to set the month, day, hour, minute and AM/PM. Then, press the ENTER button \bullet .



The Tuner Mode selection will appear. Select the desired Tuner Mode (Antenna or CATV) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

To go back to the previous page, select BACK using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button \bullet .



The unit will then automatically cycle through all the channels and store active channels into memory.

To cancel the scanning, select Cancel using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons ①, then press the ENTER button ②. To return to the previous page, select BACK using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons ①, then press the ENTER button ②.



The Complete screen will appear. Select FINISH using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons \bullet , then press the ENTER button \bullet .

To go back to the previous page, select BACK using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons \bullet , then press the ENTER button \bullet .

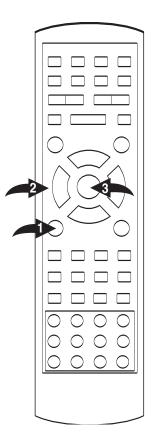
INITIAL SETUP MENU

INITIAL SETUP MENU:

The setup menu lets you customize the DVD recorder by allowing you to select various preferences.

- 1. Without a disc inside the disc tray, press the SETUP button **1** to enter the Setup Menu.
- 2. Select the INIT SETUP menu using the Navigation (◄,►) buttons ②, then press the ENTER button ③ to select it.
- 3. Select one of the Initial Setup pages at the top of the screen (see the following pages for descriptions) using the Navigation (◄,►) buttons ❷.
- 4. Use the Navigation (▲, ▼) buttons ② to select one of the setup options, then press the Navigation (►) button ② to select it.
- 5. Use the Navigation (▲,▼) buttons ② to select the desired setting, then press the ENTER button ③ to make the change. Press the Navigation (◄) button ② repeatedly to return to the Initial Setup page or press the SETUP button ① to exit setup.

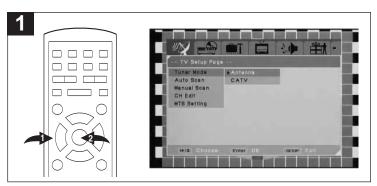
NOTE: Some options may not be available due to the Source setting. For example, if not in the Tuner mode, the Auto Scan feature cannot be selected.



TV SETUP PAGE:

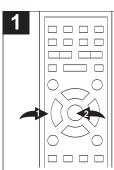
While in the TV Tuner mode, enter the Initial Setup menu as described on page 20, select TV SETUP PAGE using the Navigation (◀,▶) buttons, then select/change the setup option as described on page 20. This unit is equipped with a channel memory feature which allows channels to skip up or down to the next channels set into memory, skipping over unwanted channels. Before selecting channels, they must be programmed into the unit's memory. In addition to normal VHF/UHF channels, this unit can receive up to 125 Cable TV channels. First set the TUNER MODE option, then follow the steps in Auto Channel scan below.

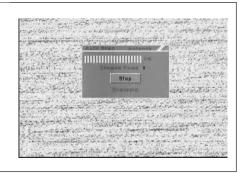
SETTING TUNER MODE OPTION



While in the TV Tuner mode, enter the INITIAL SETUP menu as described on page 20. Select the TV SETUP page at the top of the screen using the Navigation $(\blacktriangleleft,\blacktriangleright)$ buttons \P , then press the Navigation (\blacktriangledown) buttons \P to select it. Select TUNER MODE using the Navigation $(\blacktriangle,\blacktriangledown)$ buttons \P , then the Navigation (\blacktriangleright) button \P to select it. Select ANTENNA or CATV using the Navigation $(\blacktriangle,\blacktriangledown)$ buttons \P , then press the ENTER button \P . Select CATV if using cable television or ANTENNA if using an outdoor antenna.

AUTO CHANNEL SCAN



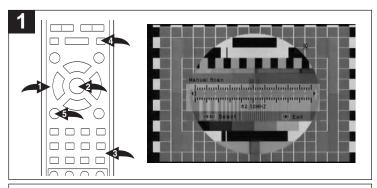


Follow the steps in Setting Tuner Mode Option, then select AUTO SCAN using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet followed by the ENTER button \bullet ; the unit will then automatically cycle through all the channels and store active channels into memory.

NOTES:

- During Auto Scan, press the ENTER button ❷ to cancel searching.
- It is highly recommended to perform the Auto Channel Scan to scan all channels and store the active channels into memory when first using the set. If you have not scanned for the available channels or stations, then you may not be able to record the TV channel.

MANUAL SCAN



It is recommended to perform AUTO SCAN instead of MANUAL SCAN. You can perform Manual Scan, which will scan through the channels and allow you to add them as desired. To do this, select MANUAL SCAN using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet followed by the ENTER button \bullet . Select the channel memory using the Channel Up or Down buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet and the unit will cycle through and stop at the first available station. If you want to keep the station, select OK using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons \bullet then press the ENTER button \bullet ; the station will be saved on the channel. OR select CANCEL using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons \bullet then press the ENTER button \bullet . Press the Navigation (\blacktriangleright) button \bullet to scan for the next available station. Repeat this step until the desired station is searched. NOTES:

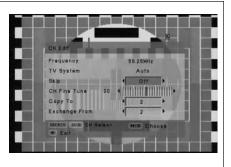
- During Manual Scan, press the STOP () button 4 to cancel searching.
- Press the SETUP button 6 to exit the Manual Scan screen.
- When all the available stations are searched, then "Scan is Over" will appear on the screen, press the ENTER button ❷ followed by the Navigation (►) button ❶ to search for the desired station again.

NOTE:

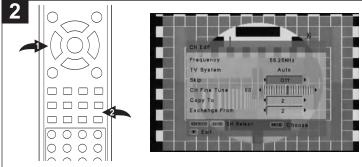
To return to the previous page, press the Navigation
 (◄) button.

EDITING TV CHANNELS





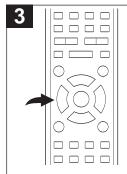
While viewing a channel that you would like to edit, enter the INITIAL SETUP menu as described on page 20. Select the TV SETUP page at the top of the screen using the Navigation (◀,▶) buttons ①, then press the Navigation (▼) button ① to select it. Select CH EDIT using the Navigation (▲,▼) buttons ①, then press the ENTER button ②; the CH EDIT screen will appear.

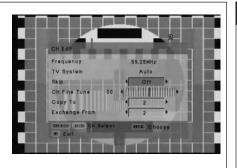


Follow procedure in step 1.

To Skip the currently viewed channel select SKIP using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet to select ON to skip the channel when using the Channel Up or Down buttons \bullet .

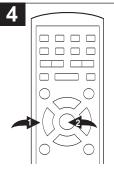
To Add the currently viewed channel select SKIP using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet to select OFF to not skip the channel when using the Channel Up or Down buttons \bullet .

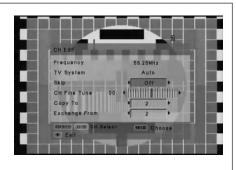




Follow procedure in step 1.

To Fine Tune the currently viewed channel select CH FINE TUNE using the Navigation (\blacktriangle , \blacktriangledown) buttons, then press the Navigation (\blacktriangleleft , \blacktriangleright) buttons repeatedly to fine tune the selected station as desired.





Follow procedure in step 1.

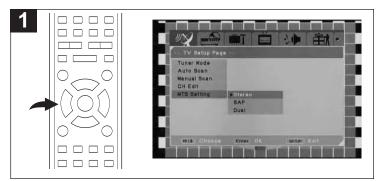
To Copy the currently viewed channel into another channel number, select COPY TO using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet then select the desired channel number using the Navigation (\blacktriangleleft , \blacktriangleright) buttons \bullet . When done, press the ENTER button \bullet to make the change.

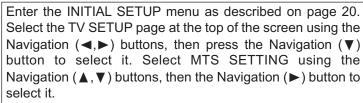
To Exchange the currently viewed channel with another channel number, select EXCHANGE FROM using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet then select the desired channel number using the Navigation (\blacktriangleleft , \blacktriangleright) buttons \bullet . When done, press the ENTER button \bullet to make the change.

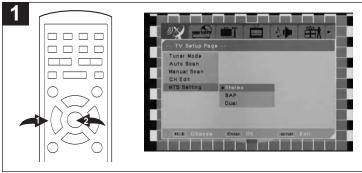
- To Edit another TV channel, use the Channel Up or Down buttons or the Number buttons to enter the desired channel to view and edit.
- To exit setup, press the SETUP button.

MTS SETTING

Some TV programs broadcast additional audio. In most cases this means an additional language is available. For example, if a program is available in English and Spanish, Spanish can be broadcast as the additional audio program. To record TV programs in stereo, SAP or Dual, you can select Stereo, SAP or Dual as the default setting.







Select the desired setting using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons $\mathbf{0}$, then press the ENTER button $\mathbf{2}$.

Stereo: record TV program in stereo.

SAP (Secondary Audio Program): record TV program in SAP.

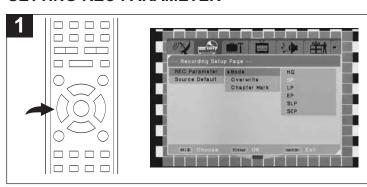
Dual: record TV program in Dual.

- This setting does not become active until the sound of a TV program is transmitted in Stereo or SAP.
- When you playback the recording, you can playback the sound only in the setting you selected for recording (i.e., a recording in SAP can be played back only in SAP).

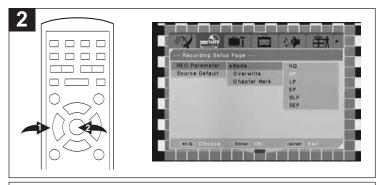
RECORDING SETUP PAGE:

Enter the Initial Setup menu as described on page 20, then select RECORDING SETUP PAGE using the Navigation (◄,►) buttons, then select/change the setup option.

SETTING REC PARAMETER



Enter the INITIAL SETUP menu as described on page 20. Select the RECORDING SETUP page at the top of the screen using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the Navigation (\blacktriangledown) button to select it. Select REC PARAMETER using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then press the Navigation (\blacktriangleright) button to select it.



Select Mode using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet . Select the desired recording mode (see below) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

 $\mbox{\bf HQ}$ (High Quality): video quality is the highest, and has approximately 1 hour recording time.

SP (Standard Play): video quality is excellent, and has approximately 2 hours recording time.

LP (Long Play): video quality is very good, and has approximately 3 hours recording time.

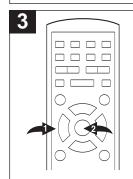
EP (Extended Play): video quality is better then VHS, and has approximately 4 hours recording time.

SLP (Super Long Play): video quality is equal to VHS, and has approximately 6 hours recording time.

SEP (Super Extended Play): video quality less than VHS, and has approximately 8 hours recording time.

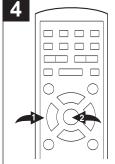
Select a recording mode to define the picture quality of recordings and the maximum recording time for a disc. For playback, the correct picture quality will automatically be selected.

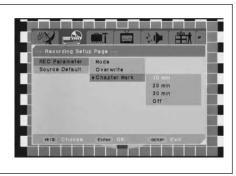
NOTE: You can also use the HQ/SEP button to cycle through the above options.





If using a Rewriteable disc, you can choose to overwrite existing recordings by selecting OVERWRITE using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it. Then select ON to enable overwriting or OFF to disable overwriting using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . When you select ON for the overwrite function, then if you insert a recorded DVD+/-RW into the unit and start recording, during recording, the existing titles/programs on the disc will be overwritten by the new titles/programs.



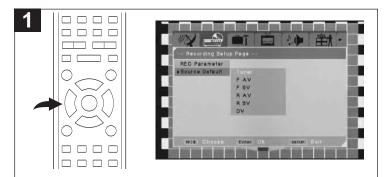


Too add automatic chapter markers during recording, select CHAPTER MARK using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet to select it. Select the desired time interval to record before entering a Chapter Mark using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button \bullet . Select OFF if you do not want Chapter Marks recorded.

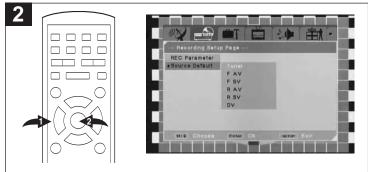
- To return to the previous page, press the Navigation (◄) button.
- To exit setup, press the SETUP button.

SOURCE DEFAULT

Select the desired default source for Timer Recording as follows:



Enter the INITIAL SETUP menu as described on page 20. Select the RECORDING SETUP page at the top of the screen using the Navigation $(\blacktriangleleft,\blacktriangleright)$ buttons, then press the Navigation (\blacktriangledown) button to select it. Select SOURCE DEFAULT using the Navigation $(\blacktriangle,\blacktriangledown)$ buttons, then the Navigation (\blacktriangleright) button to select it.



Select the desired default source setting using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button

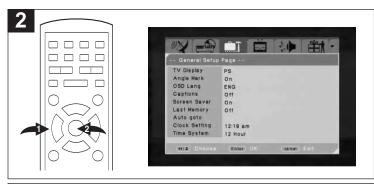
GENERAL SETUP PAGE:

Select GENERAL SETUP PAGE using the Navigation (◄,►) buttons, then select/change the setup option as described on page 20.

TV DISPLAY



Enter the INITIAL SETUP menu as described on page 20. Select the GENERAL SETUP page at the top of the screen using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the Navigation (\blacktriangledown) button to select it.



Select TV DISPLAY using the Navigation (▲,▼) buttons ①, then the Navigation (▶) button ① to select it. Select the desired setting using the Navigation (▲,▼) buttons ①, then press the ENTER button ②.

Normal/PS: use when you connect a normal TV to the recorder. Displays a wide picture on the whole TV screen with a portion (right and left sides of the picture) automatically cut off.

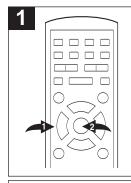
Normal/LB: use when you connect a normal TV to the recorder. Displays a wide picture with bands displayed on the upper and lower portions of the screen.

Wide: use when you connect a wide screen TV to the system. **NOTE:** TV DISPLAY can only be selected during playback of a disc; otherwise, TV DISPLAY won't be available to be selected.

NOTES:

- Some wide-screen discs that do not permit Pan & Scan mode playback are automatically played in Letterbox mode.
- Depending on the DVD, 4:3 Letterbox may be selected automatically instead of 4:3 Pan & Scan and vice versa.
- You must also set the screen mode on your wide screen TV to "FULL".
- If WIDE is selected and a normal TV is connected, 16:9 content will appear distorted during playback (objects look thin).

ANGLE MARK

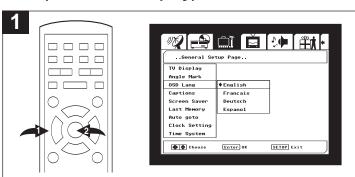




Enter the GENERAL SETUP page as described in step 1 above. Select ANGLE MARK using the Navigation (\blacktriangle , \blacktriangledown) buttons \odot , then the Navigation (\blacktriangleright) button \odot to select it. Use the Navigation (\blacktriangle , \blacktriangledown) buttons \odot to select ON to turn the anglemarks on and OFF to turn them off, then press the ENTER button \odot .

Anglemarks are not available on all DVDs.

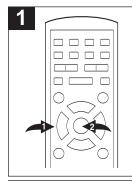
OSD (On-Screen Display) LANGUAGE



Enter the GENERAL SETUP page as described in step 1 on page 26. Select OSD LANG using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it. Select the desired language (English, French, German and Spanish) for the On-Screen Display to display text using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

NOTE: The DVD must have the language included in order to display it.

CAPTIONS

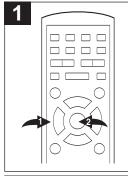




Enter the GENERAL SETUP page as described in step 1 on page 26. Select CAPTIONS using the Navigation (▲,▼) buttons ①, then the Navigation (▶) button ① to select it. Turn Captions ON or OFF using the Navigation (▲,▼) buttons ①, then press the ENTER button ②.

When this option is set to ON, closed captions will appear on the screen for the hearing impaired (if originally recorded on the DVD). When this option is OFF, the closed captions will not appear.

SCREEN SAVER





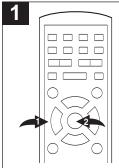
Enter the GENERAL SETUP page as described in step 1 on page 26. Select SCREEN SAVER using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it.

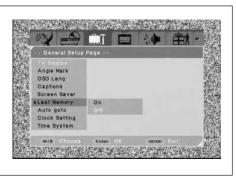
Turn the Screen Saver ON or OFF using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button \bullet .

When this option is set to ON, the screen saver will come on when a disc is paused for approx. 5 minutes.

When this option is OFF, the screen saver will not come on.

LAST MEMORY





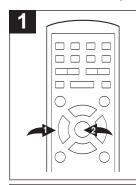
Enter the GENERAL SETUP page as described in step 1 on page 26. Select LAST MEMORY using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it.

Turn Last Memory ON or OFF using the Navigation (▲,▼) buttons **①**, then press the ENTER button **②**.

When this option is set to ON, during playback of a DVD or VCD, if you change the unit to another source or stop playback, when you playback the disc again, it will resume to the last segment before it stops. However, if the disc is changed, there will be no Last Memory function and it will just playback the disc from the beginning.

When this option is OFF, the segment will not be saved.

AUTO GO TO (For DV Input)



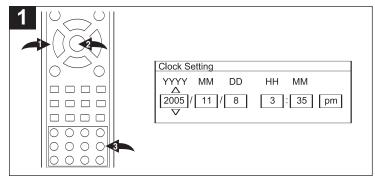


Enter the GENERAL SETUP page as described in step 1 on page 26. Select AUTO GO TO using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet twice to select it.

Turn "AUTO GO TO" ON or OFF using the Navigation (▲, ▼) buttons •, then press the ENTER button •.

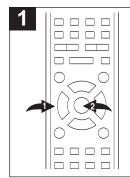
When this option is set to ON, the unit will automatically switch to the DV input when a DV plug is inserted (with the power on) into the front DV jack. When this option is OFF, the feature is not activated.

CLOCK SETTING



Enter the GENERAL SETUP page as described in step 1 on page 26. Select CLOCK SETTING using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then the ENTER button \bullet to select it. Set the year using the Number buttons \bullet or the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet ; the Month field will be highlighted. Set the month, day, hour, minute and AM/PM (if using 12 Hour Time System) fields following this same procedure, and then press the ENTER button \bullet ; the date and time will be set.

TIME SYSTEM



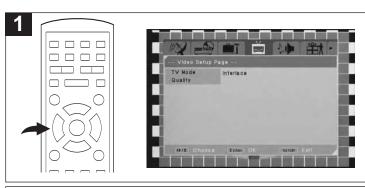


Enter the GENERAL SETUP page as described in step 1 on page 26. Select TIME SYSTEM using the Navigation (\triangle , \blacktriangledown) buttons \bullet , then the Navigation (\triangleright) button \bullet to select it. Select 12 HOUR (USA Standard) or 24 HOUR using the Navigation (\triangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

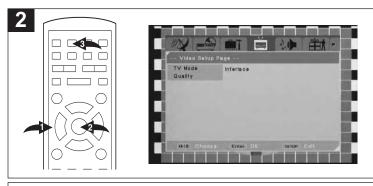
VIDEO SETUP PAGE:

Enter the Initial Setup menu as described on page 20, then select VIDEO SETUP PAGE using the Navigation (◀,▶) buttons, then select/change the setup option.

TV MODE



Enter the INITIAL SETUP menu as described on page 20. Select the VIDEO SETUP page at the top of the screen using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the Navigation (\blacktriangledown) button to select it. Select TV MODE using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then the Navigation (\blacktriangleright) button to select it.



Select the desired setting using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button \bullet .

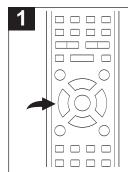
INTERLACE: Select Interlace when connecting via other methods.

PROGRESSIVE-SCAN: Select P-SCAN when connected to the Component jacks for a more stable, flicker free picture.

You can also use the I/P button ❸ to select the Progressive or Interlace modes.

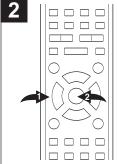
NOTE: For Progressive-Scan, your TV must have the Progressive-Scan function with the Component Input jacks. Otherwise, select Interlace mode.

QUALITY





Enter the INITIAL SETUP page as described on page 20. Select the VIDEO SETUP icon at the top of the screen using the Navigation (\blacktriangleleft , \blacktriangleright) buttons, then press the Navigation (\blacktriangleright) button to select it. Select QUALITY using the Navigation (\blacktriangle , \blacktriangledown) buttons, then the Navigation (\blacktriangleright) button to select it.



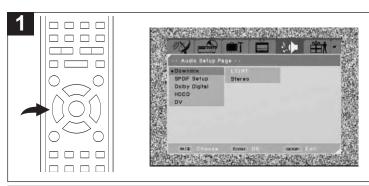


Select the desired option to adjust (Brightness, Contrast, Hue or Saturation) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . At the next screen, adjust the selected setting using the Navigation (\blacktriangleleft , \blacktriangleright) buttons \bullet , then press the ENTER button \bullet

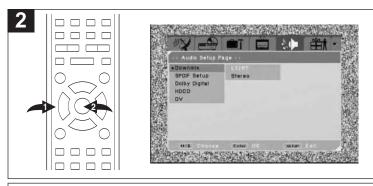
AUDIO SETUP PAGE:

Enter the Initial Setup menu as described on page 20, then select AUDIO SETUP PAGE using the Navigation (◀,▶) buttons, then select/change the setup option.

DOWNMIX



Enter the INITIAL SETUP menu as described on page 20. Select the AUDIO SETUP page at the top of the screen using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the Navigation (\blacktriangledown) button to select it.

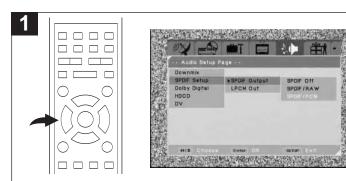


Select DOWNMIX using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons ①, then press the Navigation (\blacktriangleright) button ① to select it. Select the desired setting using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons ①, then press the ENTER button ②.

LT/RT: The source will be downmixed into two channels with encoded Dolby Prologic surround information.

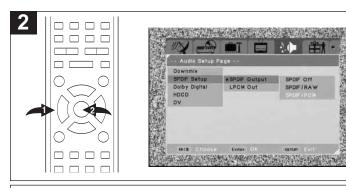
STEREO: Only the original front stereo channels will be output. Surround information will be lost.

SPDIF



Enter the AUDIO SETUP page as described in step 1 above. Select SPDIF SETUP using the Navigation (\blacktriangle , \blacktriangledown) buttons, then the Navigation (\blacktriangleright) button to select it.

Select SPDIF OUTPUT or LPCM OUT using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then press the Navigation (\blacktriangleright) button. See the next step for the parameters for each option.



If you select SPDIF, then select the desired setting using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . **SPDIF Off:** Digital audio output is off.

SPDIF/RAW: Dolby Digital signals are going out unchanged to the digital output. MPEG-2 multi-channel signals are converted to PCM (Pulse Code Modulation).

SPDIF/PCM: Dolby Digital and MPEG-2 multi-channel signals are converted to PCM (Pulse Code Modulation).

If you select LPCM, then select the desired sampling frequency using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons ①, then press the ENTER button ②.

48K: set the LPCM sampling frequency to 48 kHz from digital audio output.

96K: set the LPCM sampling frequency to 96 kHz from digital audio output.

DOLBY DIGITAL-DUAL MONO



Enter the AUDIO SETUP page as described in step 1 on the previous page. Select DOLBY DIGITAL using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it.

Select DUAL MONO using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet .

Select the desired Dual Mono setting using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons ①, then press the ENTER button ②.

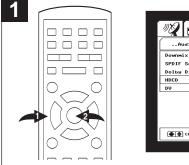
STEREO: Select to set the Dolby Digital output to Stereo mode.

L-MONO: Select to set the Dolby Digital output to left mono mode, meaning it will reproduce the left mono signal to the Left and Right channels.

R-MONO: Select to set the Dolby Digital output to right mono mode, meaning it will reproduce the right mono signal to the Left and Right channels.

MIX-MONO: Select to reproduce both channels mixed together.

HDCD





Enter the AUDIO SETUP page as described in step 1 on the previous page. Select HDCD using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet twice to select it. Select the desired HDCD setting using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

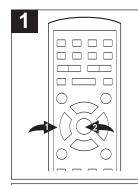
Off: disable the Filter.

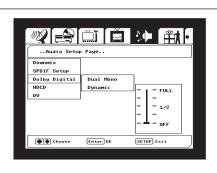
1X: set to normal sampling.

2X: set to double sampling.

NOTE: The HDCD function is for HDCD discs only.

DOLBY DIGITAL-DYNAMIC





In many listening situations, it is objectionable to allow the sound to become very loud, and thus the loudest sounds must be compressed downwards in level. Likewise, the very quiet sounds would be inaudible and must be brought upwards in level to be heard. Dolby Digital satisfies these needs through the dynamic range controlling. Select the dynamic range compression to fit the individual listening situation.

Enter the AUDIO SETUP page as described in step 1 on the previous page and the DOLBY DIGITAL option as described in the previous step. Select DYNAMIC using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button 2 to select it.

Select the desired Dynamic setting using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

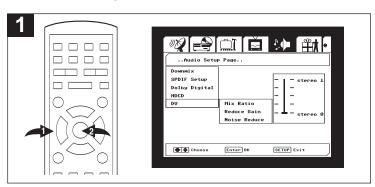
FULL: Audio with fully compressed dynamic range.

7/8~1/8: Audio with partially compressed dynamic range.

OFF: Audio with uncompressed dynamic range.

NOTE: Dynamic Range setting only supports Dolby Digital programs.

DV-MIX RATIO



Enter the AUDIO SETUP page as described in step 1 on page 30. Select DV using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it.

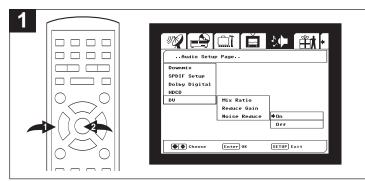
Select MIX RATIO using the Navigation (\triangle , ∇) buttons $\mathbf{0}$, then press the ENTER button $\mathbf{2}$.

Select the desired Mix Ratio setting using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons $\mathbf{0}$, then press the ENTER button $\mathbf{0}$.

For the Stereo 0, it is the original recorded audio channel and the Stereo 1 is the later editing audio channel. Set the balance between Stereo 0 and Stereo 1 as desired.

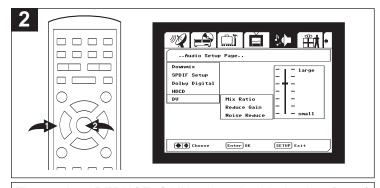
NOTE: If you set the slider towards Stereo 1 and the DV input does not have a later audio edit, there may be no sound for the audio output.

DV-NOISE REDUCE/REDUCE GAIN



To use the REDUCE GAIN, you must turn on NOISE REDUCE. Enter the AUDIO SETUP page as described in step 1 on page 30 and DV as described in the previous step. Select NOISE REDUCE using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it.

Select ON (or OFF to turn this off) using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons ①, then press the ENTER button ②. Press the Navigation (\blacktriangleleft) button ① to return to the DV Setting page.

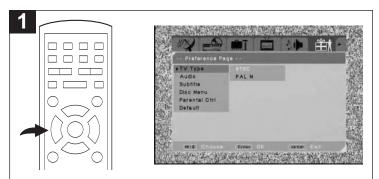


Then select REDUCE GAIN using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the ENTER button \bullet to select it. Select the desired Reduce Gain setting using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . Set the slider towards LARGE for a larger reduction of the gain or set the slider towards SMALL for a smaller reduction of the gain.

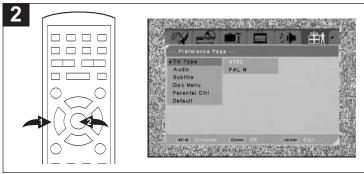
PREFERENCE SETUP PAGE:

Enter the Initial Setup menu as described on page 20, then select PREFERENCE SETUP PAGE using the Navigation (◀,▶) buttons, then select/change the setup option.

TV TYPE



Enter the INITIAL SETUP menu as described on page 20. Select the PREFERENCE SETUP page at the top of the screen using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the Navigation (\blacktriangledown) button to select it.



Select TV TYPE using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it. Select the desired setting to match your TV set (NTSC or PAL M) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet .

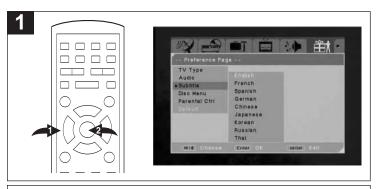
NOTE: In the U.S.A., the TV Type is NTSC.

AUDIO



Enter the PREFERENCE PAGE as described in step 1 on this page. Select AUDIO using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it. Select the language the DVD will be played back in (ENGLISH, FRENCH, SPANISH, GERMAN, CHINESE, JAPANESE, KOREAN, RUSSIAN OR THAI) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . The DVD must be recorded in the selected language, otherwise the default language of the DVD will be played.

SUBTITLE



Enter the PREFERENCE PAGE as described in step 1 on this page. Select SUBTITLE using the Navigation (▲,▼) buttons ●, then the Navigation (▶) button ● to select it. Select the language the Subtitle (OSD) will be in (ENGLISH, FRENCH, SPANISH, GERMAN, CHINESE, JAPANESE, KOREAN, RUSSIAN, THAI OR OFF) using the Navigation (▲,▼) buttons ●, then press the ENTER button ❷. The DVD must be recorded in the selected language,

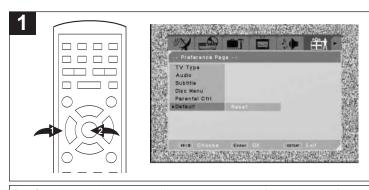
The DVD must be recorded in the selected language, otherwise the default language of the DVD will be shown.

DISC MENU



Enter the PREFERENCE PAGE as described in step 1 on page 33. Select DISC MENU using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it. Select the language the DISC MENU will be in (ENGLISH, FRENCH, SPANISH, GERMAN, CHINESE, JAPANESE, KOREAN, RUSSIAN OR THAI) using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the ENTER button \bullet . The DVD's DISC MENU must be made in the selected language, otherwise the default language of the DVD will be shown.

DEFAULT



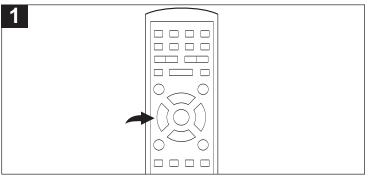
Performing this step will reset the unit's options (time, preferences, etc.) to their factory settings.

Enter the PREFERENCE PAGE as described in step 1 on page 33. Select DEFAULT using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the ENTER button \bullet to reset the unit.

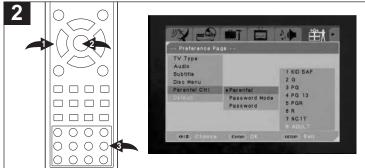
- The Parental Password will not be set to default.
- Make sure there is no disc inside the disc tray; otherwise, you may not be able to select the DEFAULT setting.

SETTING THE RATING LEVEL

The Rating Level enables parents to prevent their children from watching inappropriate material on a DVD. It reads the ratings for programming, then denies access to programming if the program's rating meets the limitations you select. In this case, the user will have to enter a password.



Enter the PREFERENCE PAGE as described in step 1 on page 33. Select PARENTAL CTRL using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then the Navigation (\blacktriangleright) button to select it. Select PARENTAL using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then the Navigation (\blacktriangleright) button to select it.



Press the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet to select the desired rating as follows:

KIDSAFE: Under 17 years Kidsafe. R: old, Parental All ages. G: PG: Parental Guidance Guidance. strongly PG 13: Parental suggested. Guidance less NC17: 17 years old

than 13 years old. and above.

PGR: Under 17 years ADULT: Adult only.

old, Parental Guidance suggested.

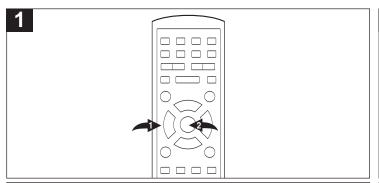
Press the ENTER button ② to confirm. If you selected a rating lower than the one set, you will have to enter the password using the Number buttons ③, then press the ENTER button ②.

NOTE: The default password is 1234.

INITIAL SETUP MENU (CONTINUED)

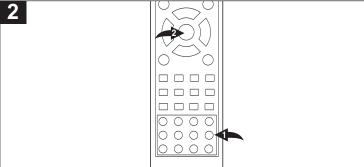
CHANGING THE PASSWORD

Select this option to change the password.



Enter the PREFERENCE PAGE as described in step 1 on page 33. Select PARENTAL CTRL using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then the Navigation (\blacktriangleright) button \bullet to select it.

Select PASSWORD using the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then the Navigation (\blacktriangleright) button \bullet once followed by the ENTER button \bullet to select it.

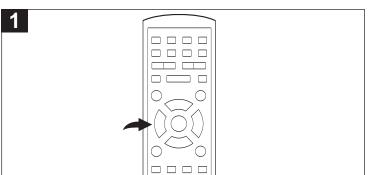


Enter the Old Password, New Password and Confirm Password using the Number buttons **1**, then press the ENTER button **2**; the new password will be set, make sure to write it down.

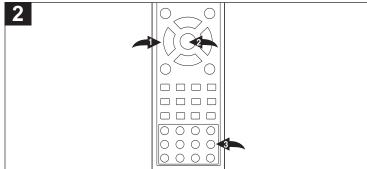
NOTE: The default password is 1234.

PASSWORD MODE

Select this option to enable or disable the password protection when you change the Rating Level as described on the previous page.



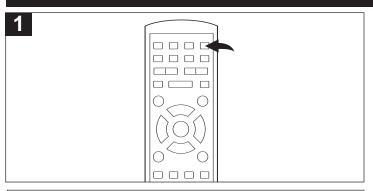
Enter the PREFERENCE PAGE as described in step 1 on page 33. Select PARENTAL CTRL using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then the Navigation (\blacktriangleright) button to select it. Select PASSWORD MODE using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons, then the Navigation (\blacktriangleright) button to select it.



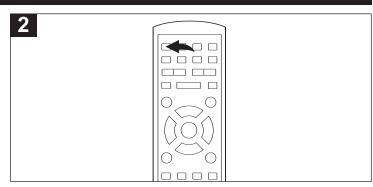
Turn this option ON (you need to enter the password to change the Rating Level setting) or OFF (you do not need to enter the password to change the Rating Level setting) using Navigation (\triangle , \blacktriangledown) buttons ① then press the ENTER button ②. You will have to enter the password using the Number buttons ③, then press the ENTER button ②.

NOTE: The default password is 1234.

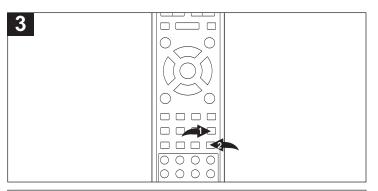
TUNER OPERATION



Press the STANDBY ON/OFF button to turn on the unit.

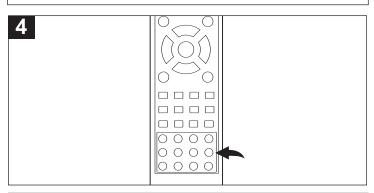


Press the SOURCE button to select TV, "Input Tuner" and a channel number will appear on the TV. If there is no signal for the channel, "No signal" will appear on the screen.



For proper operation, before selecting channels, they must be set into the TV's program memory, see page 21.

Press and release the CHANNEL Up $\bf 0$ or Down $\bf 2$ button. The TV automatically stops at the next channel set into memory.



Direct Program Selection buttons (0-9)

Use these buttons to select a channel. The channel number will appear at the top right corner of the screen.

For ANTENNA, enter a two digit channel number; i.e., enter "02" for Channel 2, enter "69" for Channel 69, etc.

For CATV, enter a three digit channel number; i.e., enter "002" for Channel 2, enter "125" for Channel 125, etc.

NOTE:

 When ANTENNA/CATV option is set to ANTENNA, only channels from 02 to 69 can be selected. When set to CATV, channels up to 125 can be selected.

FAQs:

Why do I only receive up to channel 69, when my cable goes much higher?

ANTENNA/CATV menu option must be set to CATV when using cable, see page 21.

Why are some channels scrambled?

You must subscribe to these channels through your cable company.

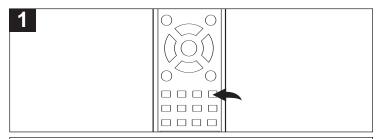
DVD BASIC OPERATION (GENERAL)

IMPORTANT:

When "\sum " appears while pressing a button, this means that the corresponding function cannot be performed either on the disc inserted, or in the selected mode.

AUDIO MODE

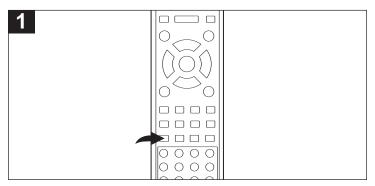
You can cycle between the audio modes as follows:



For DVD, Press the MTS AUDIO button repeatedly to cycle through the audio languages available on the playing DVD. Separate languages must be recorded on the DVD to use this feature.

For CD/VCD, Press the MTS AUDIO button repeatedly to cycle through L-Mono (Mono Left), R-Mono (Mono Right), Stereo and Mix-Mono.

MUTE



Press the Mute button to turn off the sound; the unit's sound will be silenced and the Mute indicator will appear at the left bottom side on the screen. (For MP3 discs, "Mute" will appear on the screen.) The sound can be turned back on by pressing this button again.

DVD BASIC OPERATION

DISPLAY BUTTON (DVD MODE):

While playing a DVD, press the DISPLAY button to view the control options. Press the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons to select the desired icon, then press the ENTER button to select it. Once selected, press the Navigation $(\blacktriangle, \blacktriangledown)$ buttons or the Number buttons to change the option, then the ENTER button, if required, to confirm the change. When finished, press the DISPLAY button to remove the control options from the TV screen.



Title: Select this option and enter the desired title using the Number buttons or Navigation $(\blacktriangle, \blacktriangledown)$ buttons; the selected title will then start playing automatically. The first number is the current title and the second number is the total titles.



Chapter: Select this option and enter the desired chapter using the Number buttons or Navigation (\blacktriangle , \blacktriangledown) buttons; the selected title will then start playing automatically. The first number is the current chapter and the second number is the total chapters.



Elapsed Time: The chapter's elapsed time will appear. Press the ENTER button to select, enter the desired time to start playback using the Number buttons; the DVD will start playing at the selected time. Press the Navigation (▼) button once to view the remaining time of the chapter, press twice to view the title's elapsed time, press three times to view the title's remaining time and press a fourth time to return to show the elapsed time again.



Audio Setting: Select this option and enter the desired audio setting using the Navigation (\blacktriangle , \blacktriangledown) buttons followed by the ENTER button. You can also change the setting using the MTS AUDIO button.



Subtitle: Select this option and select the desired Subtitle Language (if recorded on the DVD) using the Navigation (\blacktriangle , \blacktriangledown) buttons followed by the ENTER button. You can also change this setting by pressing the SUBTITLE button.



Repeat: Select this option and select the desired Repeat setting (Off, CH-Chapter, TT-Title or All) using the Navigation (\triangle , \blacktriangledown) buttons.



A-B Repeat: Select this option and press the Navigation (▼) button when the desired starting segment is playing to set point A. Press the Navigation (▼) button again when the desired ending segment is playing to set point B; the unit will then automatically start playing this segment repeatedly.

To cancel, press the Navigation (▼) button again.



Random: Select this option and turn the Random feature On or Off using the Navigation (\blacktriangle , \blacktriangledown) buttons followed by the ENTER button.

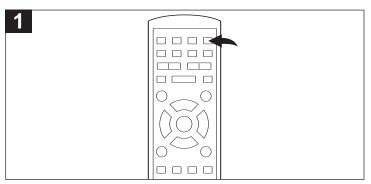


Language: Select this option and select the desired Language (English, French, German or Spanish) the menus will be in using the Navigation (\blacktriangle , \blacktriangledown) buttons followed by the ENTER button.

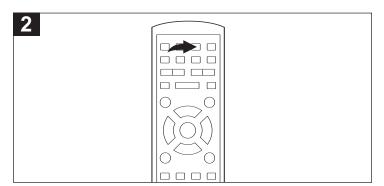
IMPORTANT NOTES:

- "S" will appear on the TV screen during operation if you try to access a function that is not available on the disc.
- · Some discs may take a few seconds to load.
- If a disc is inserted incorrectly, dirty, damaged, or is not present at all, "NO DISC" will appear in the display.
- Always hold the disc without touching either of its surfaces. When inserting a disc, position it with the printed title side facing up, align it with the guides and place it in its proper position.
- It is important that you read the manual that accompanies the DVD disc as there are features that are on this DVD recorder that cannot be used with certain DVDs. There are also extra features that are different for each DVD disc, so they are not explained in this owner's manual.
- While the DVD Recorder is in another mode (FRONT AV,FRONT SV, etc), press the PLAY (▶) button to change the recorder to DVD mode and start playback of the disc.

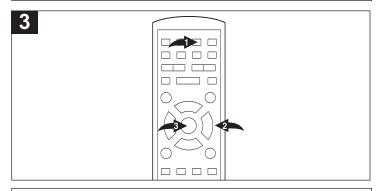
PLAYBACK OF A DVD



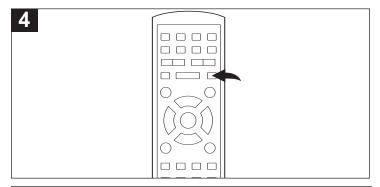
Press the STANDBY ON/OFF button to turn on the unit. The Source mode (TV Tuner, Front AV, Front SV, etc.) screen will appear.



Press the OPEN/CLOSE button to open the disc tray. Insert a disc with the label side facing up on the disc tray.



Press the OPEN/CLOSE button ① to close the disc tray. "LOADING" will appear on the screen. After loading, the menu screen of the DVD Video should appear. Use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons ② to select the desired option and the ENTER button ③ to select it.

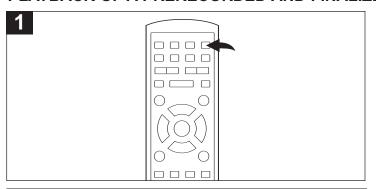


To stop playback, press the STOP (III) button. Then, the unit will return back to the Source mode (TV Tuner, Front AV, Front SV, etc.).

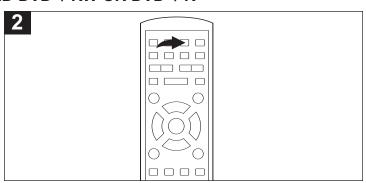
NOTE

For information on Resuming Playback, see "Last Memory" section on page 27.

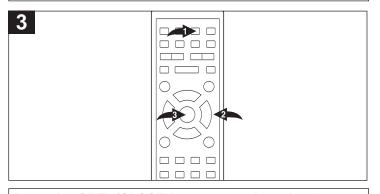
PLAYBACK OF A PRERECORDED AND FINALIZED DVD+/-RW OR DVD+/-R



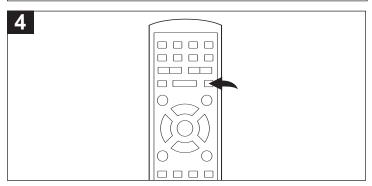
Press the STANDBY ON/OFF button to turn on the unit. The Source mode (TV Tuner, Front AV, Front SV, etc.) screen will appear.



Press the OPEN/CLOSE button to open the disc tray. Insert a disc with the label side facing up on the disc tray.



Press the OPEN/CLOSE button ① to close the disc tray. "LOADING" will appear on the screen. After loading, the index screen of the DVD should appear. Use the Navigation (\triangle , \blacktriangledown) buttons ② to select the desired title to play and the ENTER button ③ to select it; playback will start automatically.

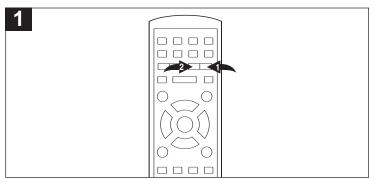


To stop playback, press the STOP (■) button.

NOTE:

• After finishing playback of all titles, the index screen of the DVD will appear on the TV screen.

SKIP



Press the Skip $(\red{\blacktriangleright})$ button \bullet to advance the DVD to the beginning of the next chapter.

Press the Skip (⋈) button ② to move the DVD to the beginning of the current chapter; repeatedly press to move the DVD to the beginning of the previous chapters.

PAUSE/STEP

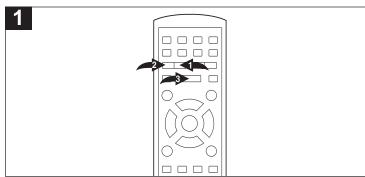
Use this feature to pause and/or step frame by frame.

Press the PAUSE/STEP button • once to pause the picture.

Repeatedly press the PAUSE/STEP button **1** to play the DVD one frame at a time.

Press the PLAY (▶) button ② to resume normal playback.

SEARCH

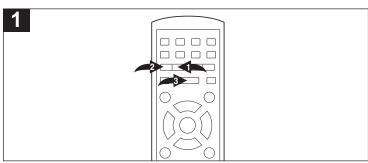


During playback, press either the Search ▶▶ ① button or Search ◀ ② button to move the DVD forward or backward at double (x2) speed to locate a specific section. Repeatedly press these buttons and the speed will increase to x4, x8, x16, x32 and resume normal playback.

The DVD will move forward or backward at high speed until the PLAY (▶) button ⑤ is pressed; normal playback will resume at that point.

SLOW/F

Use this feature to move the DVD in slow motion.

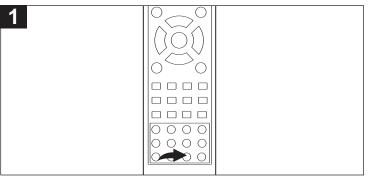


Pause the unit as shown in the previous step. Press either the Search ▶▶ ① button or Search ◄ ② button to move the DVD forward or backwards in slow motion speeds of 1/2, 1/4, 1/8, 1/16 and resume normal playback. The sound will be muted.

The player will move forward in slow motion until the PLAY (►) button ③ is pressed; normal playback will resume at that point.

REPEAT PLAYBACK

While playing back a DVD, this unit can repeatedly play back a chapter, title or the entire DVD.

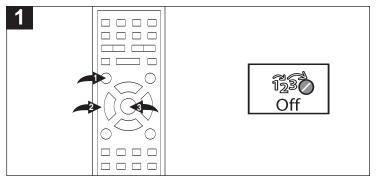


While in the Playback mode, press the REPEAT button once to repeatedly playback the current chapter; the display icons will appear temporarily at the top of the screen with "CH" (Chapter) appearing under the Repeat icon. Press the REPEAT button a second time to repeatedly playback a title; "TT" will appear under the Repeat icon. Press the REPEAT button a third time to repeat the entire DVD; "ALL" will appear under the Repeat icon. Press the REPEAT button once more to cancel Repeat mode; "OFF" will appear under the Repeat icon.

NOTE: Each time you press the REPEAT button, the display icons will appear at the top of the screen for 3 seconds then disappear.

RANDOM PLAYBACK

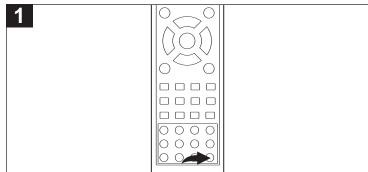
While playing back a DVD, this unit can randomly playback the chapters on the DVD disc.



Press the DISPLAY button \bullet once, then scroll over to the Random icon (see above) using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons \bullet , then press the Navigation (\blacktriangledown) button \bullet . Select ON to turn Random feature On or OFF to turn Random feature off, then press the ENTER button \bullet .

A-B REPEAT PLAYBACK

While playing back a DVD, this unit can repeatedly play back a specific section.



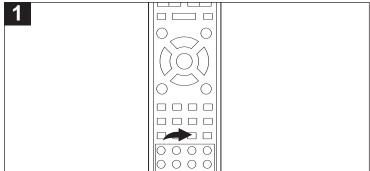
While in the Playback mode, press the Repeat A-B button when the desired starting segment is playing to set point A. Press the A-B button again when the desired ending segment is playing to set point B; the unit will then automatically start playing this segment repeatedly.

To cancel, press the Repeat A-B button again.

NOTE: Each time you press the Repeat A-B button, the display icons will appear at the top of the screen for 3 seconds then disappear.

ANGLE

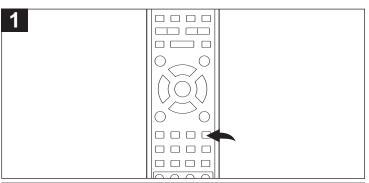
Some discs may contain scenes which have been shot simultaneously from a number of different camera angles. This feature only works on discs with more than one camera angle. The jacket will be marked with "[2]".



While in the Playback mode, press the ANGLE button; the total number of angles will appear on the screen. Repeatedly press the ANGLE button to select the desired angle; the angle will change in one to two seconds.

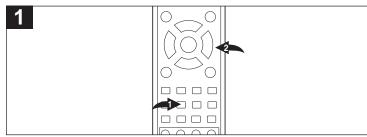
This is not available on all discs.

AUDIO



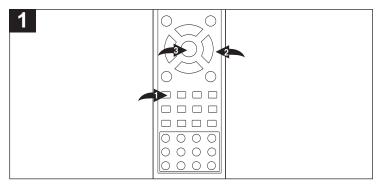
While in the Play mode, press the MTS AUDIO button and the display icons will appear at the top of the screen temporarily. Repeatedly press the MTS AUDIO button to select the desired audio setting. This is not available on all discs.

ZOOM



Press the ZOOM button \bullet once during Normal, Slow or Pause playback modes, and the unit will zoom x2. Press two or three times and the unit will zoom x3/x4. Press the ZOOM button \bullet a fourth time and the unit will zoom out x1/2. Press a fifth or sixth time to zoom out x1/3 or x1/4. While zoomed in, use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons \bullet to move the image on the TV screen. Press the ZOOM button \bullet once more to cancel. This is not available on all discs.

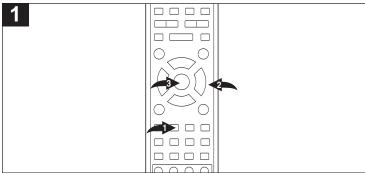
DVD MENU



While in the Play mode, press the DVD MENU button ①, and the Main Menu of the disc will appear. Use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons ② to select the desired option, and then press the ENTER button ③.

This is not available on all discs.

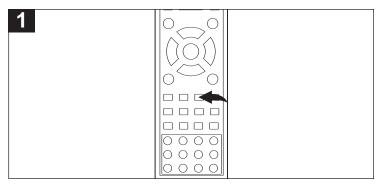
TITLE MENU



While in the Play mode, press the PBC/TITLE button ①, and the Title Menu of the disc will appear. Use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons ② to select the desired option, and then press the ENTER button ③.

This is not available on all discs.

SUBTITLE MENU

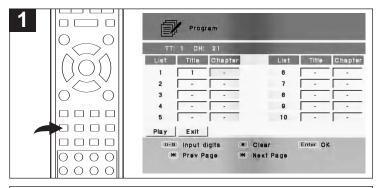


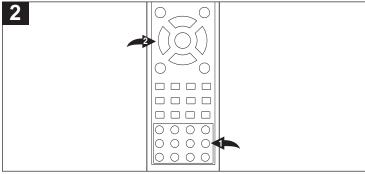
While in the Play mode, press the SUBTITLE button and the display icons will appear at the top of the screen. Repeatedly press the SUBTITLE button to select a subtitle language, and to turn the subtitle on/off. This is not available on all discs.

- Some DVDs have automatic subtitles by default, so you cannot turn subtitles on or off.
- After pressing the SUBTITLE button, subtitles may not appear immediately during some scenes.
- If subtitles are off and text still appears on the screen, make sure the Closed Captions option is off (see page 27).

PROGRAMMED PLAYBACK

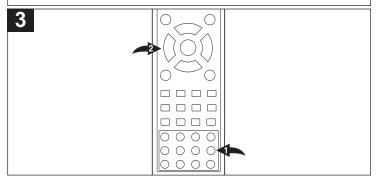
The DVD player in this unit has a 20 chapter programmable memory that allows you to program up to 20 chapters on any disc for playback in any desired order. You may program 20 different chapters or you may also program certain chapters to play more than once. To perform programmed playback, proceed as follows:

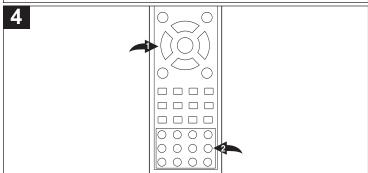




While in the Playback mode, press the PROGRAM button; the Program screen will appear.

In the left Title column, enter the desired Title number of the first program using the Number buttons ①, then press the Navigation (\blacktriangleright) button ② to move to the Chapter column. **NOTE:** It is not possible to enter a title number higher than the DVD has recorded on it.

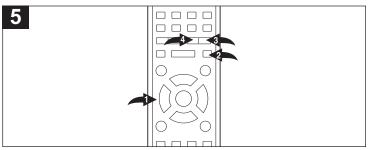


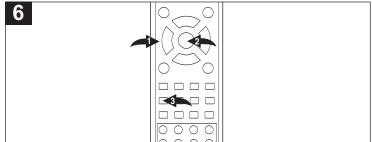


Enter the desired Chapter number of the first program using the Number buttons ①, then press the Navigation (\blacktriangledown) button ② to move to the next program number. Repeatedly enter the Title and Chapter numbers of the programs as desired.

NOTE: It is not possible to enter a chapter higher than the DVD has recorded on it.

To change a program's Title and Chapter, select the desired program's Title using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons \bullet , then enter the new Title number using the Number buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet to move to the Chapter column and enter the Chapter number using the Number buttons \bullet .





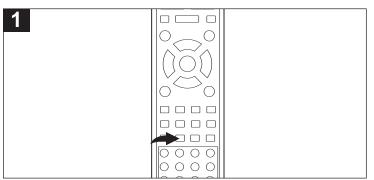
To delete the last program, use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons to highlight the last program title number, then press the STOP \blacksquare button ② to delete it.

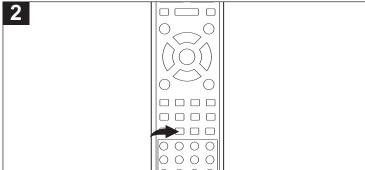
To program more than 10 Chapters, after you have entered the Title and Chapter numbers for the tenth program, press the Skip (►) button ⑤. Then enter the Title and Chapter number as described in Step 2 & 3 to enter programs up to 20 chapters. Press the Skip (►) button ⑥ to return to Programs 1-10.

To start Program playback, scroll to PLAY using the Navigation $(\blacktriangleleft,\blacktriangleright,\blacktriangle,\blacktriangledown)$ buttons \P , then press the ENTER button \P . The program menu screen will disappear. To cancel Program playback and clear the program, press the Program button \P ; the program menu screen will appear. Select STOP using the Navigation $(\blacktriangleleft,\blacktriangleright)$ buttons \P . Then press the ENTER button \P to cancel and clear the Program playback. To exit the program menu screen, scroll to EXIT using the Navigation (\blacktriangledown) button \P ; then press the ENTER button \P . The program menu screen will disappear and normal playback of the DVD disc will resume.

BOOKMARK

This unit can allow you to bookmark up to 12 sections of a DVD for later viewing as follows:





During playback of a DVD disc, when the desired scene appears, press the BOOKMARK button. The Bookmark menu will appear temporarily on the screen which indicates that the first bookmark has been added. Repeat this step to bookmark up to 12 sections.

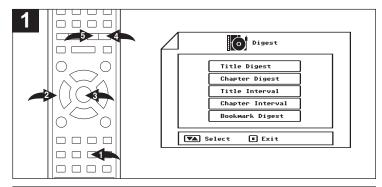
NOTE: After the 12th bookmark is added, if you press the Bookmark button, the first bookmark will be replaced by the new bookmark.

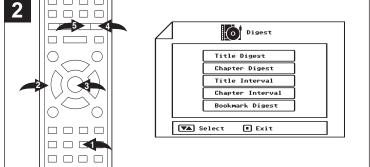
To view the scenes bookmarked in Step 1, see the Bookmark digest section on the next page.

NOTE: You must bookmark the scenes and view the bookmarked scenes during Playback mode; if you stop playback, all the bookmarks will be erased.

DIGEST

The Digest function allows the user to view the DVD disc digests according to five options: Title Digest, Chapter Digest, Title Interval, Chapter Interval and Bookmark Digest.





TITLE DIGEST:

During playback of a DVD disc, press the Digest button $m{0}$; the Digest menu will appear (see above). Select Title Digest using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons $m{0}$, then press the ENTER button $m{0}$; the Title Digest screen will appear. Use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons $m{0}$ to highlight the desired title, then press the ENTER button $m{0}$ to start playback of the title. If there are more than six titles, press the Skip (\blacktriangleright) button $m{0}$ to view the higher-numbered Title Digest screens. To view the lower-numbered Title Digest screens, press the Skip (\blacktriangleright) button $m{0}$. You can also highlight the (\blacktriangleleft) icon and then press the ENTER button $m{0}$ to resume playback OR highlight the (\blacktriangleleft) icon and then press the ENTER button $m{0}$ to return to the Digest menu.

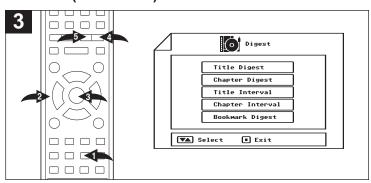
NOTE: The number of Title Digest screens depends on the total number of Titles on the disc.

CHAPTER DIGEST:

During playback of a desired title, press the Digest button \odot ; the Digest menu will appear. Select Chapter Digest using the Navigation (\blacktriangle , \blacktriangledown) buttons \odot , then press the ENTER button \odot ; all the Chapters' Digest screens of the Title will appear. Use the Navigation (\blacktriangleleft , \blacktriangleright , \bigstar) buttons \odot to highlight the desired Chapter, then press the ENTER button \odot to start playback of the Chapter. If there are more than six Chapters, press the Skip (\blacktriangleright) button \odot to view the higher- numbered Chapter Digest screens. To view the lower- numbered Chapter Digest screens, press the Skip (\blacktriangleright) button \odot . You can also highlight the (\frown) icon and then press the ENTER button \odot to resume playback OR highlight the (\frown) icon and then press the ENTER button \odot to return to the Digest menu.

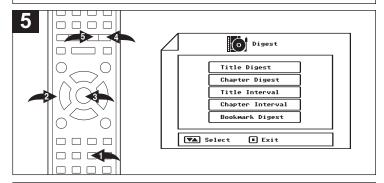
NOTE: The number of Chapter Digest screens depends on the total number of Chapters of the selected title.

DIGEST (continued)



TITLE INTERVAL:

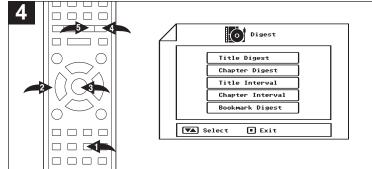
During playback of a DVD disc, press the Digest button \odot ; the Digest menu will appear. Select Title Interval using the Navigation (\blacktriangle , \blacktriangledown) buttons \odot , then press the ENTER button \odot ; the Interval screens will appear. For Title Interval, the disc will be divided by 10-minute intervals. You can use the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons \odot to highlight the desired starting time screen, then press the ENTER button \odot to start playback of the Interval. Press the Skip (\blacktriangleright) button \odot or (\blacktriangleright) button \odot to skip to the next/previous page (if it is available) to view the other Interval screens. You can also highlight the (\frown) icon and then press the ENTER button \odot to resume playback OR highlight the (\frown) icon and then press the ENTER button \odot to return to the Digest menu. **NOTE:** The Interval numbers depends on the total playback



BOOKMARK DIGEST:

time of the disc.

During playback of a DVD disc, press the Digest button ●; the Digest menu will appear. (IMPORTANT! Make sure you have marked the bookmarks as described on the previous page. Otherwise, the Bookmark Digest option will not appear on the Digest menu.) Select Bookmark Digest using the Navigation (▲,▼) buttons ②, then press the ENTER button 9; the Bookmark Digest screen will appear. For Bookmarks 1-6, use the Navigation (◀,▶,▲,▼) buttons ② to highlight the desired Bookmark, then press the ENTER button 6 to start playback of the Bookmarked scene. For Bookmarks 7-12, press the Skip (M) button 4 to view the Bookmark Digest screens. Press the Skip (⋈) button • to return to view the Bookmarks 1-6 Digest screen. You can also highlight the (←) icon and then press the ENTER button **3** to resume playback OR highlight the (**5**) icon and then press the ENTER button 6 to return to the Digest menu. NOTE: The number of Bookmark Digest screens depends on the number of Bookmarks which you marked (up to 12).

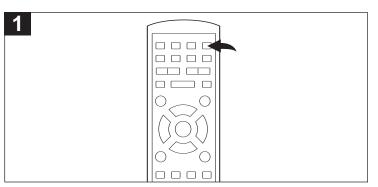


CHAPTER INTERVAL:

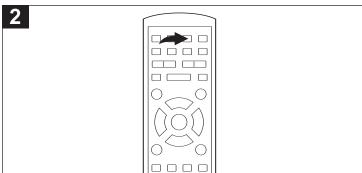
NOTE: The Interval numbers depends on the total playback time of the disc.

MP3 BASIC OPERATION

PLAYBACK OF A MP3 DISC



Press the STANDBY ON/OFF button to turn on the unit. The Source mode (TV Tuner, Front AV, Front SV, Rear AV, etc.) screen will appear.



Press the OPEN/CLOSE button to open the disc tray, "OPEN" will appear on the screen. Insert an MP3 disc with the label side facing up on the disc tray.





Area (A)–File Navigation Window–will list the folders and files on the disc in tree structure. Move the cursor with the Navigation (\triangle , \blacktriangledown) buttons.

To select a file for playback, move the purple cursor to highlight the target file and then press ENTER button. To explore a folder, move the purple cursor to highlight the target folder name and then press ENTER button. The files or sub-folders inside will be listed.

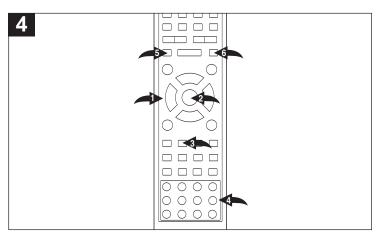
To close a folder, move the purple cursor to highlight the opened folder name and then press ENTER button. The opened folder will close.

Area (B)–File Path Window–shows the path of the playing file.

Area (C)—Play Status Window—shows the playing status: the Playback Track number, Total Tracks number, playback status, playtime, Track time, Bit rate of the Track, Mute On/Off, Playback mode.

Area (D)–File Information Window–displays the Spectrum during playback of MP3 files.

Press the OPEN/CLOSE button to close the disc tray. "LOADING" will appear on the screen. After loading, the screen above will appear.



Select the desired folder using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button ②; the files will then appear. Select a file using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button ②; the track will then play. You can also press the PCB/TITLE button ③, then select the file number using the Number buttons ④, then press the ENTER button ②

using the Number buttons **9**, then press the ENTER button **9** twice to play the selected track. (NOTE: you need to enter a four-digit number for the track number; i.e., for the first track, enter "0001".

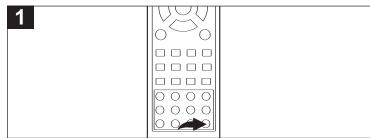
To pause playback, press the PAUSE/STEP button **9**; the Pause indicator will appear on the top on the screen. Press the PAUSE/STEP button **9** again to resume playback.

Press the STOP () button () to stop playback.

PLAYBACK MODE

1

A-B REPEAT PLAYBACK



While in the Playback mode, press the REPEAT button to cycle through the Playback modes as follows:

Random: The files in the selected folder are played back in random order. The playback will be non-stop.

Single: Only the selected file is played. Playback will be stopped after the selected song is finished playing.

Repeat One: The selected song will be played repeatedly. **Repeat Folder:** All the songs in the folder, excluding subfolders, will be repeatedly played.

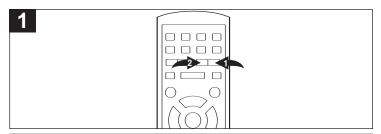
Folder: When the last song in the folder is finished playing,

playback stops.

While in the Playback mode, press the Repeat A-B button when the desired starting segment is playing to set point A. Press the A-B button again when the desired ending segment is playing to set point B; the unit will then automatically start playing this segment repeatedly.

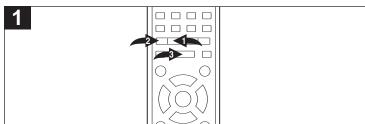
To cancel, press the A-B button again.

SELECTING FOLDERS/TRACKS



During playback, press the SKIP (\bowtie) \bullet or (\bowtie) \bullet button to skip to the next or previous track.

SEARCH



During playback, press either the Search ▶▶ ● button or Search ◄ ● button to move the file forward or backward at double (x2) speed to locate a specific section. Repeatedly press these buttons and the speed will increase to x4, x8, x16, x32 and resume normal playback. The disc will move forward or backward at high speed until the PLAY (▶) button ❸ is pressed again; normal playback will resume at that point.

NOTE: During playback of a MP3 file, press the Display button to select between the Track Elapsed Time and Track Remaining Time.

MP3 FAQs (Frequently Asked Questions) Please read before playing an MP3 disc.

What is an MP3 file?

An MP3 file is a computer format that makes a large music file into a smaller one which is more convenient to download and share. Can I record my own MP3 CDs?

Yes, but you need a CD recorder, which is available from your local computer store.

Where can I find MP3 files?

MP3 files are available on the Internet.

Can this unit read regular music CDs?

Yes, it can. However, you cannot mix MP3s and WAV files on the same CD. If you do this, the unit will play only the MP3 files.

Can I use the MP3 extension for non-audio data files?

No, this may result in a serious malfunction and harmful noise interference.

Can I mix MP3 files with other file types on the CDR?

Yes, but the unit will ignore those files and read only the MP3 files on the CDR.

Does this unit support subdirectories (subfolders)?

Yes, it can read MP3 files from subfolders.

CD/VCD BASIC OPERATION

DISPLAY BUTTON (CD/VCD MODE):

While playing a disc, press the DISPLAY button to view the control options. Press the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons to select the desired icon, then press the ENTER button to select it. Once selected, press the Navigation $(\blacktriangle, \blacktriangleright)$ buttons or the Number buttons to change the option, then the ENTER button, if required, to confirm the change. When finished, press the DISPLAY button again to remove the control options from the TV screen.



Tracks: The first number is the current track and the second number is the total tracks on the disc. Select this option and enter the desired track number using the Number buttons; the selected track will then start playing automatically.



Track/Disc Elapsed/Remaining Time: Select this option then press the Navigation (\blacktriangle , \blacktriangledown) buttons to cycle through the Track Elapsed time, Track Remaining time, Total Elapsed time, Total Remaining time. When you select the Track or Disc Elapsed time, press the ENTER button, then you will be able to enter the desired time of the track or disc for playback using the Number buttons.



Audio Setting: While in the Play mode, select this option and enter the desired audio setting (L-Mono, R-Mono, Stereo, Mix Mono) using the Navigation (▲, ▼) buttons followed by the ENTER button. You can also change the setting using the MTS AUDIO button.



PBC: Press the Navigation (▼) button to turn ON or OFF the PBC option. See next page for details. (For VCD only.)



Repeat: Select this option and select the desired Repeat setting (Off, Track or All) using the Navigation (\blacktriangle , \blacktriangledown) buttons.



A-B Repeat: Select this option while in the Playback mode. Press the Navigation (\blacktriangledown) button when the desired starting segment is playing to set point A. Press the Navigation (\blacktriangledown) button again when the desired ending segment is playing to set point B; the unit will then automatically start playing this segment repeatedly.

To cancel, press the Navigation (▼) button again.

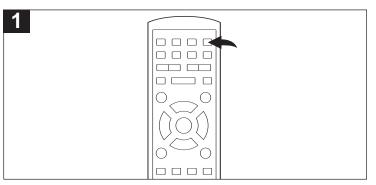


Random: Select this option and turn the Random feature On or Off using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons followed by the ENTER button.

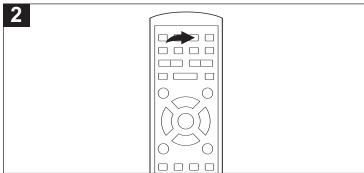


OSD (On-Screen Display) Language: Select this option and select the desired Language (English, French, German or Spanish) the menus will be in using the Navigation (\blacktriangle , \blacktriangledown) buttons followed by the ENTER button.

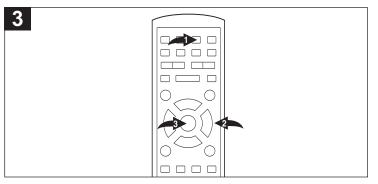
PLAYBACK OF A CD/VCD



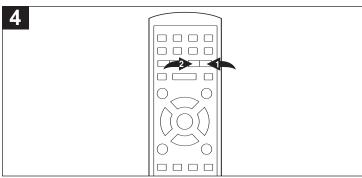
Press the STANDBY ON/OFF button to turn on the unit. The Source mode (TV Tuner, Front AV, Front SV, Rear AV, etc.) screen will appear.



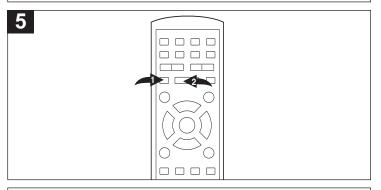
Press the OPEN/CLOSE button to open the disc tray, "OPEN" will appear on the screen. Insert a disc with the label side facing up on the disc tray.



Press the OPEN/CLOSE button **1** to close the disc tray. "LOADING" will appear on the screen. After loading, playback will start immediately.



When playing back, select the track using the SKIP (►)
or (►) 2 button.

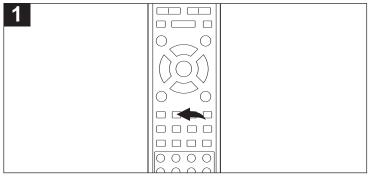


To pause playback, press the PAUSE/STEP button **①**; the PAUSE icon will appear on the screen. Press the PLAY (►) button **②** to continue playback.

For a VCD, press the PAUSE/STEP button **①** to pause the picture. Repeatedly press the PAUSE/STEP button **①** to play the VCD one frame at a time. Press the PLAY (▶) button **②** to continue playing back the VCD.

TURNING PBC (PlayBack Control) ON OR OFF

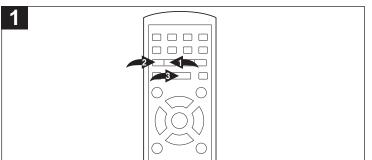
When playing a VCD with PBC function, you can enjoy simple interactive software on your TV.



If the unit is in PBC On mode, press the PBC/TITLE button to de-activate the PBC mode; press the PBC/TITLE button again to activate the PBC mode.

Follow the instructions supplied with the disc as the operating procedure may differ according to the VCD.

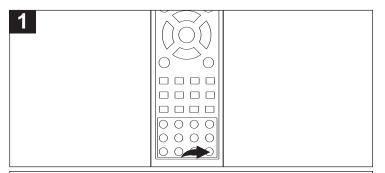
FORWARD ► ► /REVERSE ◀ ◀



During playback, press either the Search $\blacktriangleright \blacktriangleright \bullet$ button or Search $\blacktriangleleft \blacktriangleleft \bullet$ button to move the DVD forward or backward at double (x2) speed to locate a specific section. Repeatedly press these buttons and the speed will increase to x4, x8, x16 and x32.

The disc will move forward or backward at high speed until the PLAY (►) button ⑤ is pressed again; normal playback will resume at that point.

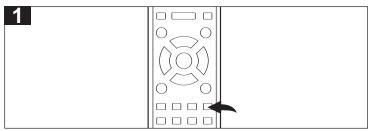
REPEAT A-B PLAY



While in the Playback mode, press the Repeat A-B button to define where you want the section to start. Press the Repeat A-B button again to define where you would like the section to end, the unit will then play the selected area continuously.

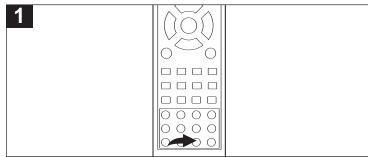
Press the REPEAT A-B button once again to cancel Repeat A-B playback mode.

AUDIO



While in the Play mode, press the MTS AUDIO button and the audio setting will appear at the top of the screen. Repeatedly press the MTS AUDIO button to select the desired audio setting (L-Mono (Left Mono), R-Mono (Right Mono), Stereo, Mix Mono). This is not available on all discs.

REPEAT PLAY



While in the Playback mode, press the REPEAT button to cycle through the Playback modes as follows:

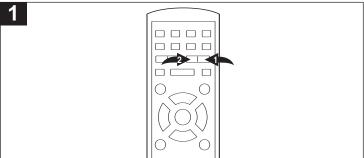
Track: The selected track will be played repeatedly .

All: All the songs on the disc will be repeatedly played.

Off: Repeat function is de-activated.

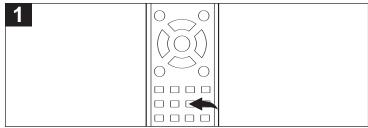
NOTE: For VCDs, if the Repeat function cannot be activated, press the PBC/TITLE button to turn off the PBC and try again.

SELECTING TRACKS



During playback, press the SKIP (N) or (M) button to skip to the next or previous track to be played. You can also use the Tracks option in the Display bar to select a track, as shown on page 50.

INTRO (Scan Function, for CD only)

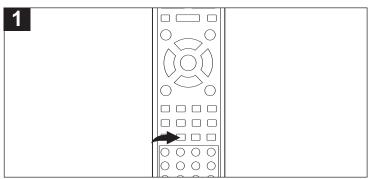


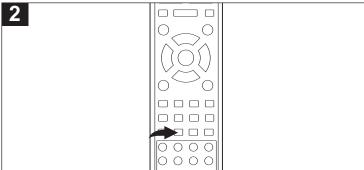
While playing a CD, press the DIGEST button, the unit will start playback of the first 6 seconds of each track. When the last track is played, normal playback of the first track will resume

NOTE: While scanning the CD, you can press the Play (▶) button to resume normal playback of the track.

BOOKMARK (For VCD Only)

For VCD, you can bookmark up to 12 sections for later viewing as follows:





During playback of a VCD disc, when the desired scene appears, press the BOOKMARK button. The Bookmark menu will appear temporarily on the screen which indicates that the first bookmark has been added. Repeat this step to bookmark up to 12 sections.

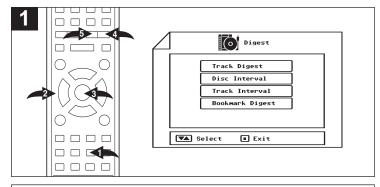
NOTE: After the 12th bookmark is added, if you press the Bookmark button, the first bookmark will be replaced by the new bookmark.

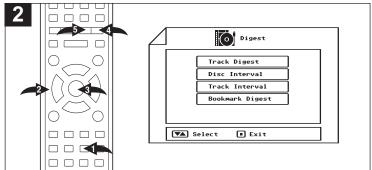
To view the scenes bookmarked in Step 1, see the Bookmark digest section on the next page.

NOTE: You must bookmark the scenes and view the bookmarked scenes during Playback mode; if you stop playback, all the bookmarks will be erased.

DIGEST (For VCD Only)

The Digest function allows the user to view the VCD digests according to four options: Track Digest, Disc Interval, Track Interval and Bookmark Digest.





TRACK DIGEST:

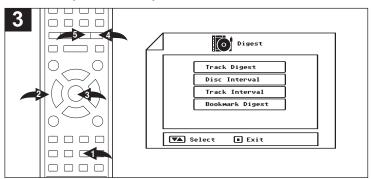
During playback of a VCD, and with PBC off (see page 51), press the Digest button \bullet ; the Digest menu will appear (see above). Select Track Digest using the Navigation (\blacktriangle , \blacktriangledown) buttons 2, then press the ENTER button 3; the Track Digest screen will appear. Use the Navigation (\blacktriangleleft , \blacktriangleright , \clubsuit , \blacktriangledown) buttons 2 to highlight the desired track, then press the ENTER button 3 to start playback of the track. If there are more than six tracks, press the Skip (M) button 3 to view the higher-numbered Track Digest screens. To view the lower-numbered Track Digest screens, press the Skip (M) button 3. You can also highlight the (4) icon and then press the ENTER button 3 to resume playback OR highlight the (4) icon and then press the ENTER button 3 to return to the Digest menu.

NOTE: The number of Track Digest screens depends on the total number of Tracks on the disc.

DISC INTERVAL:

time of the disc.

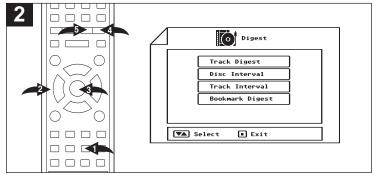
DIGEST (continued)



TRACK INTERVAL:

While playing a desired track, press the Digest button lacktriangle; the Digest menu will appear. Select Track Interval using the Navigation (lacktriangle, lacktriangle) buttons lacktriangle, then press the ENTER button lacktriangle; the Interval screens will appear. For Track Interval, the playback track will be divided by 10-minute intervals. You can use the Navigation ($\{ a, b, b, b, b \}$) buttons lacktriangle to highlight the desired starting time screen, then press the ENTER button lacktriangle to start playback of the Interval. Press the Skip (lacktriangle) button lacket or skip to the next/previous page (if it is available) to view the other Interval screens. You can also highlight the ($\{ a, b, b \}$) icon and then press the ENTER button lacket to resume playback OR highlight the ($\{ a, b, b \}$) icon and then press the ENTER button $\{ a, b, b \}$ to return to the Digest menu.

NOTE: The Interval screens depends on the total playback time of the track.



BOOKMARK DIGEST:

NOTE: The number of Bookmark Digest screens depends on the number of Bookmarks which you marked (up to 12).

VCD ONLY FUNCTIONS

PAUSE/STEP

Use this feature to pause and/or step frame by frame.

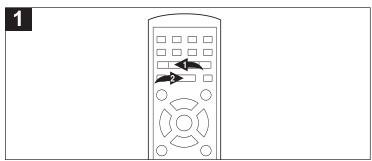
Press the PAUSE/STEP button **1** once to pause the picture.

Repeatedly press the PAUSE/STEP button **1** to play the VCD one frame at a time.

Press the PLAY (▶) button ② to resume normal playback.

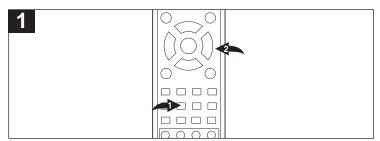
SLOW/F

Use this feature to move the VCD in slow motion.



Pause the unit as shown in the previous step. Repeatedly press the Search ▶▶ ● button to move the VCD forward in slow motion speeds of 1/2, 1/4, 1/8 or 1/16 and resume normal playback. During slow motion playback, the sound will be muted. The player will move forward in slow motion until the PLAY (▶) button ❷ is pressed; normal playback will resume at that point.

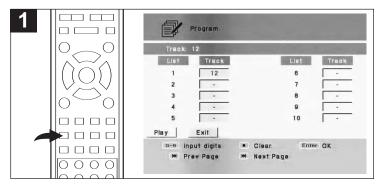
ZOOM

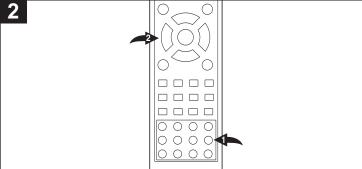


Press the ZOOM button \bullet once during Normal, Slow or Pause playback modes, and the unit will zoom x2. Press two or three times and the unit will zoom x3/x4. Press the ZOOM button \bullet a fourth time and the unit will zoom out x1/2. Press a fifth or sixth time to zoom out x1/3 or x1/4. While Zoomed In, use the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons ② to move the image on the TV screen. Press the ZOOM button \bullet once more to cancel. This is not available on all discs.

PROGRAMMED PLAYBACK

The unit has a 20 track programmable memory that allows you to program up to 20 tracks on any disc for playback in any desired order. You may program 20 different tracks or you may also program certain tracks to play more than once. To perform programmed playback, proceed as follows:

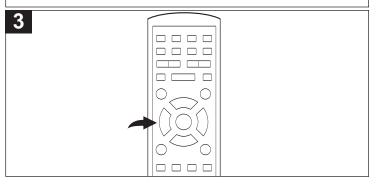


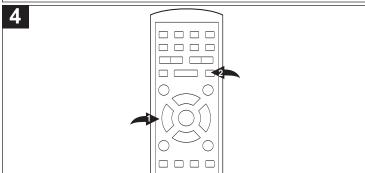


While in the Playback mode, press the PROGRAM button; the Program screen will appear.

Enter the desired Track number of the first program using the Number buttons \bullet , then press the Navigation (\blacktriangledown) button \bullet to move to the next program number.

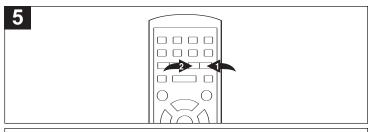
NOTE: It is not possible to enter a track number higher than the disc has recorded on it.

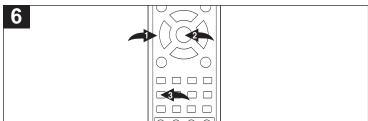




To change a Track, select the desired track to change using the Navigation (\blacktriangle , \blacktriangledown) buttons, then enter the new Track.

To delete the last programmed track, use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons \bullet to highlight the last programmed track number. Press the STOP \blacksquare button \bullet to delete it.





To program more than 10 tracks, after entering the tenth program track number, press the Skip (►) button • then continuously enter the track numbers as described in Step 2 (up to 20 tracks). Press the Skip (►) button • to return to programs 1 through 10.

To start Program playback, scroll to PLAY using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown, \blacktriangledown)$ buttons ①, then press the ENTER button ②; the Program menu screen will disappear. To cancel Program playback and clear the program, press the Program button ③; the Program menu screen will appear. Select STOP using the Navigation $(\blacktriangleleft, \blacktriangleright)$ button ①. Then press the ENTER button ② to cancel and clear the Program playback. To exit the Program menu screen, scroll to EXIT using the Navigation (\blacktriangledown) button ①; then press the ENTER button ②. The Program menu screen will disappear and normal playback of the VCD disc will resume.

MPEG 4 BASIC OPERATION

DISPLAY BUTTON (MPEG 4 MODE):

While playing a disc, press the DISPLAY button to view the control options. Press the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons to select the desired icon, then press the ENTER button to select it. Once selected, press the Navigation $(\blacktriangle, \blacktriangledown)$ buttons or the Number buttons to change the option, then the ENTER button, if required, to confirm the change. When finished, press the DISPLAY button again to remove the control options from the TV screen.

















Tracks: The first number is the current track and the second number is the total tracks. Select this option and enter the desired track number using the Number buttons or Navigation (\blacktriangle , \blacktriangledown) buttons; the selected track will then start playing automatically.



Elapsed Time: The track's elapsed time will appear. Press the ENTER button to select, enter the desired time to start playback using the Number buttons, then press the ENTER button; the disc will start playing at the selected time. Press the Navigation (▼) button once to view the remaining time of the track, press again to view the track's elapsed time again.



Audio Setting: Select this option and enter the desired audio setting using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons (if available on the MPEG 4 disc). You can also change the setting using the MTS AUDIO button.



Subtitle: Select this option and select the desired Subtitle Language (if available on the MPEG 4 disc) using the Navigation (▲, ▼) buttons followed by the ENTER button.



A-B Repeat: Press the Navigation (\blacktriangledown) button when the desired starting segment is playing to set point A. Press the Navigation (\blacktriangledown) button again when the desired ending segment is playing to set point B; the unit will then automatically start playing this segment repeatedly. To cancel, press the Navigation (\blacktriangledown) button again.



Play Mode: Select this option and select the desired Play Mode using the Navigation (▲,▼) buttons followed by the ENTER button:

Folder: When the last file/track in the folder is finished playing, playback stops.

Single: Only the selected file is played. Playback will be stopped after the selected file/track is finished playing.

Repeat One: The selected file/track will be played repeatedly.

Repeat Folder: All the files/tracks in the folder, excluding sub-folders, will be repeatedly played.

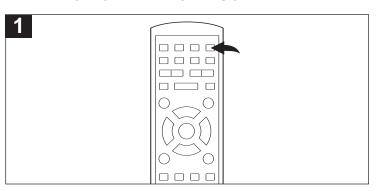
Random: The files in the selected folder are played back in random order. The playback will be non-stop.



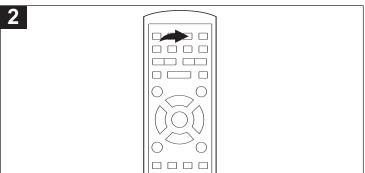
OSD (On-Screen Display) Language: Select this option and select the desired Language (English, French, German or Spanish) the menus will be in using the Navigation (\blacktriangle , \blacktriangledown) buttons followed by pressing the ENTER button.

MPEG 4 BASIC OPERATION (CONTINUED)

PLAYBACK OF A MPEG4 DISC

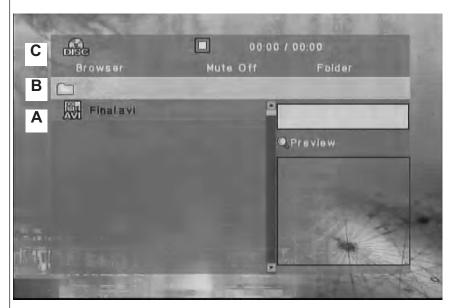


Press the STANDBY ON/OFF button to turn on the unit. The Source mode (TV Tuner, Front AV, Front SV, Rear AV, etc.) screen will appear.



Press the OPEN/CLOSE button to open the disc tray, "OPEN" will appear on the screen. Insert an MPEG 4 disc with the label side facing up on the disc tray.

3



Area (A)-File Navigation Window-will list the folders and files on the disc in tree structure. Move the cursor with the Navigation (▲,▼) buttons. When a file is being played, the background of the file will be marked with yellow color.

To select a file for playback, move the purple cursor to highlight the target file and then press the ENTER button.

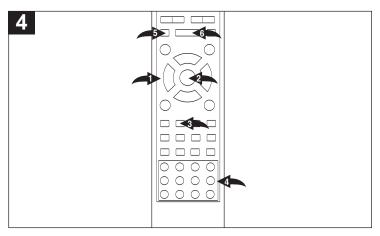
To explore a folder, move the purple cursor to highlight the target folder name and then press the ENTER button. The files or sub-folders inside will be listed.

To close a folder, move the purple cursor to highlight the opened folder name and then press the ENTER button. The opened folder will close.

Area (B)—File Path Window—shows the path of the playing file.

Area (C)–Play Status Window–shows the playing status: the play time information, play/stop status, etc.

Press the OPEN/CLOSE button to close the disc tray. "LOADING" will appear on the screen. After loading, the screen above will appear.



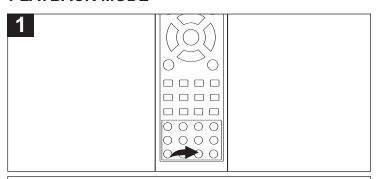
Select the desired folder using the Navigation $(\blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button \bullet ; the files will then appear.

Select a file using the Navigation (\triangle , \blacktriangledown) buttons \odot , then press the ENTER button \odot ; the file will then play. You can also press the PBC/TITLE button \odot , then select the file number using the Number buttons \odot (you will need to enter 4 digits for the file number; i.e., for the first file, enter "0001"), then press the ENTER button \odot twice.

To pause playback, press the PAUSE/STEP button **⑤**; the Pause indicator will appear on the top on the screen. Press the PLAY (▶) button **⑥** to resume playback.

MPEG 4 BASIC OPERATION (CONTINUED)

PLAYBACK MODE



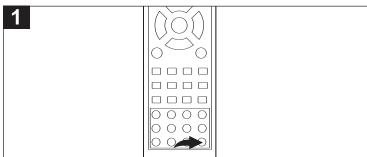
While in the Playback mode, press the REPEAT button once; the display icons will appear on-screen. Repeatedly press the REPEAT button to cycle through the Playback modes as follows: **Random:** The files in the selected folder are played back in random order. The playback will be non-stop.

Single: Only the selected file is played. Playback will be stopped after the selected song is finished playing.

Repeat One: The selected song will be played repeatedly . **Repeat Folder:** All the songs in the folder, excluding sub-folders, will be repeatedly played.

Folder: When last song in the folder is finished playing, playback stops.

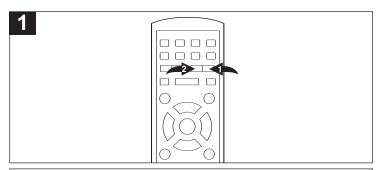
A-B REPEAT PLAYBACK



While in the Playback mode, press the Repeat A-B button when the desired starting segment is playing to set point A. Press the Repeat A-B button again when the desired ending segment is playing to set point B; the unit will then automatically start playing this segment repeatedly.

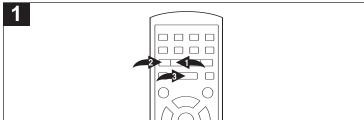
To cancel, press the Repeat A-B button again.

SELECTING FOLDERS/FILES



During playback, press the SKIP (\blacktriangleright) \bullet or (\blacktriangleleft) \bullet button to skip to the next or previous file to be played.

SEARCH



During playback, press either the Search ▶▶ button ① or Search ◀◀ button ② to move the file forward or backward at double (x2) speed to locate a specific section. Repeatedly press these buttons and the speed will increase to x4, x8, x16, x32 and resume normal playback. The disc will move forward or backward at high speed until the PLAY (▶) button ③ is pressed; normal playback will resume at that point.

MPEG 4 BASIC OPERATION (CONTINUED)

PAUSE/STEP

Use this feature to pause and/or step frame by frame.

1

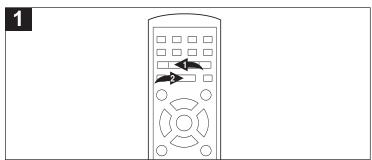
Press the PAUSE/STEP button • once to pause the picture.

Repeatedly press the PAUSE/STEP button **1** to play the MPEG 4 one frame at a time.

Press the PLAY (▶) button ② to resume normal playback.

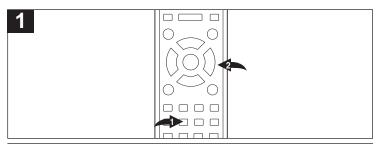
SLOW/F

Use this feature to move the MPEG 4 in slow motion.



Pause the unit as shown in the previous step. Repeatedly press the Search ▶▶ ● button to move the file/track forward in slow motion speeds of 1/2, 1/4, 1/8, 1/16 and resume normal playback. During slow motion playback, the sound will be muted. The player will move forward in slow motion until the PLAY (▶) button ❷ is pressed; normal playback will resume at that point.

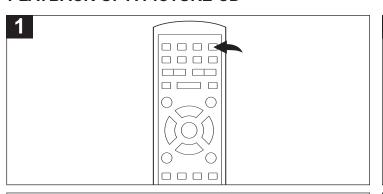
ZOOM



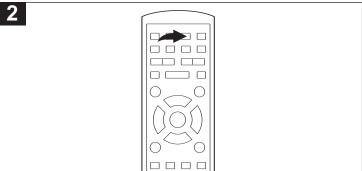
Press the ZOOM button \bullet once during Normal, Slow or Pause playback modes, and the unit will zoom x2. Press two or three times and the unit will zoom x3/x4. Press the ZOOM button \bullet a fourth time and the unit will zoom out x1/2. Press a fifth or sixth time to zoom out x1/3 or x1/4. While in the Zoom In mode, use the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons \bullet to move the image on the TV screen. Press the ZOOM button \bullet once more to cancel. This is not available on all discs.

PICTURE CD BASIC OPERATION

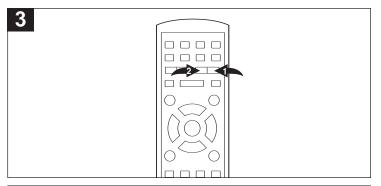
PLAYBACK OF A PICTURE CD



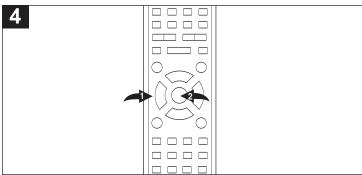
Press the STANDBY ON/OFF button to turn on the unit. The Source mode (TV Tuner, Front AV, Front SV, Rear AV, etc.) screen will appear.



Press the OPEN/CLOSE button to open the disc tray, "OPEN" will appear on the screen. Insert a picture disc with the label side facing up on the disc tray. Press the OPEN/CLOSE button to close the disc tray. "LOADING" will appear on the screen.

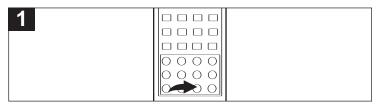


After loading, playback will start automatically. Press the Skip (\bowtie) or (\bowtie) obutton to skip through the pictures. The unit will playback all the pictures on the disc, then the Pictures Index menu will appear on the TV screen.



Use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons \bullet to select the desired picture (an arrow will point to the selected picture) and press the ENTER button \bullet to playback the desired picture again. To view the next or previous page of the Pictures Index menu, select ">>" icon "<<" icon at the right bottom side of the screen using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons \bullet , then press the ENTER button \bullet .

PLAYBACK MODE



While in the Playback mode, repeatedly press the REPEAT button to cycle through the Playback modes as follows:

Random: The pictures are played in random order.

Single: Only plays the picture which you selected in the Pictures Index menu; then the Pictures Index menu will appear again.

Repeat One: The picture which you select on the selected in the Pictures Index menu will play continuously. (NOTE: To return to the Pictures Index menu, press the Stop () button.)

Repeat Folder: All the pictures will playback continuously. (NOTE: To return to the Pictures Index menu, press the Stop (button.)

Folder: All the pictures will playback once; then it will return to the Pictures Index menu.

RECORDING

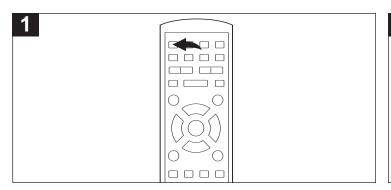
INSERTING A BLANK DVD-R, DVD-RW, DVD+R, DVD+RW:

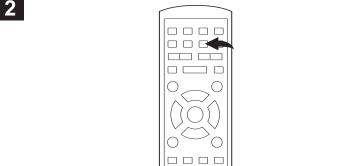
After inserting a blank recordable DVD, the DVD recorder will automatically auto initialize the DVD to make it compatible with this unit. Auto Initializing will appear on the screen with a status bar indicating the status.

NOTE: If the Blank DVD-R, DVD-RW, DVD+R or DVD+RW disc was already inserted into this unit previously, then the unit will not Auto Initialize the disc. After loading the disc, you can record onto the disc as described below.

MANUALLY RECORDING:

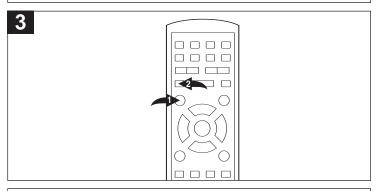
After the DVD is inserted (see above), manually record a program as follows:

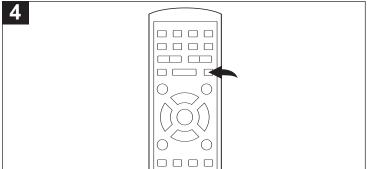




With the unit on and a recordable DVD inserted, press the SOURCE button repeatedly to select the desired recording source. To set up the recording options, see page 24.

To start recording, press the RECORD button once; "RECORDING" will appear on the screen, along with the Recording message box indicating the elapsed time, channel, recording quality and remaining recording time.





To remove the Recording message box, press the DISPLAY button **①**. Press the DISPLAY button **①** again to show the recording message box.

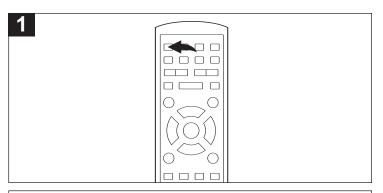
To pause recording, press the PAUSE/STEP button ② once. To resume recording, press the PAUSE/STEP button ② again.

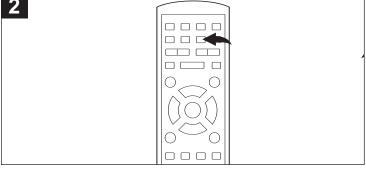
To stop recording, press the STOP (**II**) button; the Stop Recording message box will appear on the screen and recording will stop after a few seconds.

- The length and quality of the recording are determined by the disc capacity and the recording quality set on page 24.
- Make sure to set the Recording parameters (see page 24) to set the Recording Quality, Chapter Marks and Source Default.
- While recording, no buttons will function, except the RECORD, STOP (III), DISPLAY and PAUSE/STEP buttons.
- While recording, if there is no signal or the signal is unstable, the unit will pause recording until a stable signal is received from the recording source.
- While recording, if "Signal is Copy Protected" appears on the screen, the unit will pause recording. Because the input source video is copy protected, the recording will not be allowed. Press the STOP () button to stop the recording.

OTR (ONE TOUCH RECORDING):

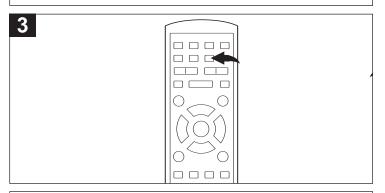
After the Recordable/Rewriteable DVD is inserted (see previous page), set the unit to record for a set amount of time as follows:

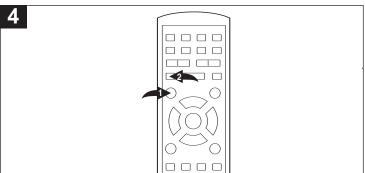




With the unit on and a recordable DVD inserted, press the SOURCE button repeatedly to select the desired recording source. To set up the recording options, see page 24.

To start recording, press the RECORD button once; "RECORDING" will appear on the screen, along with the Recording message box indicating the elapsed time, channel, recording quality and remaining recording time.

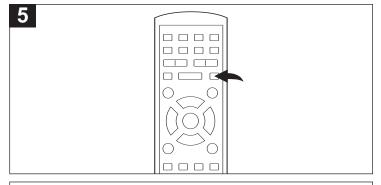




Press the RECORD button once more to activate One Touch Recording (OTR) and the unit will record for 30 minutes and stop. Repeatedly press the RECORD button to increase recording time in 30 minute intervals, up to the time allowed on the DVD.

To remove the Recording message box, press the DISPLAY button **1**. Press the DISPLAY button **1** again to show the recording message box.

To pause recording, press the PAUSE/STEP button ② once. To resume recording, press the PAUSE/STEP button ② again.

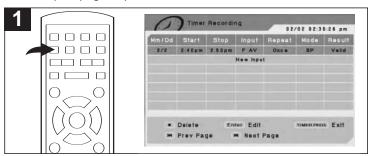


To stop recording before it reaches the recording stop (OTR setting time), press the STOP (**I**) button; the Stop Recording message box will appear on the screen and recording will stop after a few seconds.

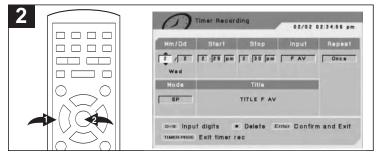
- The length and quality of the recording are determined by the disc capacity and the recording quality set on page 24.
- Make sure to set the Recording parameters (see page 24) to set the Recording Quality, Chapter Marks and Source Default.
- During Recording, no buttons will function, except the RECORD, STOP (■), DISPLAY and PAUSE/STEP buttons.

TIMER RECORDING

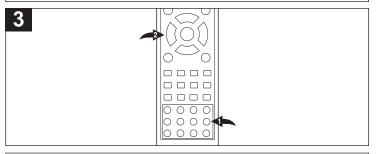
You can set this unit using the Timer Recording Program function in advance as shown below. The clock must be set before using this function (see page 28).



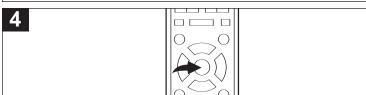
Press the TIMER PROGRAM button; the Timer Recording box will appear on the screen and "P01 NEW" will appear in the display.



Scroll to New Input using the Navigation (\triangle , \blacktriangledown) buttons 1 then press the ENTER button 2 to enter a new timer recording; the Timer Recording setting box will appear on the screen. If no timer recordings have been set, just press the ENTER button 2.

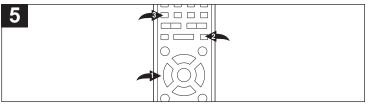


Enter the desired starting month using the Number buttons \bullet or the Navigation (\blacktriangle , \blacktriangledown) buttons \bullet , then press the Navigation (\blacktriangleright) button \bullet to tab to the next field. Repeat step 3 to set the desired starting day, start time, stop time, input source/channel number, repeat mode (how often do you want this recording to take place: Once, Weekly, Mon-Fri or Daily) and recording quality.



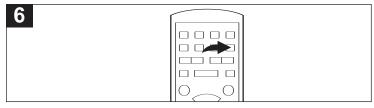
When done setting, press the ENTER button. **NOTES:**

- To enter the start time and stop time (in the previous Step), if you set the Time system (see page 28) for 12-hour, then you need to enter the hour (from "0" to "12"), minutes (from "0"-"60") and select AM or PM. If you set the Time system for 24-hour, then you need to enter the hour (from "0"-"24") and minutes (from "0" to "60").
- If you select the "CH" (TV Tuner) as the recording input source, then, please make sure that you have selected the corresponding channel to record.



If the entry is invalid or incorrect, an error message box will appear on the screen and ERROR will appear in the display. In this case, the incorrect settings will be highlighted, so Re-input correctly.

To delete the Timer Recording program, use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons ① to select the program that you want to delete, then press the Stop (\blacksquare) button ②. Select OK (to delete the program) or CANCEL using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons ① then press the ENTER button. If you select OK, then the selected program will be deleted. When done, press the TIMER PROGRAM button ③ to exit the timer recording screen.

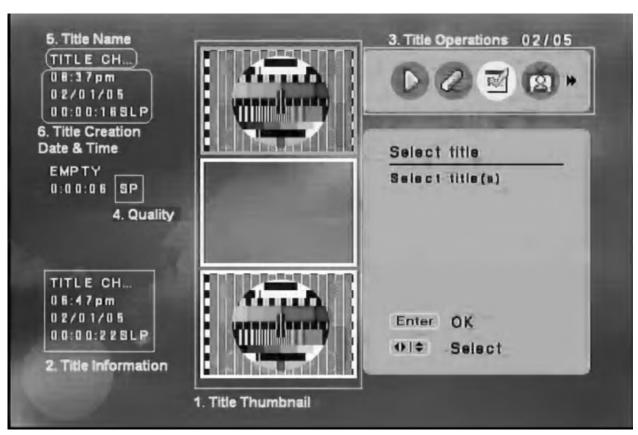


Insert a DVD-R, DVD-RW, DVD+R or DVD+RW disc, with enough space to record the selected timer recording, into the disc tray, then press the TIMER button on the remote control; the unit will switch to Timer Recording mode. The number of Timer programs and the Timer indicator will appear in the display. When the actual time reaches the Program Timer Recording time, the unit will record the program. If you want to cancel the Timer Recording function, press the TIMER button once, the Timer indicator will disappear from the display and the unit will turn on.

- Once you press the TIMER button to activate the Timer recording, the unit will switch to Standby mode automatically. No buttons (on the unit or the remote) will function. To cancel the Timer Recording function, press the TIMER button (on the remote); the Timer indicator will disappear from the display and all the buttons (on the unit and the remote) will function again.
- Make sure you press the TIMER button to activate the Timer Recording function. Otherwise, although you have programmed the Timer Recording program (as described in Steps 1-5 above), when the start time is reached, the recording will not be started automatically.
- For the Timer Recording function, when the unit starts recording, if you want to stop the Timer Recording, press the TIMER button once, it will change to normal recording mode. To stop the recording, press the Stop (■) button; then select OK (to stop the recording) or CANCEL using the Navigation (◄,▶) button then press the ENTER button. If you select CANCEL, the unit will continuously record the program. When it is finished, it will stop. If you have set another Timer Recording program(s), press the TIMER button once to activate the Timer Recording function again.

MAIN TITLE SCREEN:

When a recorded disc is inserted, press the PLAY (►) button and the screen below will appear. At this screen, you can perform/view the functions as described below:



- **1. Title Thumbnail:** Shows the title index pages.
- **2. Title Information:** Shows the title name, time and date recorded, total playing time and recording quality.
- **3. Title Operations:** Shows the options available, including Play Title, Erase Title, Select Titles, Label Title, Chapter Edit and Index Picture. These operations are described on the following page.
- **4. Quality:** Shows the recording quality of the title.
- **5. Title Name:** Shows the name of the title, which can be changed (see the next page).
- **6. Title Creation Date and Time:** Shows the time and date, recorded total playing time and recording quality.

TITLE OPERATIONS:

At the main title screen from the previous page, see below for descriptions/operations of the top right Title Operations. Select the desired Title to operate using the Navigation (\blacktriangle , \blacktriangledown) button; the selected Title will be highlighted. Then, select the operation as described below:



Play Title: When a title is selected, chose the Play Title icon using the Navigation (◀,▶) buttons, then press the ENTER button to start playback. Press the DVD MENU button to return to the Main Title screen.

Erase Title(s): When a desired title is selected, choose the Erase Title icon using the Navigation $(\blacktriangleleft, \blacktriangleright)$ button, then press the ENTER button. Select one of the following options using the Navigation $(\blacktriangle, \blacktriangledown)$



button, then press the ENTER button to start the operation: **CANCEL:** Cancel Erase Title operation and exit the Erase Title(s) menu.

ERASE SELECTED TITLE(S): The selected title(s) will be erased.

NOTE: You can select the titles and erase them all at once. See Select Title below.

ERASE ALL TITLES: All the titles on the disc will be erased.



Select Title: When a title is selected, chose the Select Title icon using the Navigation (◀,▶) buttons, then press the ENTER button to select it. An arrow will be added at the left of the Title Thumbnail to indicate the title is selected. Press the ENTER button again to cancel selecting the title.



Label Title: When a title is selected, chose the Label Title icon using the Navigation (◀,▶) buttons, then press the ENTER button to select it; the Label Title screen will appear. Select the icons on the Label Title screen, then press the ENTER button to edit the title name. (Please refer to the usage instruction at the bottom of the menu to modify the title, as well.) When finished, select the OK icon and press the ENTER button to confirm the change of the title name OR select CANCEL to cancel editing the title name. Then, after several seconds, the unit will return to the Main Title screen.



Chapter Edit: When a title is selected, select the Chapter Edit icon using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the ENTER button to select it; the Chapter Edit screen will appear. Select the desired Chapter(s) to play/edit using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons to highlight the Chapter, then press the ENTER button to select the chapter. (Press the ENTER button again to cancel the Chapter selection.) **NOTE:** If you do not select the Chapter(s), some options described below will not be able to be selected. Use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangle, \blacktriangledown)$ buttons to highlight and press the ENTER button to select one of the following options:

PLAY: Select to play the selected Chapter(s). Press the Stop (III) button on the remote to return to the Chapter Edit screen.

ADD MARK: Select Add Mark; the selected chapter(s) will playback. Simply press the ENTER button to insert a new Chapter. When finished, press the Stop () button on the remote to return to the Chapter Edit screen

DEL MARK: Scroll to the desired chapter using the Navigation (◀,▶,▲,▼) buttons and press the ENTER button to select it, then press the ENTER button to delete it.

NOTE: The first chapter cannot be deleted.

HIDE: Scroll to the desired chapter using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons and press the ENTER button to hide it. This will hide the chapter as if it did not exist (the chapter will be hidden during playback of the disc).

When finished Chapter editing, use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons to highlight the EXIT icon and press the ENTER button. Then, after several seconds, the unit will return to the Main Title screen.



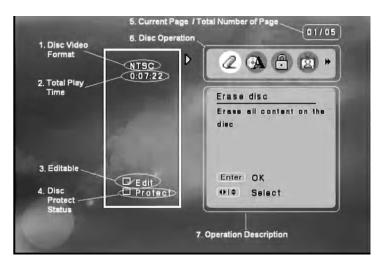
Index Picture: This will allow you to change the picture that appears on the title screen for the selected title. When a title is selected, chose the Index Picture icon using the Navigation (◀,▶) buttons, then press the ENTER button to select it; the title will automatically start playing. When the desired area appears you would like to index, press the ENTER button; this will now be the new title picture.



Divide Title: This will allow you to divide one Title into two sections. When a title is selected, choose the Divide Title icon using the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons, then press the ENTER button to select it; the Title will automatically start playing. When the desired point appears where you would like to begin the second section, press the RECORD button; this will now be the new divided title starting point. Then, after several seconds, the unit will return to the Main Title screen.

SECONDARY TITLE SCREEN:

With a recorded disc inserted, press the PLAY (▶) button, the Main Title screen will appear. Press the Navigation (▲) button and the screen below will appear. At this screen, you can perform the functions described below:



- Disc Video Format: Shows the format of the DVD. All subsequent recordings must match this format, otherwise the video cannot be recorded onto the same DVD.
- Total Play Time: Shows the total playing time of the inserted disc.
- 3. Editable: Shows whether the disc is editable.
- Protect: Shows whether the disc is protected. You can protect the disc as described below.
- **5. Current Title Page:** Shows the current page number. In this case, there are five total pages and you are viewing the first one.
- 6. Disc Operation: Shows the options available, including Erase Disc, Disc Name, Protect/Unprotect Disc, Finalize Disc or Make Compatible. See below for details:



Erase Disc (For DVD-RW/DVD+RW disc only): Choose the Erase Disc icon using the Navigation (◄,►) buttons then press the ENTER button to select the Erase Disc icon. Select OK (erase the disc) or Cancel (do NOT erase the disc) using the Navigation (◄,►) buttons then press the ENTER button. If you select OK, the unit will erase the disk.

IMPORTANT! If you select OK, all the recorded scenes/titles on the disc will be erased.



Disc Name: This option is to add/edit the name of the recorded disc. Choose the Disc Name icon using the Navigation (◀,▶) buttons, then press the ENTER button to select it; the Label Title and the keyboard screen will appear. Select the icons on the Label Title screen then press the ENTER button to edit the Title Name. (Please refer to the usage instructions on the bottom of the menu screen to modify the Disc Name, as well.) When finished, select the OK icon and press the ENTER button to confirm the change of the Disc Name OR select CANCEL to cancel editing the Disc name. Then, after several seconds, the unit will return to the Main Title screen.



Protect/Unprotect Disc: Choose the Protect Disc icon using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons then press the ENTER button. Select OK (protect the disc) or CANCEL (do NOT protect the disc) using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons then press the ENTER button. If you select OK, then, after several seconds, the unit will return to the Main Title screen. Once the disc is protected, you cannot edit the disc or record on the disc. For DVD+/-RW discs, you cannot erase the disc as well. If you want to edit, erase or record the disc again, then you need to Unprotect the disc. With a protected disc loaded, enter the Second Title Screen as described previously, choose the Unprotect Disc icon using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons then press the ENTER button. Select OK (to unprotect the disc) or CANCEL (cancel the operation) using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons then press the ENTER button. If you select OK, then, after several seconds, the unit will return to the Main Title screen. Once the disc is unprotected, you can edit, record or erase the disc again.



Finalize Disc (For DVD-R, DVD+R, DVD-RW discs only) or Unfinalize Disc (For DVD-RW discs only): For the DVD+/-Rs, they must be FINALIZED before being used in a standard DVD player. Unlike DVD+/-RWs, DVD+/-Rs can't be moved back and forth between the recorder and standard DVD players. You must finish all recordings on the disc and finalize the disc before it will be usable on any other player. However, for DVD-RWs, you also need to finalize the disc before it will be usable on any other player. But for DVD-RWs, you can unfinalize the discs and edit/record/erase the disc again. To unfinalize the disc, please see below.

To Finalize the Discs: Choose the Finalize Disc icon using the Navigation (◀,▶) buttons then press the ENTER button. Select OK (to finalize the disc) or CANCEL (to NOT finalize the disc) using the Navigation (◀,▶) buttons follow by press the ENTER button. If you select OK, then, after several seconds, the unit will return to the Main Title screen. **NOTE:** For DVD+/-R, once the disc is finalized, no further recordings or edits can be made on the disc. For DVD-RW, if the disc is finalized and you would like to record/edit the disc, follow the Unfinalize Disc procedure below.

Unfinalize Disc (For DVD-RW discs only): With a finalized DVD-RW disc loaded, enter the Second Title Screen as described above and this option will be available instead of the option "Finalize". Choose the Unfinalize Disc icon using the Navigation (\blacktriangleleft , \blacktriangleright) buttons then press the ENTER button. Select OK (to unfinalize the disc) or CANCEL (to cancel unfinalizing the disc) using the Navigation (\blacktriangleleft , \blacktriangleright) buttons then press the ENTER button. If select OK, then, after several seconds, the unit will return to the Main Title screen. After unfinalizing the DVD-RW disc, then the disc will be editable/recordable again.

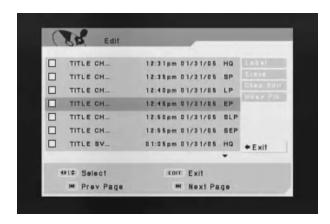


Make Compatible (For DVD+/-RW discs only): This operation is for making the discs compatible with standard DVD players. Before a DVD+/-RW is made compatible, all edits will only be visible when the disc is used in this DVD Recorder. A standard DVD player may not be able to play the DVD+/-RW before it is made compatible. Also, after you make DVD+/-RWs compatible, if you edit or continue to record on the disc, then you need to make compatible again.

To Make Compatible (for DVD+/-RWs), when you are on the Second Title Screen as described above, choose the Make Compatible icon using the Navigation (\blacktriangleleft , \blacktriangleright) buttons then press the ENTER button. Select OK (to make the disc compatible) or CANCEL using the Navigation (\blacktriangleleft , \blacktriangleright) buttons then press the ENTER button. If you select OK, then, after several seconds, the unit will return to the Main Title screen.

DISC EDIT

You can access the Disc Edit menu by pressing the SETUP button (on the remote), then using the Navigation (◄,►) buttons to select Disc Edit then press the ENTER button OR by simply pressing the DISC EDIT button. The menu below will appear. The list of functions that can be performed from this page are shown below the picture as follows:



Label Title: Select a Title Name using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons then press the ENTER button; a yellow box will appear in the check-box. Chose the Label icon using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons then press the ENTER button to select it; the Label Title screen will appear. Select the icons on the Label Title screen then press the ENTER button to edit the title name. (Please refer to the usage instruction at the bottom of the menu to modify the title as well.) When finished, select the OK icon using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangle, \blacktriangledown)$ buttons then press the ENTER button to confirm the change of the title name OR select CANCEL to cancel editing the title name. Then, the Disc Edit menu will appear again.

Erase Title(s): Select a Title Name using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons then press the ENTER button; a yellow box will appear in the check-box. Repeat this step to select the titles which you want to erase. Then, choose the Erase icon using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons then press the ENTER button to select it. Select OK (to erase the title or titles) or CANCEL using the Navigation $(\blacktriangleleft, \blacktriangleright)$ button then press the ENTER button. If you select OK, then, after several seconds, the Disc Edit menu will appear again.

Chapter Edit: Select a Title using the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons then press the ENTER button; a yellow box will appear in the check-box. Choose the Chap(ter) Edit icon using the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons then press the ENTER button to select it; the Chapter Edit screen will appear. Select the desired Chapter(s) to play/edit using the Navigation \blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons to highlight the Chapter then press the ENTER button to select the Chapter. (Press the ENTER button again to cancel the Chapter selection.) **NOTE:** If you do not select any Chapter(s), some options described below will not be available. Use the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons to highlight and press the ENTER button to select one of the following options:

TITLE: Select to return to the Title Edit menu.

PLAY: Select to play the selected Chapter(s). Press the Stop (III) button on the remote to return to the Chapter Edit screen.

ADD MARK: Select Add Mark, then the selected Chapter(s) will playback. Simply press the ENTER button to insert a new chapter. When finished, press the Stop (button on the remote to return to the Chapter Edit screen.

DEL MARK: Scroll to the desired chapter using the Navigation (◀,▶,▲,▼) buttons and press the ENTER button to select it, then press the ENTER button to delete it. **NOTE:** The first chapter can not be deleted.

HIDE: Scroll to the desired chapter using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons and press the ENTER button to hide it. This will hide the chapter as if it did not exist (the chapter will be hidden during playback of the disc).

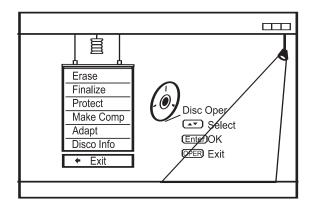
When you are finished Chapter Editing, use the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown)$ buttons to highlight the EXIT icon and press the ENTER button. After several seconds, the unit will exit the Settings menu.

Index Picture: This will allow you to change the picture that appears on the title screen for the selected title. Select a Title Name using the Navigation $(\blacktriangleleft, \blacktriangleright, \blacktriangle, \blacktriangledown, \blacktriangledown)$ buttons and press the ENTER button; a yellow box will appear in the check-box. When a title is selected, chose the Index Picture icon using the Navigation $(\blacktriangleleft, \blacktriangleright)$ buttons, then press the ENTER button to select it; the title will automatically start playing. When the desired area appears you would like to index, press the ENTER button; this will now be the new title picture.

NOTE: While in the Disc Edit menu, use the Navigation (◀,▶,♠,▼) buttons to navigate to the Title, then press the ENTER button; a yellow box will appear in the check-box which indicates the Title has been selected. To deselect the Title, press the ENTER button again, the check-box will become blank which indicates the Title is not selected.

DISC OPERATION MENU:

When a recordable disc is inserted, press the SETUP button, then select the DISC OPER(ATION) icon and press the ENTER button. The list of functions that can be performed from this page are shown below:



Erase Disc (DVD-RW/DVD+RW only): Choose the Erase icon using the Navigation (\blacktriangle , \blacktriangledown) buttons then press the ENTER button. Select OK (to erase the disc) or CANCEL using the Navigation (\blacktriangleleft , \blacktriangleright , \blacktriangle , \blacktriangledown) buttons then press the ENTER button. If you select OK, after several seconds, all the Scenes/Titles on the disc will be erased.

Finalize (For DVD+/-R and DVD-RW discs only) or Unfinalize (For DVD-RW discs only): For the DVD+/-Rs, they must be FINALIZED before being used in a standard DVD player. Unlike DVD+/-RWs, DVD+/-Rs cannot be moved back and forth between the recorder and standard DVD players. You must finish all recordings on the disc and finalize the disc before it will be usable on any other player. However, for DVD-RWs, you also need to finalize the disc before it will usable on any other player; but, you can unfinalize the disc and edit/record/erase the disc again. To unfinalize a disc, please see below.

To Finalize the Discs: Choose the Finalize icon using the Navigation (♠,♥) buttons then press the ENTER button. Select OK (to finalize the disc) or CANCEL (to NOT finalize the disc) using the Navigation (♠,▶) buttons then press the ENTER button. If you select OK, then the unit will finalize the disc (this will take several seconds). **NOTE:** For DVD+/-Rs, once the disc is finalized, no further recordings/edits can be made on the disc. For DVD-RWs, if the disc is finalized and you need to record/edit the disc, follow the Unfinalize procedure described below:

Unfinalize (For DVD-RWs only): With a finalized DVD-RW disc inserted, press the Disc Oper(ation) button, the Unfinalize option will be available instead of the option "Finalize". Choose the Unfinalize icon using the Navigation (▲,▼) buttons then press the ENTER button. Select OK (to unfinalize the disc) or CANCEL (to cancel unfinalizing the disc) using the Navigation (◄,►) buttons then press the ENTER button. If you select OK, then the unit will unfinalize the disc (this will take several seconds). After you unfinalize the DVD-RW, then the disc will editable/recordable again.

Make Comp(atible) (for DVD+/-RW discs only): This function makes your edits—such as hidden chapters—compatible with standard DVD players. Use this option before distributing any recordings that you have edited to clients or friends. Before a RW disc is made compatible, all edits will only be visible when the disc is used in this unit. You can use this option multiple times, moving a RW disc back and forth between the DVD Recorder and a standard DVD player. Each time a disc is edited, it must be made compatible again. Choose the Make Compatible icon using the Navigation (◄,▶,▲,▼) buttons then press the ENTER button to select it.

Adapt: For a DVD-RW or DVD+RW disc, where the disc is recorded with some program by another brand DVD recorder, if the disc isn't made compatible or finalized, then you can use the ADAPT function to adapt the disc so the disc can continuously record programs with this unit. Also, you can edit the title and edit the disc. Further, this function will change the DVD+/-RW disc/titles menu format to the format that this unit uses, so, you can edit the disc or continue to record scenes/titles on the disc.

- If the DVD+/-RW disc has already been finalized or made compatible on the previous DVD recorder, then, you cannot ADAPT the disc anymore and you won't be able to select this function inside the DISC OPERATION menu.
- For this unit, the video recording format is DVD+VR. If the DVD+/-RWs that are recorded by another DVD recorder which is using a non-DVD+VR video format, such as DVD-Video, DVD-VR, then the discs will not be able to be adapted.

To Adapt the DVD+/-RW, choose the ADAPT icon using the Navigation (◄,▶,♠,▼) buttons then press the ENTER button to select it. Select OK (to adapt the disc) or CANCEL using the Navigation (◄,▶) buttons then press the ENTER button. If you select OK, then the unit will adapt the disc (this will take several seconds).

Total Titles on Disc

Disc Info: Choose the Disc Info icon using the Navigation (▲,▼) buttons then press the ENTER button; the Disc Info menu will appear (as shown to the right) showing information regarding the disc. Press the ENTER button to close the Disc Info menu and the Disc Operation menu will appear again.

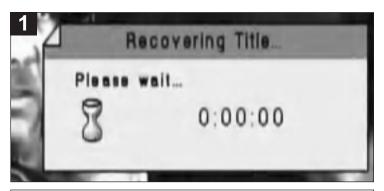


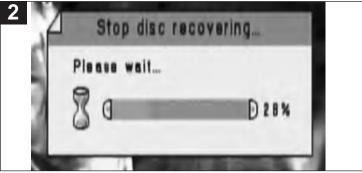
Used Memory on Disc Total Space (Memory) on Disc

Remaining Recording Time (Minutes)

AUTOMATIC RESTORE TECHNOLOGY SYSTEM (A.R.T.S.):

When AC power fails accidentally, this recorder will resume to last operating status as soon as power supply resumes. For example, if the unit is in the Timer mode (waiting for the preset program time), it will restores to Timer mode after the power is lost and then reapply. The Timer programs and the Real Time Clock will be kept for at least two days during the power loss/failure. But if power failure happens longer than two days, the user should check or may need to correct both the Real Time Clock and the Timer programs. In case the power failure happens while Timer recording is taking place, this recorder will first try its best to recover the recorded title before continuing the remaining recording (if program time has not expired) or Timer mode (waiting for next preset program).





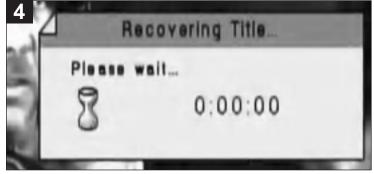
Timer Recording:

When the power failure occurs during the timer recording, the unit will recover automatically and a "Recovering Title" message box will be displayed on the screen.

After the unit has collected all the required information and data, it will start the recovery process.



Once the recovery process has successfully completed, a successful recovery message box will be displayed on the screen. If the power is resumed while the timer program is still in valid stage, the unit will resume to the timer recording program mode and continue recording until the program ends.



Normal Recording:

When the power failure occurs during the normal recording, the unit will recover automatically and the recovery process will be the same as the Timer Recording. However, the only difference is the unit will resume to the normal Stop mode after recovering successfully from the power failure.

TROUBLESHOOTING GUIDE

Check the following before requesting service:

SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
GENERAL		
No power.	AC cord unplugged.	Plug in the AC cord to an AC outlet.
Power on, but unit not functioning	Condensation has formed.	Unplug the unit and wait about one to
properly.		two hours to allow the player to dry.
	Wrong type of CD inserted.	This unit can only play the discs listed
		on page 17.
	Unit needs to be reset.	Press the STANDBY ON/OFF button,
		then unplug the power cord. Wait one
		minute and then plug the unit back in.
	The disc is dirty or inserted incorrectly.	Clean disc and insert label side-up.
	Some features and functions are not	This is normal; try another function.
	available on all discs.	
No picture.	The equipment is not connected properly.	Connect the equipment according to
		the instructions in this manual.
	The INPUT of the TV is not set to receive	Select the appropriate video input
	the DVD signal output.	mode, usually VIDEO or A/V.
	The video cables are not securely	Connect the video cables securely.
	connected.	
	The connected TV's power is off.	Turn the TV on.
No sound.	The equipment is not connected properly.	Connect the equipment according to
		the instructions in this manual.
	The equipment connected with the audio	Select the appropriate audio input
	cable is not set to receive the DVD signal	mode.
	input.	Constant the condition of the constant
	The audio cables are not securely	Connect the audio cables securely.
	connected.	Turn the goodie receives on
The playback pieture is peer	The dies is diet.	Turn the audio receiver on. Clean the disc.
The playback picture is poor. The Search feature is not working.	The disc is dirty. Some discs have sections that do not	
The Search leature is not working.	allow searching.	This is normal on some discs.
The picture is not fitting properly.	Wrong menu option is selected in the	Select the correct TV type (16:9, Panscan
The picture is not litting properly.	SETUP MENU.	or Letterbox) which matches the TV.
The remote control is not working.	The batteries are weak or dead.	Install fresh batteries.
	The batteries are weak or dead. The batteries are not installed properly.	Install heart batteries. Install batteries according to the diagram.
	The remote is not aimed at the sensor.	Aim the remote at the sensor.
	Distance is too far or there is too much	Operate within 20ft, or reduce the light
	light in the room.	in the room.
	There is an obstacle in the path of the	Move obstacle.
	beam.	
	I .	

TROUBLESHOOTING GUIDE (CONTINUED)

SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION		
DVD				
The unit does not start playback.	Rating level set to block the DVD.	Enter your password, and/or change		
		the rating level.		
	DVD not inserted, or inserted upside-down.	Insert DVD correctly.		
	A non-playback disc is inserted.	Make sure to insert a DVD.		
	The disc is not placed in the guide.	Place the disc on the disc tray correctly		
		inside the guide.		
	The disc is dirty.	Clean the disc.		
Some functions do not operate as	Some features and functions are not	This is normal; try another function.		
stated.	available on all discs.			
Selected language is not being	If the audio or subtitle language does not	This is normal; try another disc.		
shown in the subtitles, or spoken.	appear on the disc, then the initial setting			
	will not be seen/heard.			
Subtitles are not working properly.	Subtitles appear only when the discs	This is normal; try another disc.		
	contain them.			
	Subtitles not turned on.	Turn the subtitles on.		
Angle cannot be changed.	Angles may not be recorded on the disc	Try another disc, or wait for a scene		
	(see disc jacket/case), or they may only	which allows a different camera angle.		
	be recorded on certain scenes.			
The Rating Level password has	Call the number listed on the warranty to	After receiving the information, reset		
been forgotten.	get the information to reset the	the password and write it down.		
	password.			
VCD (VIDEO CD)				
No menu playback.	The VCD inserted does not have the	Try another VCD.		
	playback control.			
DVD RECORDER	I			
Will not record.	The wrong disc type is inserted.	Use a DVD+/-R or DVD+/-RW only.		
	The DVD is full.	Insert a blank DVD+/-R or DVD+/-RW.		
	The DVD is locked (protected).	Unlock the DVD (see page 67).		
	No signal from the selected source.	Check the input signal connection or		
		make sure the correct source has been		
		selected.		
A recorded DVD will not play in another player.	The DVD+R has not been finalized.	Finalize the disc-see page 67.		
	The DVD has not been made compatible.	Make compatible—see page 69.		

FOR ADDITIONAL SET-UP OR OPERATING ASSISTANCE, PLEASE VISIT OUR WEBSITE AT WWW.MEMOREXELECTRONICS.COM OR CONTACT CUSTOMER SERVICE AT (954) 660-7100

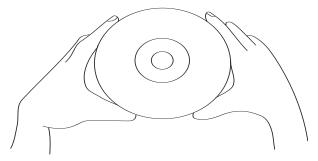
PLEASE KEEP ALL PACKAGING MATERIAL FOR AT LEAST 90 DAYS IN CASE YOU NEED TO RETURN THIS PRODUCT TO YOUR PLACE OF PURCHASE OR MEMOREX.

FOR PARTS AND ACCESSORIES, CONTACT FOX INTERNATIONAL AT 1-800-321-6993.

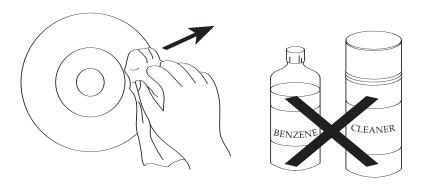
CARE AND MAINTENANCE

Caring for Discs

 Treat the disc carefully. Handle the disc only by its edges. Never allow your fingers to come in contact with the shiny, unprinted side of the disc.



- · Do not attach adhesive tape, stickers, etc. to the disc label.
- Clean the disc periodically with a soft, lint-free, dry cloth. Never use detergents or abrasive cleaners to clean the disc. If necessary, use a CD cleaning kit.
- If a disc skips or gets stuck on a section of the disc, it is probably dirty or damaged (scratched).
- When cleaning the disc, wipe in straight lines from the center of the disc to the outer edge of the disc. Never wipe in circular motions.



- · Discs should be stored in their cases after each use to avoid damage.
- Do not expose discs to direct sunlight, high humidity, high temperatures or dust, etc. Prolonged exposure or extreme temperatures can warp the disc.
- Do not stick or write anything on either side of the disc. Sharp writing instruments, or the ink, may damage the surface.

Cleaning the Unit

- To prevent fire or shock hazard, disconnect your unit from the AC power source when cleaning.
- The finish on your unit may be cleaned with a dust cloth and cared for as other furniture. Use caution when cleaning and wiping the plastic parts.
- Mild soap and a damp cloth may be used on the front panel.

SPECIFICATIONS

Power Requirements	AC 120V, 60Hz
Power Consumption	35W (approx. 5 W when set to Standby mode)
Weight	7.3 Lbs
Dimensions	16.875 (L) x 12.375 (W) x 2.5 (H) inches
Weight and dimensions are approximate.	
Signal System	NTSC, PAL M
Operating Temperature	+5° to +35°C
Operating Humidity Range	5% to 90% (no condensation)
Discs Played:	
DVD-VIDEO Disc	
12cm single-sided, single layer	
12cm single-sided, dual layer	
12cm double-sided, single layer	
8cm single-sided, single layer	
8cm single-sided, dual layer	
8cm double-sided, single layer	
COMPACT DISC (VIDEO CD)	
12cm disc	
8cm disc	
Video Output Level	1Vp-p
Audio Output Level	
Audio Signal Output Characteristics:	
Frequency Responses:	
	20Hz-20KHz (48KHz/96KHz sampling)
CD Audio	20Hz-20KHz
S/N Ratio	70dB
Wow and Flutter	Below Measurable Level
Pickup:	
Wavelength	655nm
Laser Power	
Recording:	
Recording Format	DVD+VR Video Recording Format
Recording Disc	4.7GB DVD+R/DVD+RW/DVD-R/DVD-RW

Specifications are subject to change without notice.

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Visit our website at www.memorexelectronics.com