

# DVD Player & Recorder

**DVR-0800**

## Operation Manual



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## Important Safety Instructions

- Read these instructions. All the safety and operating instructions should be read before the equipment is operated.
- Keep these instructions. The safety and operating instructions should be retained for future reference.
- Heed all warnings. All warnings on the equipment and in the operating instructions should be adhered to.
- Follow all instructions. All operating and use instructions should be followed.
- Do not use this unit near water. For example, near a bathtub, sink, laundry tub, in a wet basement, or a swimming pool.
- Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth on the exterior cabinet only.
- Slots and openings in the cabinet back or bottom are provided to for ventilation, to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. Do not place the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed in a bookcase or rack unless proper ventilation is provided.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produces heat.
- This unit is equipped with a polarized plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the plug provided doesn't fit, consult an electrician for replacement of the obsolete outlet. Removal of the polarized plug will diminish the plugs level of safety.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the product. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.
- To protect your unit from a lightning storm, or when it is left unattended and unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system.
- Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.
- If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges.
- Refer all servicing to qualified service person. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, exposed to rain or moisture, does not operate normally, or has been dropped.
- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Do not use cracked, deformed, or repaired disk. These disks are easily broken and may cause serious personal injury and product malfunction.



The lighting flash with arrowhead symbol, within an triangle, alerts the user to “dangerous voltage” which could cause electric shock.



The exclamation point within a triangle indicates to the user to read important operating and maintenance instructions in the manual.

## About this manual

The operation described here mainly refers to the use of the remote control handset (R/C). Buttons with same or similar marking at the main unit have the same function like those of the R/C.

## This player supports the following Media Formats:

DVD-Video  
CD-R  
CD-RW  
CD Audio  
Photo CD  
DVD+RW  
DVD+R  
MP3

## Important Note:

**This unit plays CD-R, CD-RW and MP3 disks, although CD-R and CD-RW media will not be indicated in the display. But due to the variety of disk types, recording computers, operating systems and burning software we cannot guarantee that every CD-R or CD-RW is playable.**

The types of functions and operations that can be used for a particular disk vary depending on the features of that disk. In some cases, these functions and operations may differ from the descriptions given in this Operations Manual. In this event, follow the instructions given on the screen. This Operation Manual only covers basic disk operations.

## Copyright Information:

Unauthorized copying, broadcasting, public performance, and lending of disks are prohibited. 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.

## Regional Management Information:

This DVD/CD player is designed and manufactured to respond to the region management information that is recorded on a DVD disk. If the region code described on the DVD disk does not correspond to the region code of this DVD/CD player, this DVD/CD player cannot play this disk. The region code for this DVD player is "1".



Please note for a better understanding of this manual that the program of a DVD may be divided into several "titles" (e.g. main movie, material, interviews etc.). Each of these titles can be divided into "chapters". The program of audio CD's is divided into "tracks".

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# Features

## INTRODUCTION

Thank you for buying this Polaroid DVD Recorder. We hope you enjoy this quality unit with its fantastic features and easy playback/recording operation. With it, you can watch DVDs, music disks, or watch TV shows from external source devices. The most outstanding feature that attracts you perhaps is that you can record these shows to DVD+RW or DVD+R disks in various ways, as you like.

## GUI

The product provides customers a friendly GUI, which is very useful for you to understand and enjoy all functions the product provides:

## RECORDING FEATURES

### ■ RECORD FUNCTION

Built-in TV tuner lets you record from TV, audio, video onto DVD+R/RW.

There are CVBS composite video, S-video and RF Cable TV signal inputs.

### ■ EDIT/DELETE FUNCTION

Disk delete, rename (only DVD+RW)

Title deletion – Title is actually deleted with all header information about it.

Automatic chapter insertion (at 4 min, 10 min, 20 min , 30 min intervals or OFF)

Modification of title name

### ■ PLAYBACK FUNCTION

Four levels of fast/slow play, frame-by-frame playback, search by time and repeat.

### ■ Timer programming feature

**The following timer programming features are supported for both DVD+RW/+R**

- Program recording of shows –program the unit to record an upcoming show by selecting channel, date, start time, end time, and quality of recording.
- Manual Real time Clock set up
- Back-to-back recording of shows – you can select to record two shows that have an end time of one show coinciding with the start time of another show.

Let you enter a multi-digit codes used in TV Guide show publication for fast and easy recording.

## DVD FUNCTIONS

### ■ High Resolution

Adopt an MPEG2 decoding format to achieve horizontal resolution of more than 500 lines.

### ■ Superior sound

Built-in Dolby Digital decoder to output digital audio signal to reproduce high quality sound effects.

### ■ Special Function

Supports multi-angle and multi-language playback for enjoying unique video features.

### ■ Video Output

Standard Video, S-Video and Component Video output.

### ■ Audio Output

2CH and 5.1CH analog audio output, optical and coaxial digital audio output could be connected to any amplifying equipment.

### ■ Screen

Supports 4:3 and 16:9 aspect ratios.

### ■ Zoom Function

Enlarge JPEG pictures for greater detail.

### ■ All Playback Functions

Fast forward and backward, slow playback, step playback, repeat playback and program playback.

### ■ Search By Time

Search for scenes by time; ideal for finding your favorite scenes.

### ■ Last Memory Playback

Continue playing from the last point you stopped.

## Before You Switch On

### Place in Position

Choose a location with sufficient air circulation to prevent overheating. Do not expose the unit to direct sunlight or other heat sources.

The product must be positioned horizontally. Do not put any heavy objects on its housing. Protect the laser unit against dust and if necessary, use a cleansing disk carefully following its operating instructions.

### Condensation

Condensation may cause the laser lens to malfunction. For example, bringing the unit from a cold environment to a warm surrounding can cause condensation, or using the player in humid environments.

- When moving the unit from a cold environment to a warm environment, take the disk out of the unit and wait for about an hour, until the unit has warmed.
- Do not use this unit in high humidity environments.

### Handling Disk's

Touching the shiny surface of disks can leave dirt, oils or scratches. Always handle the disc from its label side.

Putting stickers or adhesive labels on the disk can lead to an imbalance in the disk and cause a malfunction.



Do not expose disks to direct sunlight or other heat sources.

Please store the disks only in their sleeves.

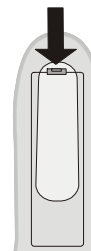
### Cleaning a Disk

Clean disks with a soft cloth. Do not use any type of cleaning agent, liquid or solvent. Wipe from the inside to the outer edge. Do not wipe in a circular direction.

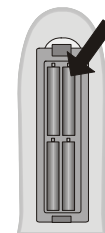


### Using the Remote Control

1. Open the battery compartment that is found on the backside of the remote.



2. Insert four batteries (1.5 V, size AAA). Make sure the polarity matches the marks inside the compartment or the remote will not work and could cause damage.



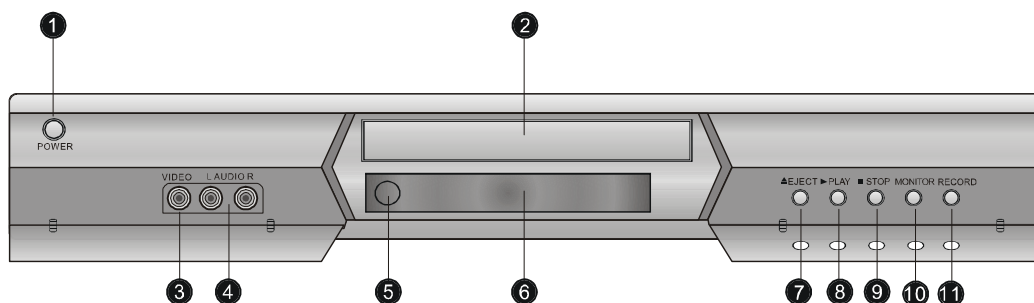
3. Replace the cover and use the remote. The remote has a range of approximately 20 feet and works best when pointed directly at the DVD player (at angles up to 60° from the front of the player). Obstructions between the player and the remote (like people, pets, or plants) will diminish the remotes effectiveness.



### A WORD ABOUT BATTERIES:

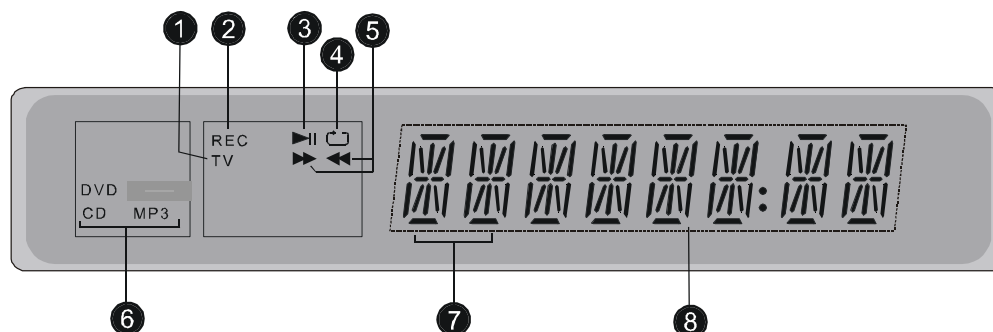
- Prevent damage to your remote by removing batteries prior to storage.
- Batteries contain chemical substances. Used batteries should be disposed of at a household hazardous waste collection site.
- Never throw batteries into fire, as they could explode.
- Do not attempt to recharge a battery unless the battery specifically is marked "rechargeable." Dispose of immediately.
- Keep all batteries, used or new, out of the reach of children.

## Elements of Operation - Front Panel



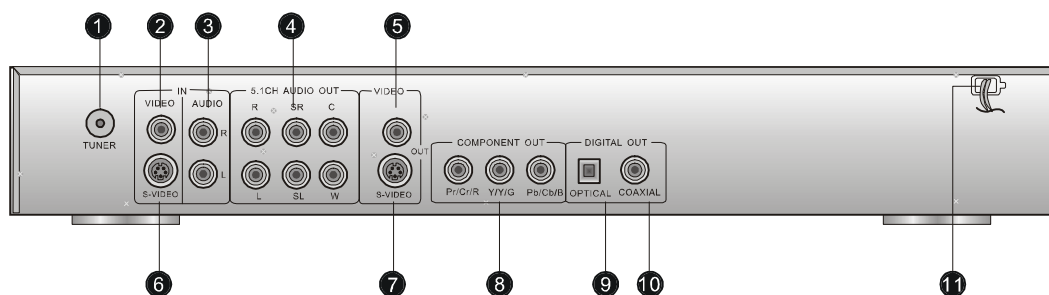
- |                                   |   |
|-----------------------------------|---|
| 1. <b>POWER button</b>            | -Press to turn on/off the power.                            |
| 2. <b>Disk tray</b>               | -Use to load disk.  |
| 3. <b>VIDEO input jack(CVBS2)</b> | -Connection for a video output.                             |
| 4. <b>L-AUDIO-R input jacks</b>   | -Connections for audio output.                              |
| 5. <b>Remote sensor</b>           | -Receiving the signal from the remote control.              |
| 6. <b>Display panel</b>           | -Indicates the current status of the unit.                  |
| 7. <b>EJECT button</b>            | -Press to open/close the disk tray.                         |
| 8. <b>PLAY button</b>             | -Press to begin the playback of the inserted disk.          |
| 9. <b>STOP button</b>             | -Press to stop the playback.                                |
| 10. <b>MONITOR button</b>         | -Press to shift among DVD, TV, CVBS1, CVBS2 and S-Video In. |
| 11. <b>RECORD button</b>          | -Press to activate the record function.                     |

## Display Panel



- |                                   |                                  |
|-----------------------------------|----------------------------------|
| 1. TV status indicator            | 5. Fast forward/rewind indicator |
| 2. Recording indicator            | 6. Disk type indicators          |
| 3. Playing/pause status indicator | 7. Track/Chapter indicator       |
| 4. Repeat status indicator        | 8. Playing time indicator        |

## Rear Panel

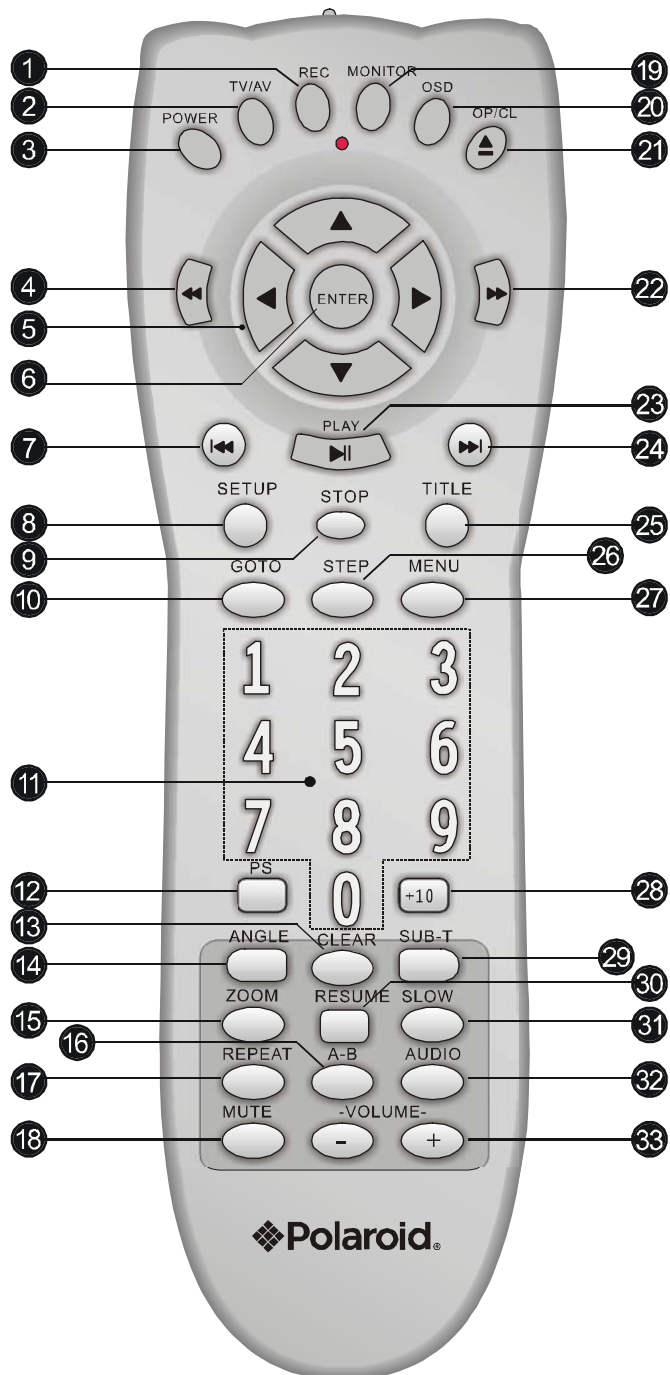


- |                             |                                 |
|-----------------------------|---------------------------------|
| 1. TV TUNER jack            | 7. S-VIDEO output jack          |
| 2. VIDEO input jack (CVBS1) | 8. Component video output jacks |
| 3. 2ch Audio input jack     | 9. Optical Digital output jack  |
| 4. 5.1ch Audio output jacks | 10. Coaxial Digital output jack |
| 5. VIDEO output jack        | 11. Power-supply cord           |
| 6. S-VIDEO input jack       |                                 |



## The Remote Control Handset (R/C)

1	REC	Recording start button.
2	TV/AV	Press to shift between CVBS1, CVBS2, S-VIDEO and RF.
3	POWER	Switch between stand-by and working status.
4	◀◀	Press to search backward.
5	◀ ▶ ▶▶ ▶	Arrow select. (OSD navigation buttons) Press ◀ / ▶ to tune the effect of the reception. Press ▶▶▶ to advance to the next channel or to go back to the preceding channel.
6	ENTER	Press to confirm the selection.
7	◀◀◀	Press to skip to the previous track.
8	SETUP	Press to activate the setup menu.
9	STOP	Press to stop playback.
10	GOTO	Allows you to select the desired disk starting time, track or title.
11	Number buttons	In Play DVD mode, select numbers by pressing these buttons. In TV mode, press to select channel.
12	PS	Press to shift between 'Progressive' and 'Interlace' mode.
13	CLEAR	Press to clear the incorrect input when you edit a disc.
14	ANGLE	During DVD playback, press to access various camera angles (if the DVD disk contains multiple camera angles).
15	ZOOM	When a DVD is playing, press this button to activate zoom.
16	A-B	Press to mark a segment to repeat between A and B.
17	REPEAT	Press to repeat a chapter, track, title, or all content.
18	MUTE	Press to mute the player's audio output.
19	MONITOR	Press to shift among DVD, TV, CVBS1, CBVS2 and S-Video In.
20	OSD	'On Screen Display'
21	OPEN/CLOSE	Press to open/close the disk tray.
22	▶▶	Press to search forward.
23	▶	Press to pause the playback. Press again to resume the playback.
24	▶▶▶	Press to skip to the next chapter or menu.
25	TITLE	Press to display titles if present on the disk.
26	STEP	Press to step frame by frame.
27	MENU	Press to display the disk menu on the TV screen in Play mode.
28	+10	Press to select track numbers more than 10.
29	SUB-T	When a DVD is playing, press to select a subtitle language.
30	RESUME	Press to resume the playback.
31	SLOW	Press to activate slow forward or slow rewind.
32	AUDIO	Press to access various audio languages (if the DVD disk contains multiple audio languages).
33	VOLUME +/-	Press to increase or decrease the volume level.



# Connections

## Connecting to a TV

### Important Note:

- Not all cables shown below are included with this DVD player.
- Turning off the power to all equipment involved before making any connections will protect your speakers from possible damage.

### 1. Connecting to your TV will give you an Analog Audio Connection:

Using the supplied audio cables, connect the AUDIO OUT jacks (LEFT/RIGHT) on the DVD Player with the AUDIO IN jacks (LEFT/RIGHT) on your TV.

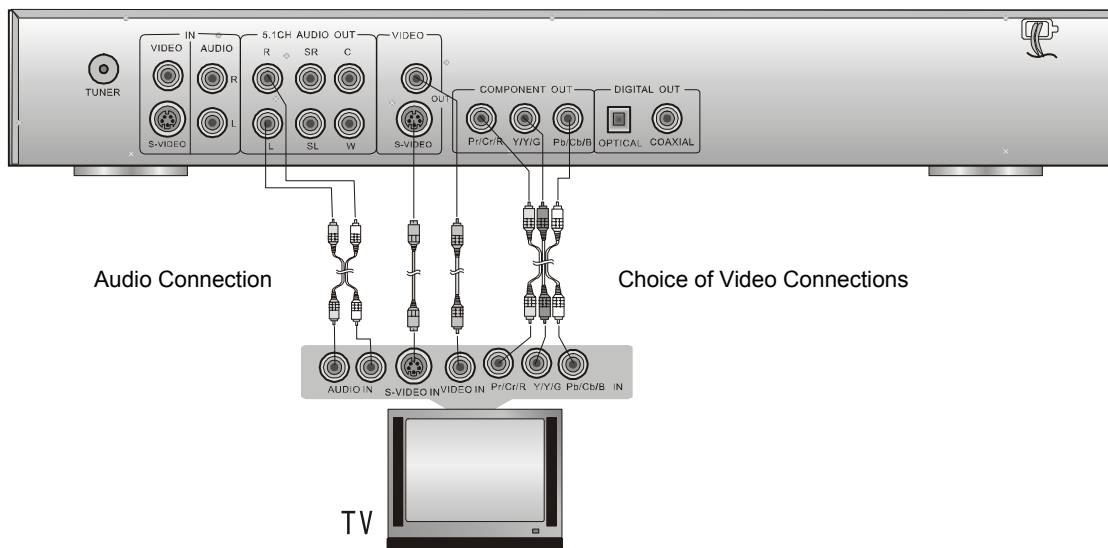
### 2. Choose your Video Connection (Analog, S-Video, or Component):

**Good** Analog Video Connection: Plug one end of the supplied video cable into the VIDEO OUT jack on the DVD Player and the other end to the VIDEO IN jack on your TV.

**Better** S-Video Connection: Plug the supplied video cable into the S-VIDEO OUT jack on the DVD Player and the other end to the S-VIDEO IN jack on your TV.

**Best** Component Connection: Plug one end of the supplied video cable into the COMPONENT OUT jack on the DVD Player and the other end to the VIDEO IN jack on your TV.

**Important Note:** The Video Connections described above are used in the various audio/video connections described on pages 12-14 in this manual.



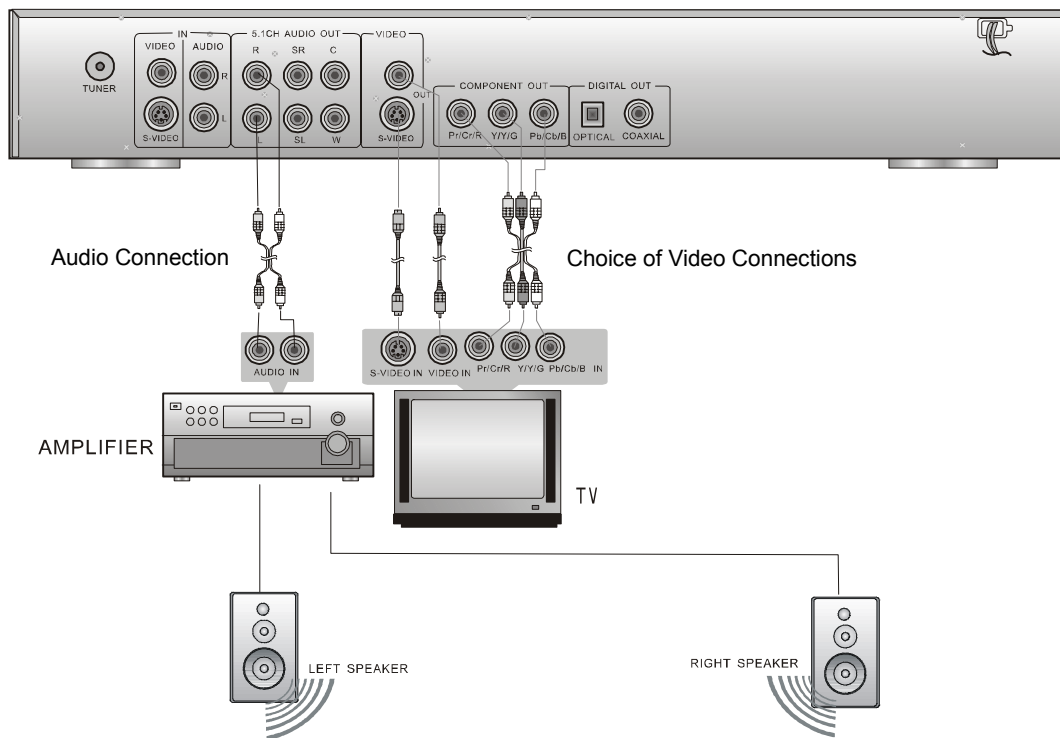
# Connections

## Analog Audio Connection

Using your choice of analog video, S-video, or Component video connection (see page 11), you also have the option to connect your DVD player to your stereo system for incredible stereo sound. Use the audio connection described below:

**1. Standard Analog Audio Connection:** Using the supplied audio cable, connect the AUDIO OUT jacks (LEFT/RIGHT) on the DVD Player with the AUDIO IN (LEFT/RIGHT) jacks on your amplifier or stereo receiver.

**NOTE:** Depending on the model of your TV, amplifier or stereo receiver, not all connections may be available.



# Connections

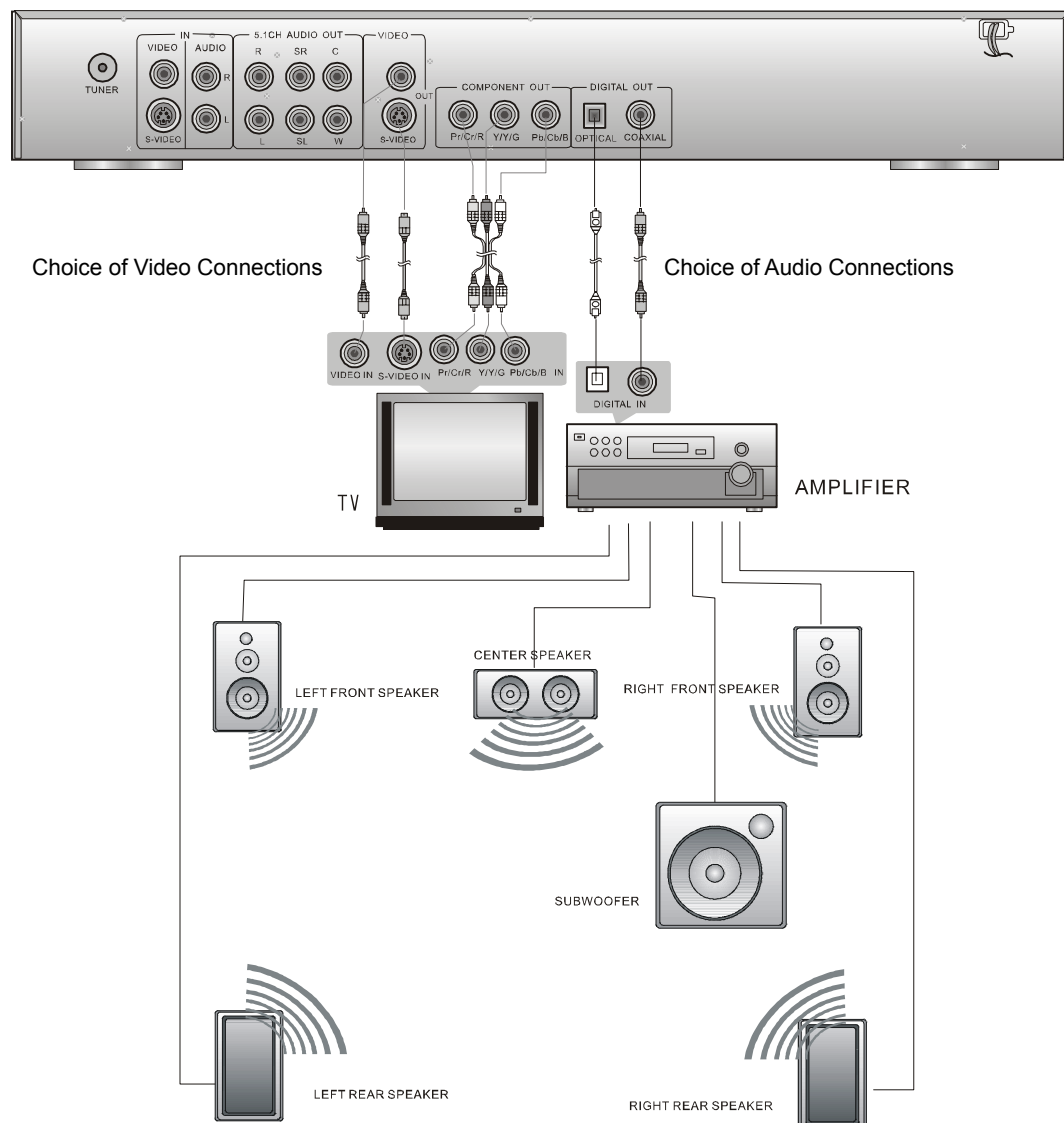
## Digital Audio Connection

Using your choice of analog video, S-video, or Component video connection (see page 11), you also have two Digital Audio options when connecting your DVD player to your stereo system. It is widely debated which connection (Optical or Coaxial) gives you better performance. However, either connection will give you superior sound. Use the connections described below:

**1. Optical Audio Connection:** Using an optical audio cable (not included), connect the OPTICAL jack on the DVD Player with the matching OPTICAL jack on your amplifier or stereo receiver.

**2. Coaxial Audio Connection:** Using a coaxial audio cable (not included), connect the COAXIAL jack on the DVD Player with the matching COAXIAL jack on your amplifier or stereo receiver.

Use the following diagram to connect the DVD player to your digital amplifier.



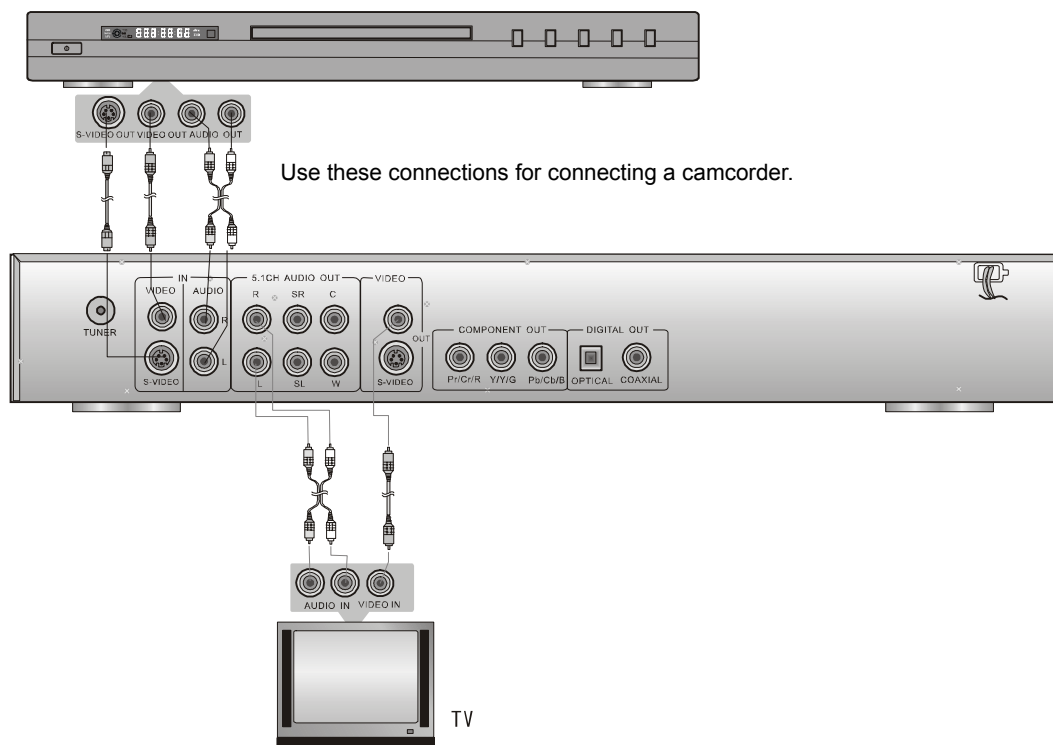
## Optical Digital Output

A protective cap covers the optical digital output. For future protection, store the cap when using this type of connection.

## Connections

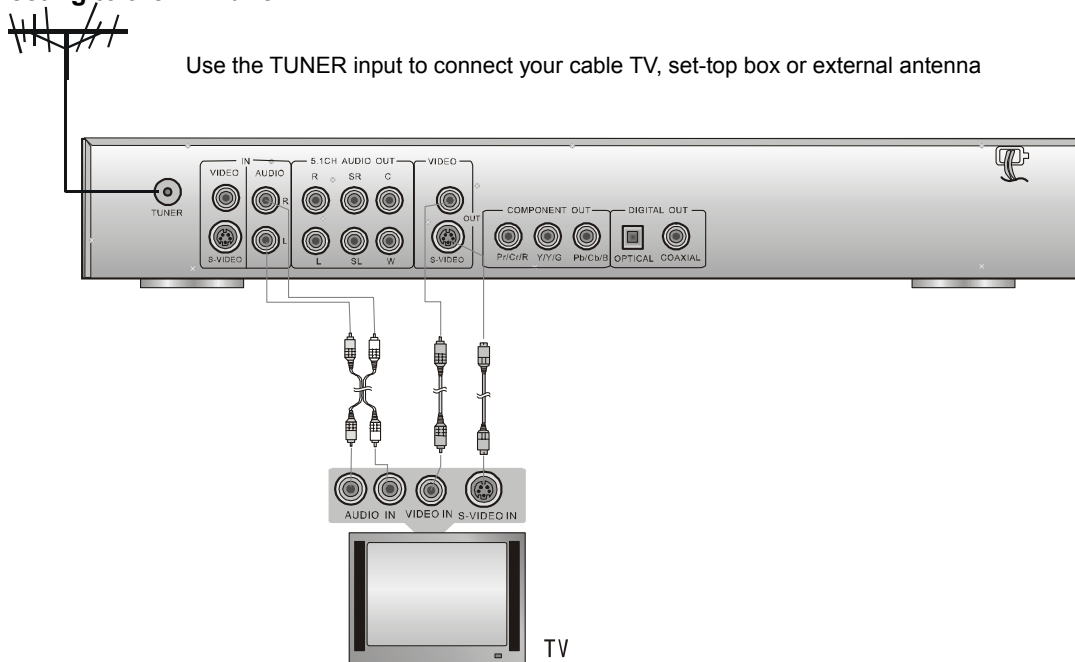
### Connecting to Audio/video Sources

This DVD player supports two-channel video input and two groups of audio input (one set of each is on the front panel, the other set of each is on the rear panel) for connecting a camcorder.



**Note:** Most prerecorded videocassettes and DVDs are copy protected. If you try to copy them with the DVD recorder, the Recorder display may show "COPY PROTECT".

### Connecting to the TV Tuner



## The DVR Setup Menu

**Installation:** The DVD-Recorder is equipped with a TV tuner making it possible for you to watch TV or record your favorite shows to DVD for later playback.

1. Connect your cable TV or antenna to the TUNER input jack found on the back of the DVD player. (See page 14)

2. Make the appropriate Audio/Video connections (see pages 11-14).

3. Plug in your DVD-Recorder. Now you're ready to configure the DVD-Recorder.

### Initial Configuration

1. Turn on the TV.
2. Press the **POWER** button on the remote to turn on the DVD-Recorder and press the **SETUP** button to call up the Menu. Use the ◀ ▶ ▲ ▼ (direction buttons) to select the desired option, then press **ENTER**.



Figure 1. The menu

**Note:** During DVD playback, if you want to watch TV, please highlight the Watch TV, and press **ENTER**.

During MP3 or CD playback, if you want to watch TV, please open the disc tray and take out the disc first.

### Auto-Channel Scan

1. After you've selected the **setup menu**, return to the **Recording Setup** menu and select the **Channel Setup** function. Select **Auto CH Scan** option and press the **Enter** button on the remote control so that the DVD-Recorder can begin to program itself using the auto-channel scanning function.



Figure 2. The Channel Setup Options

2. When the **Auto CH Scan** function is selected, the auto-channel scanning process begins.
3. After the auto-channel scanning process finishes, the total number of channels found is shown on the bottom left portion of the **Recording Setup** menu.
4. Select the **Channel List** function to display the complete list of all the channels that were found during the auto-channel scanning process.
5. Press the **SETUP** button on the remote to exit and save the selection.

## The DVR Setup Menu

### Setting The Clock

1. In order for the DVD-Recorder to record using a programmed setting, the internal clock must be set to the correct time. Use the **Set Clock** function in the **Recording Setup** menu to set the internal clock of the DVD-Recorder.

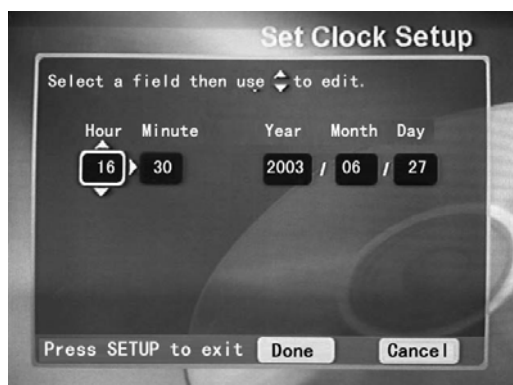


Figure 3. Setting The Clock

2. Press the **SETUP** button on the remote to exit and save the selection.

### TV / Media Playback Display

1. From the **Setup Menu** go to the **Video Setup** option and select the desired TV display mode you want to use during playback of your recording using the **TV Display** function. The DVD-Recorder can display video information during playback on your TV in letterbox, pan-and-scan, or wide-screen format (if you have a wide-screen 16:9 TV).

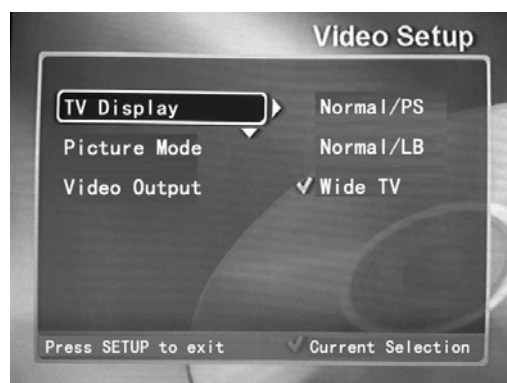


Figure 4. Select Letterbox, Pan-And-Scan or Wide-Screen

### Picture Mode Resolution

This Picture Mode function in the Video Setup menu offers Auto, Film, Video, Smart and Super Smart.

### Video Output

**S-video** – Divides video information into two separate signals (one for color, one for brightness).

**Component Video** – Separates color signals from black-and-white portions and into two color-difference signals. Superior resolution.

**RGB Video** – Consists of three separate video signals for red, blue, and green.



## The DVR Setup Menu

### Speaker Setup (Stereo Mode)

1. The DVD-Recorder is 6-channel DVD-Audio capable, provided a home theater audio receiver is present. If you **are not** hooking up the DVD-Recorder to a home theater audio receiver, the 6 (5.1) audio channels will be automatically down-mixed for basic stereo playback. The **Speaker Setup** menu shown below shows the default setting for basic stereo use.



Figure 5. Basic TV-Stereo Speaker Setup

**Down mix** function: means mixing 5.1 channels down to two channels. Only when Down mix is off will you see all the possible speaker options for 5.1 speaker systems. Set these options to agree with the speakers installed in your home entertainment system.

**LT/RT** function: This method of down mixing from 5.1 channel to 2 channel audio is well suited as input to an external Dolby Pro Logic Decoder (2 channel to 5.1 channel expansion).

**Stereo** function: A different method (from LT/RT down mix) of down mixing from 5.1 channels to 2 channels.

**Off** function: No down mixing will occur.

### Speaker Setup (Multi-Channel Mode)

1. This DVD-Recorder is 6-channel DVD-Audio capable (requires a home theater audio receiver). If you are connecting the DVD-Recorder to a home theater audio receiver, refer to the owner's manual that came with your home theater audio receiver in order to select the desired multi-channel audio mode. Go to **Setup Menu** and select **Dolby** to use the **Speaker Setup** function in order to set up the center, rear, and subwoofer speakers properly.



Figure 6. Activating The Center, Rear and Subwoofer Speakers

## The DVR Setup Menu

2. While remaining in the **Speaker Setup** function, use the arrow buttons on the remote control to select the amount of center and rear speaker delay desired. Press the **Enter** button on the remote control to establish the final delay distance.

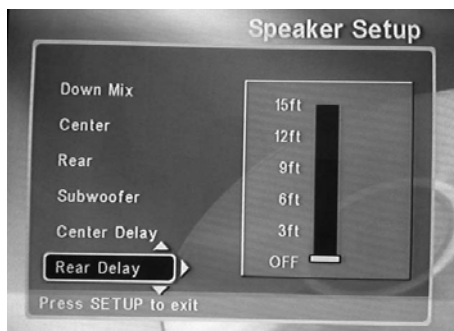
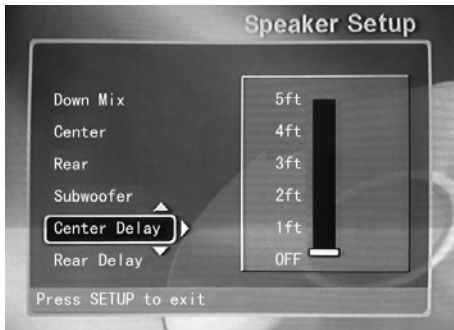


Figure 7. Establishing Center and Rear Speaker Delays

**Center Delay** function (*Default=0-5ms*): Increasing or decreasing the delay setting in milliseconds changes the virtual distance between the center speaker and the listener. The resulting effect, together with modifications to the rear delay, changes the listening environment to simulate different acoustical characteristics found in places such as nightclubs, auditoriums, churches, stadiums and the like.

**Rear Delay** function (*Default=0-15ms*): Increasing the delay setting increases the virtual distance of the rear speaker from the listener. The effect, in combination with the center delay setting, changes the listening environment to simulate different acoustical characteristics such as nightclub, auditorium, church and the like.

3. Press the **SETUP** button on the remote to exit and save the selection.

### Speaker Test

1. The **Speaker Test** function lets you test your speakers by sending a test tone through each speaker.

**On:** Plays a single tone in step-wise fashion at each of the speakers in the clockwise direction.

**Off:** Test-Tone feature is not enabled.

2. Press the **SETUP** button on the remote to exit and save the selection.

## The DVR Setup Menu

### Audio Setup

1. The *Audio Setup* menu is directly below the *Dolby* menu. Press **ENTER** to access the *Audio Setup* menu.

The *Audio Setup* menu allows you to access the **Digital Out**, **Dynamic Compress**, and **ProLogic** functions.

**Digital Out** function: In DVD playback mode, **Digital Out** refers to bypassing the recorder system's internal DACS and instead feeding the digital audio signal to an external receiver for better sound quality.

The three outputs are:

**Analog:** normal playback.

**External Decode:** Audio not decoded by recorder system so this output is appropriate for an external decoder/receiver with higher performance standards.

**Internal Decode:** Audio decoded by recorder system and digital signal fed to the outside of the box perhaps to be fed into an external receiver with better DACS than this recorder system.

2. Press the **SETUP button** on the remote to exit and save the selection.

### Dynamic Compression Setup

**Dynamic Compression** functions: A **FULL to OFF** sliding control for dynamic range allows you to turn down the level of loud passages (explosions, car crashes and the like), while at the same time keeping soft passages loud enough to clearly hear them. The setting is expressed as a fraction of the full dynamic range.

When set to **FULL**, the range between loudest and softest is compressed to the maximum during playback.

When set to **OFF** no compression occurs during playback.

3. Press the **SETUP button** on the remote to exit and save the selection.

### Dolby ProLogic Setup

The Dolby ProLogic feature is a Dolby surround sound audio format that can enhance standard 2-channel stereo program material.

1. Use the arrow keys on the remote to select the **ProLogic** function, and to turn the function on and off.

**ON:** When set to **ON**, 2-channel stereo audio output is converted into six channel audio output.

**OFF:** When **OFF**, the 2-channel stereo audio output remains unchanged.

**Auto:** When the DVD-Recorder detects a Left-Total, Right-Total (LT/RT) audio source, the Auto setting automatically processes the audio through Pro Logic decoding.

2. Press the **SETUP button** on the remote to exit and save the selection.

## DVD+RW/DVD+R Disk Recording

### Starting The Recording Session

1. The quality of the recording to a DVD+RW/+R disc directly depends on the selection of the recording mode. Decide on the quality of the recording you want, taking into account the amount of the playback time each recording mode requires.

Selecting **Best**, for example, means only one 80-minute recording can go on the disc. On the other hand, that 80-minute recording will be excellent in terms of its overall audio-visual quality.

2. To begin the recording setup, use the arrow keys on the remote to call up the *Recording Setup* menu from the main *Setup* menu, as shown here. The *Recording Setup* menu is comprised of the **Recording Quality**, **Auto Chapter**, **Set Clock**, and **Channel Select** functions.

3. You can also determine how much time should be allotted to every chapter of your recording, if desired. These chapters can then be navigated through at playback time by using the arrow keys on the remote control. Press **Enter** to make the auto chapter selection, as shown here.

4. Press the **SETUP** button on the remote to exit and save the selection.

### Recording Modes

The DVD-Recorder offers three DVD recording functions:

- **Quick Record** allows you to perform a simplified unattended timer recording.
- **My Record List** allows you to view all the recordings that will be made onto the disk.

**Note:** Most prerecorded videocassettes and DVDs are copy protected. If you try to copy them with the DVD recorder, the Recorder display may show "COPY PROTECT".



Figure 8. The Record Program Menu

### One Touch Recording

1. From the *Menu*, select the **Watch TV** function. A TV program appears on the TV screen.

2. Press the arrow keys on the remote to move through your favorite channel selections. Each channel will appear on your TV screen as you use the tuner on the DVD Recorder to find the channel you want.

3. Press the **RECORD** button on the remote control to start recording the program on the TV screen. The message "RECORDING" and a timer counter are superimposed on the TV screen.

4. Press the **STOP** button to end the recording session. The message "CLOSING" appears on the screen, informing you the recording session is ending. Wait a minute or so for active the disc title to return to your TV screen.

## DVD+RW/DVD+R Disk Recording

### Quick Recording

1. Press the **OP/CL** button on the remote control to open the DVD loader.
2. Place a DVD+RW or DVD+R disk in the DVD loader, and press the **OP/CL** button on the remote again to close it.
3. Press the **Setup** button on the remote to call up the master **Setup** menu again. Toggle down to the **Record Program** function.
4. Select the **Quick Record** function to call up the **Record Show** menu.



Figure 9. Starting The Quick Recording

**Note:** The player only supports “hp” DVD+R disc. Other discs’ recording qualities are not guaranteed.

5. Program the start and stop times, the day, and the channel desired, of the recording session.

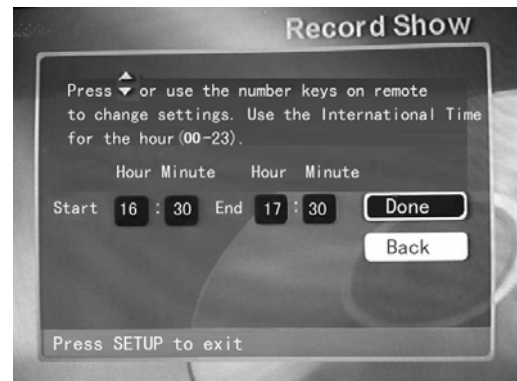


Figure 10. Selecting The Start And Stop Times

6. Using the arrow buttons on the remote, select the day, and the channel desired, of the recording session.



Figure 11. Selecting The Recording Day

## DVD+RW/DVD+R Disk Recording

7. The total number of shows that can be recorded onto a DVD+RW/+R disc directly depends on the selection of the quality of the recording. Decide on the quality of the recording you want, taking into account the total amount of storage space that will be available on the DVD+RW/+R disc to be used.

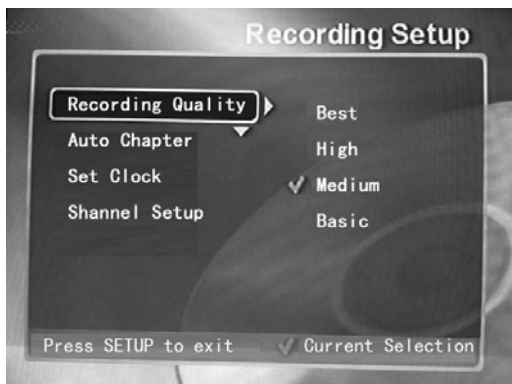


Figure 12. Selecting The Recording Quality Mode To Be Used

8. Go to **Setup Menu** and select **Recording Setup**, and then **Auto Chapter** to determine how much time should be allotted to each chapter. Use the navigation buttons on your remote control to quickly move from one chapter to another.

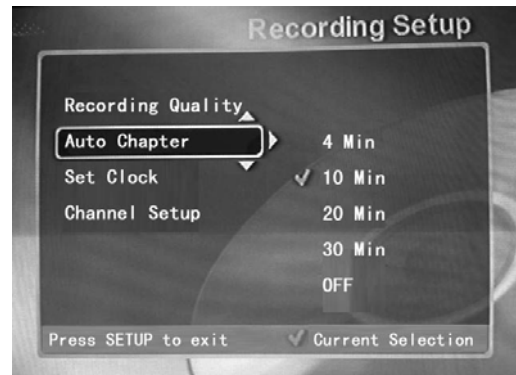


Figure 13. Selecting Time Length For Each Chapter

### My Record List

Using the **My Record List** function from the **Record Program** menu lets you see your record list on your DVD recorder.



Figure 14. My Record List

# Disk Operations

## Disk Mastering

After your disk has been recorded, you may wish to name the tracks after the programs you've recorded, or play or delete a title.

## Basic Disk Options

The DVD-Recorder can format, erase, finalize and rename a DVD+RW and DVD+R disc using the **Disc Operations** menu functions. The **Disc Operations** menu is accessed using the **Edit Disc** function.



Figure 15. The disc Operation Menu

## Formatting A Disk

Formatting a DVD+RW disk is an automatic function; therefore the **Format** function is obsolete.

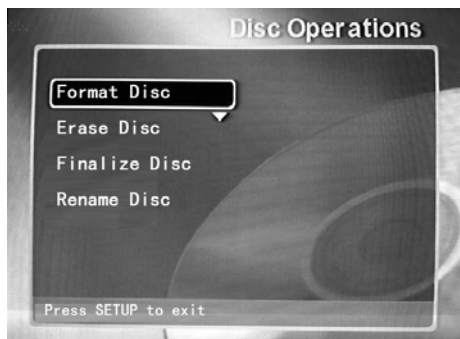


Figure 16. Formatting A Disk

## Erasing A Disk

**NOTE: ERASING ANY DISC IS AN IRREVERSIBLE AND PERMANENT OPERATION! Be sure to back up any and all titles or tracks you want to save onto another disc before erasing the original disc!**

The **Erase Disc** function is used to erase all data from a DVD+RW disc. Once any disc is erased, whatever was on it is permanently gone.

Use the arrow buttons and the **ENTER** button of your remote control to erase your disc.



Figure 17. Erasing A Disk

## Finalize Disk (DVD+R Discs Only)

When you want to finalize your recordings on a DVD+R disc, use the **Finalize Disc** function.

**NOTE: Once a DVD+R disc has been finalized, you cannot either edit any of the titles on the disc, nor can you add any new titles to the disc!**

Use the arrow buttons and the **ENTER** button of your remote control to finalize your disc.

## Title Rename/Delete

Accessing the **Play/Edit Titles** menu option from the **Menu** lets you rename and delete titles as desired, using the **TITLE RENAME** and **TITLE DELETE** functions. At the Non-Name Disk menu, press the **OSD** button to bring up the **TITLE RENAME / TITLE DELETE** function pop-up window.

## Disk Playback

This section addresses basic playback for DVDs and CDs.

### Playing Back A Disc (DVD–CD)

1. Press the **POWER** button on the remote control to turn on the DVD-Recorder for use as a standard DVD player.
2. Press the **OP/CL** button on the remote control to open the DVD disk tray loader.
3. Place a DVD-ROM disk on the disk tray.
4. To select the desired language subtitles to be displayed during disk playback, return to the **Menu** and call up the **DVD Control Setup** menu on the screen. At the **Language Preferences** option, select the desired language.

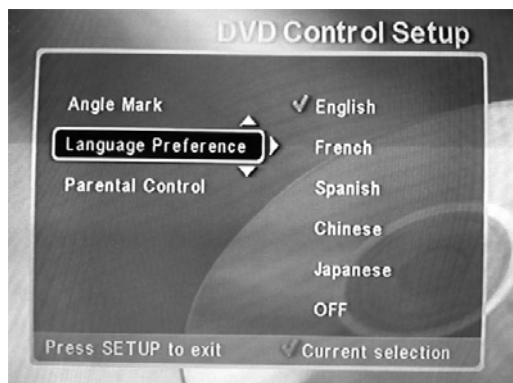


Figure 18. Performing Language Selection

5. If you want to use reverse angle information during the playback session, turn on the **Angle Mark** function in the **DVD Control Setup** menu.
6. Press the **ENTER** button on the remote control to close the DVD loader by retracting the disk tray.
7. The player starts to play the first selection recorded on the disc and continues sequentially until the end is reached.

**NOTE:** In the event playback is not realized, check to see if the parental controls are preventing playback. Turn off the parental controls to realize disc playback.

### Pausing Playback

1. Press the **▶||** button any time during playback of a disk. A “freeze frame” is created that stays on the screen until you resume playing the disk. Sound is muted during still playback.
2. To resume playback, press the **ENTER** button or the **▶||** button.

### Fast Forward/Reverse Playback (x2 – x8 Normal Speed)

1. Press **▶▶** or **◀◀** buttons during playback. After the fifth press, normal speed playback resumes.
2. Alternately, press the **ENTER** button to resume normal playback at any fast speed setting.

### Stop Playback

1. Press the **STOP** button.
2. Press the **ENTER** button to resume playing.
3. Press **STOP** again. When stopped, this player returns to chapter 1 or track 1.

### Using The Trick Modes

The DVD-Recorder supports the following trick modes:

- **Fast forward (FF),**
- **Fast reverse (FR),**
- **Slow Motion (SF),**
- **Repeat A-B,**
- **Slow motion step frame-by-frame, and**
- **Zoom In/Out**

You can use these trick modes when live video or recorded video is displayed on the screen, so long as some amount of video has been stored in the circular buffer.

### Slow Motion

When video is stored in the buffer, you can select the **SLOW** speed at any point by pressing the **SLOW** button. You can continue to press the **SLOW** button two times to parse the disk at 4x and 8x, before returning to normal speed.



## Disk Playback

### Fast Forward/Fast Reverse

Press the **▶▶** button to jump forward in discrete steps of 2x, 4x, 6x, or 8x normal playing speed. The screen will display the active fast forward speed (FF 2x, FF 4x, FF 6x, or FF8x).

Likewise, pressing the **◀◀** button will allow you to jump backward in discrete steps. The screen will display the active fast reverse speed (FR 2x, FR 4x, FR 6x, or FR 8x).

### Slow Motion Step Frame-By-Frame

Press the **STEP** button repeatedly to step through frames one at a time during your playback session. Press the **ENTER** or **PLAY** button to resume normal viewing.

### Repeat A Segment Between Points A and B

When viewing a DVD, you can designate two points and then view the designated segment repeatedly until you want to resume normal viewing.

1. While watching the DVD movie, press the **A-B** button at the point you want a segment to start. A message flashes at the top of the display to confirm your action (**A TO B SET A**).
2. Allow the video to continue playing and press the **A-B** button again at the point you want the repeat segment to end. This time the message will flash: **A TO B SET B**. Following these directions will cause your segment to start from point A, play to point B, and continue indefinitely.
3. To stop the repeat **A-B mode** press **REPEAT** again. The segment stops playing and a message will flash: **A TO B CANCELLED**.

### Zoom In/Out

When viewing a DVD, you can zoom in on any particular segment or frame as desired.

To zoom out and return to normal viewing, you have to cycle through all of the levels of magnification. Typically, most DVD movies offer up to three levels of magnification before returning to normal viewing.

1. To zoom in on a single frame, press the **PAUSE** button on the remote to freeze the frame. Once the frame is displayed, press the **ZOOM** button on the remote as desired to magnify the frame on your TV screen.

2. To zoom in on a sequence of frames, press the **ZOOM** button as desired to magnify the sequence during its progression.

### Resuming Playback From The Same Location (all discs)

1. During normal playback, press Stop. The screen displays a stationary logo or, if the screen saver is set to on, the screen saver is displayed after a timeout interval.
2. To resume playback, press Enter again. However, this step does not work if you eject the disc, reinsert the disc, and then try to resume from the same spot.

### Locating A Specific Title Or Chapter Using The MENU Button (DVD)

To play a specific chapter from a given title on a DVD you can use the MENU button to display a menu to make your title and chapter selection.

The procedure described here is general in nature. If the steps seem inappropriate for the DVD you are attempting to play, disregard these instructions and follow the instructions that appear on the screen.

1. During normal playback, press **MENU** button. The screen displays the chapter menu of the disc. The menu may not contain all the chapters in the movie title. However, the disc creators provide additional menus to navigate, which cover all the chapters. Use the direction buttons to navigate the menus.
2. Position the screen highlight over your selection and press **ENTER**. Alternately, you can press the number of the desired chapter.
3. During playback, you can press **GOTO** and enter a chapter number. Press a number button corresponding to the chapter number and press **ENTER**.

## Disk Playback

### Repeating A Chapter Or Track (DVD-CD) DVD

1. While playing a chapter, press **REPEAT**. The message **CHAPTER REPEAT ON** appears.
2. To repeat the entire title, press **REPEAT** again. The message **TITLE REPEAT ON** appears.
3. Press **REPEAT** again to resume normal playback. The message **REPEAT OFF** appears.

### Zooming A Video And Shifting The View point (DVD)

To zoom a video x1.5, x2, or x3:

1. During normal or slow motion play, press **ZOOM**. The picture is magnified x1.5.
2. To increase magnification press **ZOOM** again (x2) and again (x3).
3. Pressing **ZOOM** again turns zoom off.
4. While zoomed you can change the viewpoint by pressing the direction buttons.

### CD Playback

The player will play all tracks for CD discs continuously in default status. You can press **◀▶** buttons or number buttons to select a certain track.

### MP3-CD Playback

When you have inserted a MP3 coded CD you see a menu showing the folders on the CD. Use the **◀ ▶ ▲ ▼** (direction buttons) to select the desired folder, then press **ENTER**. Now the tracks inside are displayed.

— Press the direction button **▶** to open the folder. Use these buttons **▲ ▼** to choose a song, then press the **ENTER** button to start playback.

— Press the **STOP** button to end the playback.

— Press the **REPEAT** button to select various repeat modes.

Press **◀** or **▶** to skip to the other song page.

### Viewing JPEG Pictures

If you save JPEG pictures to a CD ROM you can view them on a television monitor. The software that created the JPEG picture CD creates a folder that you can examine when you select *Play Disc*. There are several ways of viewing the pictures.

### Previewing Contents Of A Folder

1. Open the disc tray, insert the JPEG disc and close the tray.

2. The disc contents are displayed (JPEGs may be in a folder).

3. To preview a picture, use direction buttons to move the highlight over a folder entry. The small preview window reveals the contents of a clip when the highlight is positioned over the clip title. .

4. To see a full screen view of the selected clip, press **ENTER**.

Depending on the way the Slideshow control is conditioned; a slideshow may commence operation as soon as you view the full screen presentation. There are three slideshow modes: Sequential, Random, and Manual. In Sequential mode, slides are automatically presented in the order they appear in the disc directory.

5. To cancel the slide show press **RESUME** (Slideshow) until the message **NONE** appears.

6. To view a random slideshow press **RESUME** until the message **RAND** appears.

7. To continue previewing clips press **STOP**.

### Zooming a JPEG

You can enlarge a JPEG to see detail up close.

1. Position the highlight over a desired JPEG.
2. Press the **ZOOM** button. The message **ZOOM ON** appears.
3. Press the **▶** button; the view enlarges to 150%.
4. Pressing the **▶** button repeatedly steps through 150%, and 200%.
5. To resume normal enlargement, press **ZOOM** again.

### Panning Around A JPEG

1. Follow usual procedure for playing a disc: Open the disc tray, insert the JPEG disc and close the tray
2. Select a JPEG for viewing.
3. Press the **ZOOM** button.
4. Use the direction buttons to pan up, down, left and right.

### Rotating a JPEG

1. Position the highlight over a desired JPEG.
2. Press the right or left direction button one time. The displayed picture rotates 90 degrees to the left or right depending upon the button pressed. To continue rotating the picture keep, pressing the direction button.
3. To resume normal functioning of the direction buttons, press **ENTER**.

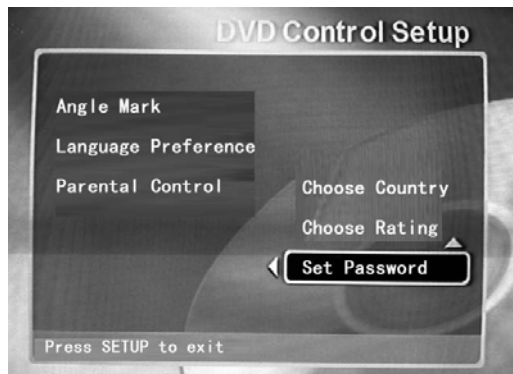
## Special Features

### Parental Controls

Use the **Parental Control** and **Choose Rating** functions in the **DVD Control Setup** menu to block playback of DVD disks that are not within the parental settings chosen. From the **Setup Menu** select **DVD Controls** then **Parental Controls**. The factory default password is 3308. In order to use a new password, the default password must first be entered. A new password comprised of a mixture of letters and numbers (ex. GB28MN0) works best.

**NOTE:** *If you decide to use passwords, keep a written record of them! Keep the password list in a safe place in your home, preferably something with a lock on it.*

Press the **ENTER** button on the remote to both enter the default password, and to select each letter and/or number when creating your new password.



**Figure 19. Invoking Parental Controls and Password Protection**

## Helpful Hints

If you are having problems with your product, check this list of problems and possible solutions before requesting service. You may be able to solve the problem yourself.

If you need to call a customer service representative, please know the model number and serial number of your product before you call. This information is on the rear of the product. Also, please take a moment to identify the problem you are having, and be prepared to explain this to the representative. If you believe the representative will need to help you with operations, please stay near the product. Our representatives will be happy to assist you.

### No Power

- Press the On/Off switch on the front of the DVD Recorder to turn on the DVD Recorder.
- Connect the supplied power cord securely to the AC power jack on the rear of the DVD-Recorder. Connect the power cord firmly to an AC power outlet. Use only the supplied power cord.
- Make sure the AC outlet has power by trying another appliance in the same outlet.

### No Picture

- Make sure the TV power is on.
- Check the video cables. Make sure the cable(s) are fastened securely to the Recorder and the TV.
- Set your TV to the correct Video In channel. These channels are usually near channel 00. Or, you may have a button on the TV remote control that selects an Auxiliary or A/V IN channel. See your TV owner's manual for details. Or, change channels at the TV until you see the Recorder's background picture on the TV screen. You only need one video connection between the DVD Recorder and the TV.

### Distorted Picture

- Check the disc for fingerprints. Clean the disc with a soft cloth, wiping from the center to the edge in a straight line.
- Sometimes a small amount of picture distortion may appear. This is not a malfunction. The picture is distorted; the picture is black and white during playback.
- TVs have a color system standard, usually NTSC in the United States. If the disc's color system is different than your TV's color system, the picture may be distorted or colorless.

The Recorder cannot record in color if the TV channel or source is not providing color. In some situations, programs that are broadcast in black and white cannot be recorded.

### Distorted Sound During Playback Through A Stereo

- Do not connect any cables from the DVD-Recorder to the Stereo's "PHONO IN" jack.
- Do not connect a digital jack on the Recorder (DIGITAL AUDIO OUT - OPTICAL or COAX) to an analog jack on the Stereo. (Analog audio jacks are usually labeled as such and are usually red and white.)

### No Sound

- Check the audio connections. Remember, you only need one audio connection. Make sure cables are connected firmly to all equipment.
- Select another channel, sound source, or Auxiliary station at your Stereo or TV. See your Stereo's manual or TV's manual for details. Or, just continue selecting the different sound sources or modes on the Stereo or TV until you hear sound from the disc that is in the DVD-Recorder.
- Check your Analog output settings or Digital output settings. Make sure you choose the right setting; based on what equipment you connected to the DVD Recorder.

Make sure your Analog output settings or Digital output settings match the capabilities of your Stereo Receiver or TV.

## Technical Specifications

General Specification	Operating voltage		AC 120~ /60Hz
	Power consumption		≤45W
	Weight (approx.)		9.92 lbs.
	Dimensions		2.16" H x 17.06" W x 11.82" D
	Operating Temperature		+2℃~+40℃
Player	Color System		NTSC
	Frequency Response		20Hz~20kHz ±2.5dB
	Audio S/N Ratio		≥ 85dB (1kHz)
	Audio Distortion + Noise		≤ -70dB (1kHz)
	Channel Separation		≥ 70dB (1kHz)
	Dynamic Range		≥ 80dB (1kHz)
	Output	Analog Audio Output	Voltage: $2V \pm_{1.0}^{0.2}$ , Impedance: 10K Ω
		Digital Audio Output	Voltage: 0.5Vp-p, Impedance: 75 Ω
		Video Output	Voltage: 1Vp-p±0.2, Impedance: 75 Ω Unbalanced Negative
		S-Video Output	Voltage: Y: 1Vp-p, C: 0.286Vp-p, Impedance: 75 Ω
		Component Output	Voltage: 0.7Vp-p, Impedance: 75 Ω
	Input	Composite Video In	Out Level: $1V_{P-P} \pm 0.2$ , Load: 75 Ω Unbalanced Negative
		S-Video In	Out Level: Y: $1V_{P-P}$ , C: $0.286V_{P-P}$ Load: 75 Ω
		RF Signal Input	Out Level: Y: $1V_{P-P}$ , Load: 75 Ω

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