IMPORTANT SAFETY INSTRUCTIONS

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

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT IN OUTLET AND ENSURE PLUG IS FULLY INSERTED.

CAUTION
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

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

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

CAUTION:
THIS DVD VIDEO RECORDER IS A CLASS 1 LASER DEVICE. USE OF CONTROLS, ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT ATTEMPT TO REPAIR THE UNIT YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

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.
IMPORTANT SAFETY INSTRUCTIONS

Caution

READ THE SAFETY AND OPERATING INSTRUCTIONS before operating your DVD video recorder and retain the instructions for future use.

FOLLOW INSTRUCTIONS AND HEED ALL WARNINGS on the DVD video recorder and in this manual.

Installation

1. The power supply of this DVD recorder is AC100~240V, 50/60Hz, please don’t use incorrect power outlets. If you are unsure of the power supply voltage, please ask your local electricity company.

2. Please connect the power plug only to a proper outlet. If the plug does not fit, ask a qualified electrician to replace your obsolete outlet. Please do not modify the plug yourself. To do so will void this safety feature.

3. Arrange cords so that they will not be stepped on or pinched by anything placed on or against them. Especially be careful at plug-ins, receptacles, or cord exit points from the DVD video recorder. Frayed power cords or damaged plugs are hazardous, please ask a qualified service technician to replace your power cord in any of these cases. Overloaded power outlets and extension cords may cause fire or electrical shock hazards.

4. Do not cover or block the ventilation holes in the DVD video recorder cabinet. Doing so may damage the DVD video recorder or DVD video disc. Do not place your DVD video recorder on a soft surface, the ventilation holes can be blocked from the bottom. Avoid placing it in a small space such as a bookshelf unless ventilation is adequate.

5. Avoid placing the DVD video recorder in an environment with excessive humidity, sudden temperature changes, or extreme hot or cold temperatures. Otherwise, condensation may form inside the unit.

6. To avoid accidental damage or injury, please place your DVD video recorder on a stable and flat surface with no vibration; do not put any heavy objects on top of it. Please use with a sturdy stand or table recommended by the manufacturer only; and follow all the instructions regarding the use of stands or tables.

7. Use care when moving the DVD video recorder on a cart. A sudden stop, excessive force or uneven surface may cause the cart to overturn.

8. Do not use any accessory that is not recommended by the product manufacturer.

9. Unplug this product from the wall outlet and contact Customer Care immediately under the following conditions:
   a) When the power cord or plug is damaged.
   b) If any liquid is spilled on, or object has fallen into the product.
   c) If the product has been exposed to rain or water.
   d) If the product does not operate normally when you follow the instructions in the user manual.
   e) If the product has been dropped or damaged in any way.
10. The product should be placed well away from any heat source such as a radiator, heater, stove, or any electrical home appliance that produces heat.

**Operation/Cleaning**

1. Keep your DVD video recorder away from strong magnetic objects.
2. Keep your DVD video recorder away from humid locations, such as bathtub, sink, laundry, humid basement, or swimming pool.
3. Use only with accessories recommended by the manufacturer in order to avoid fire, shock or other accident.
4. If your DVD video recorder is exposed to rain, placed in a wet area or struck by a strong impact, please unplug it immediately and contact Customer Care before turning it back on.
5. To protect your DVD video recorder during a thunder storm, or when it won’t be used for a long period of time, please unplug it from the power outlet and disconnect the cable system. This will prevent possible damage to the product from lightning or power surges.
6. Unplug your DVD video recorder before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluid or aerosol as they may cause damage, fire, or electrical shock if the liquid runs into the recorder. Those materials may also tarnish the coating of your DVD video recorder.
7. Never open or remove the cover or make any adjustment which is not described in the user manual as it may expose you to an electrical shock or other hazardous situation, or cause serious damage to your DVD video recorder. Your DVD video recorder must be serviced by a qualified technician only.
8. Keep any liquids or any unnecessary objects away from your DVD video recorder. Never turn on your DVD video recorder if any liquid or small metal object has entered the unit, or an electrical short, fire or electrical shock may result. In this case, please unplug your DVD video recorder immediately and contact Customer Care.
9. Remove the plug from the power outlet before cleaning. Use a damp cloth. Please don’t use cleaning liquid or aerosol. Don’t allow liquid to drip into the recorder, it may cause fire or electric shock. Cleaning fluids will erode the surface.
10. Power cord:
   • Always hold the plug when removing the power cord. Do not pull the cable.
   • Don’t touch the power cord with a wet hand, it may lead to a short on circuit or you may get an electric shock.
   • Don’t let items rest on the power cord.
   • Don’t tie or knot the power cord.
   • Take care that the power cord is not tripped over or stepped on.
11. When the recorder is temporarily not in use, set the power to stand-by. If the recorder won’t be used for an extended period, remove the plug from the power outlet.
12. **Emergency**
   • If the following occurs, unplug the unit and contact Customer Care immediately:
     • If liquid or metal drops into the unit.
     • If an abnormal playback status appears.
Service
1. Do not attempt to fix this DVD video recorder yourself, please unplug it and contact Customer Care.
2. Make sure the technician uses manufacturer-recommended parts for replacement. Substituted may cause fire, electrical shock, or other hazardous situations.
3. Be sure the technician performs a complete safety check to ensure your DVD video recorder can be operated safely.

Laser Radiation
1. Please obey all operating instructions in this manual to avoid radiation damage.
2. The laser light in this machine can damage human eyes. Please don’t open the case. If the unit needs service, please contact Customer Care.

Condensation Warning
Condensation may form on the pickup lens under the following conditions.
- When a heater is turned on.
- In a steamy or very humid room.
- When the unit is suddenly moved from a cold to a warm environment.
If condensation forms inside the unit, it may not operate properly. If you suspect that condensation has formed in the unit, turn off the power and wait approximately one hour for condensation to evaporate.

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

1. Take out the disc as shown to the right. Hold the edge and center of the disc. Don’t touch the varnish side as this may damage the information on the disc.

2. Don’t put stickers or labels on the disc surface. This will cause a weight bias on the disc and lead to abnormal playback.

3. Please don’t scratch or spot the varnish side.

4. The rotational speed of the disc is very high. Please don’t use any broken, scratched, cracked or bent disc or it will damage the DVD recorder.

5. Disc cleaning
   Finger prints or dirty spots on the disc will reduce the reflection, which will lead to a poor signal. With a poor signal, the playing performance will decrease. Please use a soft cloth to wipe the disc straight from center to the outer edge. If the disc is too dirty, you can use a damp soft cloth to wet the disc first, and then wipe it with a dry soft cloth.
   Never use cleaning liquid, methylbenzene, diluted formula, anti-static liquid or other solution for disc cleaning; it may damage the surface of the disc.

6. Storage of the disc
   • Put the discs in the original box to prevent bending or other damage to the disc.
   • Don’t put the discs in areas with high temperature, high humidity or in direct sunlight.
   • Please read any instructions on the disc label carefully.
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User’s Manual
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THANK YOU...

...for Choosing This Product!

Welcome to the latest in television technology. Your new DVD recorder features easy-to-use, on-screen menus and closed caption capabilities – all in a space-saving design. Quite simply, you’ve selected one of the best products in its class. We are proud to offer a DVD recorder that will bring you convenient, dependable service and enjoyment for years to come.

This manual is provided to help you set up your DVD recorder and take advantage of its many features.

Keep this manual in a safe place for future reference. Record your product model number and serial number here, for use in event of loss or theft.

Model number:

Serial number:

Features

• This DVD recorder can play in NTSC and PAL under progressive or interlace scan output.
• This unit can be connected with a Dolby Digital or DTS compatible amplifier / receiver for home theater surround sound.
• Record cable or broadcast TV signal through the antenna, or record video and audio from an external input such as a DVD player or VCR.
• Schedule up to 8 separate recordings.

Package Contents

• Remote control (includes 2 AAA batteries)
• Power Cord
• TV antenna cable
• Blank DVD+RW disc
• Video signal cable (composite, yellow connector)
• Component video cable (green, blue, and red connectors)

• User manual / Quick manual
Compatibility

- Recordable Disc Types
  This unit can record to DVD+R and DVD+RW discs. Recorded discs may not be playable on all conventional DVD players.
- Playable Disc and Media Types

Recommendations for Optimal Picture Quality
The unit is a precision device which is manufactured with highly accurate technology. Fingerprints or friction on the disc will affect reading from the laser pickup lens, and it will ruin the image quality. In the worst case scenario, neither video nor audio will be played from a dirty or scratched disc. To obtain optimum picture quality, the recorder should be cleaned after every 1,000 hours of use. Please note that this period may vary depending on the environment (temperature, humidity, dust, etc.). Please contact your supplier for details.

Copy Protection
This DVD video recorder supports Macrovision copy protection. This will prevent copy-protected materials from being recorded normally.

Copyrights

- Copyright
  The law prohibits copying copyrighted material without the permission of the owner of the copyright.
- Copy protection
  If you attempt to copy a DVD disc with CSS (Content Scrambling System), a DVD copy protection code, the anti-copy protection function of your DVD recorder will be started to prevent illegal copying.

Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.
DTS and DTS Digital Surround are registered trademarks of Digital Theater Systems, Inc.
Panels and Connections

Front Panel

**VIDEO:** Composite video in for recording from external video equipment such as a camcorder.

**AUDIO L/R:** Standard stereo sound connections for recording from external equipment such as a camcorder. “L” stands for “left” and “R” stands for “right”.

Rear panel

1. **POWER CORD SOCKET.**
2. **ANTENNA:** Connect cable or TV antenna to “IN” and your TV to “OUT”.
3. **VIDEO IN / AUDIO IN:** These jacks are the same as the ones on the front of your DVD recorder. Use them to connect to another video device that you wish to record, such as a DVD player or VCR.
4. **S-VIDEO:** For connecting to a TV or monitor’s S-Video input jack.
5. **VIDEO OUT:** Video signal output.
6. **COMPONENT VIDEO OUT:** Component signal output, for connection with a component (Y/CB/CR) or progressive scan (Y/PB/PR) device.
7. **AUDIO OUT:** Analog audio output.
8. **DIGITAL:** Digital audio signal output connector for use with a Digital Audio Receiver/Audio DA Converter.
Basic (Composite) Connection

Before changing or connecting any cables, please make sure all devices are turned off to avoid any electronic discharge that may damage the unit.

This chart shows the basic connections necessary for using your DVD recorder with a TV. Other types of connections are shown on the following pages. Before you get started, we recommend that you assess all of the equipment that you would like to connect and review the following pages closely.
This DVD recorder is equipped with a standard composite (AV) video connection, S-Video connection, and component (YPBPR/ YCBCR) video input. Component provides the best picture signal, but is not available on all TVs. S-Video provides excellent quality, but not as good as component. Composite video provides good video quality, but it is not as good as S-Video or component.

Choose the best way to connect devices depending on your particular equipment.

For a basic (composite) connection, please follow the steps below using the diagram to the left as a guide.

1. Use the supplied AV cable (red, white, and yellow connectors) to connect the DVD recorder to your TV's AV input jacks.

2. Connect one end of the provided TV antenna cable to ANTENNA OUT on the DVD recorder. Connect the other end to the antenna (RF) input on your TV.

3. Use another TV antenna cable to connect the TV antenna or CATV coaxial cable from your wall outlet with ANTENNA IN on the DVD recorder.

4. Connect the power cord to an easily accessible AC outlet.

Please note that unlike some VCRs, the DVD recorder will not use the TV antenna connection to carry sound and video to your TV, although it will pass through the broadcast or cable signal provided by that connection. You must make a separate audio and video connection in order to watch DVDs played on your DVD recorder on your TV.
Other TV Connections

S-Video and Component Video connections carry only the video signal, not audio. To hear sound when using either of these connections, you will also need to make a separate audio connection. You can do this by connecting the red and white portions of the AV cable but NOT the yellow portion. This will play stereo sound through your TV (if your TV is capable of producing stereo sound). You can also follow the instructions on the following pages to connect your DVD recorder to an AV amplifier/receiver to send sound to external speakers.
panels and connections

1  S–Video
Connect one end of the S–Video cable to one of the S–Video connections on the back of the DVD recorder, and connect the other end to the S–Video In jack on your TV.

2  Component Video
Connect the component cable (green, blue, and red connectors) to the COMPONENT VIDEO OUT on the rear panel of the DVD recorder and the corresponding component video in connections on your television. Make sure to match the colors on the cable connectors with the colors on the ports.

Connect EITHER the S–Video OR the Component Video cable to your TV. Not both.
panels and connections

AV Amplifier/Receiver Connection

The following connections are shown as an example only. Please choose the correct connections for your equipment. For example, you should use either an analog or a digital audio connection – not both. If you are using a digital connection, you should use either optical or coaxial – not both.

Digital Audio

1a For an optical connection, connect an optical cable (also referred to as Toslink) to OPTICAL DIGITAL OUT on the DVD recorder and OPTICAL DIGITAL IN on the AV Amplifier or TV.

1b For a coaxial connection, connect a coaxial digital audio cable to COAXIAL DIGITAL OUT on the DVD recorder and COAXIAL DIGITAL IN on the AV Amplifier or TV.

Analog 5.1 Audio

2 For analog audio, connect analog AUDIO OUTPUT and VIDEO OUTPUT on your DVD recorder to analog AUDIO INPUT and VIDEO INPUT on your AV Amplifier or TV.

Optical and coaxial digital audio cables sold separately.

FR: Front right speaker. Placed in front of the listener to his or her right.

Center: Center speaker. Placed directly in front of the listener.

SR: Surround right speaker. Placed behind the listener to his or her right.

SL: Surround left speaker. Placed behind the listener to his or her left.

SUB: Subwoofer. This speaker carries low frequency sounds and can be placed anywhere in the room as long as it is close to the ground.

FL: Front left speaker. Placed in front of the listener to his or her left.
panels and connections

Connect to Other Video Inputs

Connect a Camcorder

To record from a camcorder, connect the AUDIO/VIDEO OUTPUT from the camcorder to the DVD recorder's AUDIO/VIDEO INPUT on the front panel.

Connect a VCR or DVD Player

To record from a VCR or general DVD player, connect the AUDIO/VIDEO OUTPUT from the VCR or general DVD player to the AUDIO/VIDEO INPUT of the DVD recorder.

Do not connect your DVD recorder to a VCR and then connect the VCR to the TV. This will produce a very poor signal for your DVD recordings. Your DVD recorder should be connected directly to the TV for best results.
panels and connections

**Tips**

1. Most cables and AV connectors on your equipment follow a standard color code. Observing this color code can be very helpful when connecting your AV equipment.
2. We have provided many different options for audio and video connections so that you can choose the best for your needs. However, you only need one video connection and one audio connection between your DVD recorder and your TV.
3. If your antenna/CATV connection is attached to your DVD recorder, and your DVD recorder is attached to your TV with another antenna cable, you will be able to watch TV without turning on your DVD recorder.
4. Attaching your DVD recorder to a VCR and then attaching the VCR to the TV will produce very poor quality video and recordings. The DVD recorder should be attached directly to the TV.
CONTROL BUTTONS AND DISPLAY

1. **STANDBY/ON**: Puts the unit in and out of standby mode.
2. **DISC TRAY**
3. **OPEN/CLOSE**: Opens and closes disc tray.
4. **PREV**: Jump to the previous chapter.
5. **STOP**: Stop playback/recording.
6. **PLAY**: Plays the current disc.
7. **NEXT**: Jump to the next chapter.
8. **RECORD**: Record currently playing channel/video.
9. **DISPLAY WINDOW**: Shows current status of DVD recorder.

Display Window

1. Dolby Digital sound display
2. DTS sound display
3. Title: Display the current title (DVD)
4. Track: Display the current track (VCD)
5. Chapter: Display the current chapter
6. The selected song in program
7. External input for recording
8. Start scheduled recording
9. Title in repeat play
10. A to B repeated playback
11. Channel from external AV amplifier
12. Display the disc type: DVD, VCD, MP3
13. Playback in progress
14. Play/record is currently paused
Remote Control
Before using the remote control, put 2 AAA batteries into the battery compartment. Please make sure the +/- terminals are placed correctly, following the instructions printed in the battery compartment. Point the remote control at the remote receiver on the DVD recorder.
## Remote Control Buttons

1. **STANDBY/ON** Puts the unit in or out of standby.
2. **CH **  
   Choose the previous or next TV channel.
3. **VOL **  
   Adjust the volume of analog audio output.
4. **SETUP** Open setup menu (see page 33).
5. **RETURN** When playing in VCD mode, press this button to return to the previous menu.
6. **CM SKIP** Skip about 30 seconds of playback time on a DVD (a typical TV commercial length).
7. **QUALITY** Choose the quality of recording (see page 40).
8. **RECORD** Record the current channel.
9. **SOURCE** Change to an external input signal for recording (see page 41).
10. **PLAY**  
    Start playing the disc.
11. **PAUSE**  
    Pause playback.
12. **PREV**  
    Jump to the previous chapter.
13. **NEXT**  
    Jump to the next chapter.
14. **DIGEST** This button allows you to view JPEG CDs and some VCDs in a thumbnail mode with nine small images per screen (see page 30).
15. **SUBTITLE** When playing a DVD with multiple subtitle languages, this button toggles languages or disables the subtitle function (see page 30).
16. **ZOOM** Zooming mode in playback. (please refer to page 31).
17. **1/2/3...** For menu, song selection or for time, password input.
18. **CLEAR** Press clear to erase the last number entered.
19. **+10** Plus ten key. To enter “20”, push +10 twice then the 0 button.
20. **NTSC/PAL** Cycle between normal NTSC, NTSC progressive scan, and PAL (see page 32).
21. **PROGRAM** Program playback of the disc (see page 29).
22. **EDIT** When used with DVD+RW discs, this button shows the edit menu where you can erase titles and chapters (see page 43).
23. **BOOK MARK** Bookmark memory setup (see page 32).
24. **DISPLAY** Show status on screen (see page 26).
25. **ENTER** Confirm selection of an item in the setup menu.
26. **STEP**  
    Step (frame by frame) playback (see page 25).
27. **STOP**  
    Stop playback.
28. **FWD**  
    Fast forward.
29. **TITLE** Display title menu of a DVD (see page 30).
30. **MENU/PBC** Accesses available DVD (see page 30) or VCD PBC (see page 31) menus.
31. **A-B** Loop playback between two points (see page 28).
32. **SLOW** Slow-motion forward/reverse playback (see page 25).
33. **AUDIO** If a DVD has more than one audio language, this button can select a language for playback.
34. **MUTE** Cut out the analog sound output.
control buttons and display

- Please don’t use different brands or types of batteries together. Don’t use a new and an old battery together.
- If you find the remote distance is reduced, please change both batteries at the same time.
- If the DVD recorder won’t be operated for an extended period, remove the batteries from the remote control. Otherwise the remote control may be damaged.
- Don’t place the remote control in areas with high temperature or high humidity.
- Don’t open the case of the remote control.
Basic Playback Functions

Preparation:
- See pages 12–17 for connection diagrams.
- Connect the DVD Recorder to the TV, turn on the TV power, and select the proper input on your TV (e.g., “AV”).
- If connecting to an audio system, please turn the audio system on and make sure that it is connected correctly.
- The first time you power on this DVD recorder, please follow the on-screen instructions.
- Please note that an LED indicator will show when the unit is in standby (off) mode.

Primary Settings

This DVD recorder can be set easily by using the buttons. To make selections, move the yellow highlight bar to the desired item with the navigation buttons and then press ENTER to confirm.

1. When the DVD recorder is turned on for the first time, the TV screen shows the following message:

   Choose English menus
   De Choose German menus

   Press<ENTER> to continue

   Press the direction keys to choose the menu language, then press ENTER to confirm.

2. Time and date:

   Please set the time and date:

   AM/PM HH:MM AM 00:00
   MM/DD/YY 00/00/00

   Completed

   Use the direction keys to move the cursor. Use the direction keys to change to the correct the numbers. When you are finished setting the time and date, highlight “Completed” and press ENTER to confirm.

3. Selection of input signal:

   Please select signal type:
   Cable
   Antenna
   Skip

   Use the direction keys to select the signal input source. Press ENTER to confirm or select “Skip” to complete this setting later.

   The DVD recorder auto-searches the selected signal type to find channels. When finished, the screen shows:

   Channel searching done!

   To exit press <ENTER> key

4. Press ENTER to exit setup.
basic playback functions

Start Playback

1. Press OPEN/CLOSE ➧ to open the disc tray.
2. Put the disc on the disc tray in the proper position and then close the disc tray
3. Press the PLAY ► button to play the disc.

Some menu selections work only while the disc is being played.

In PBC playback on VCD, a PBC displays on the screen.

If there is no PBC function on VCD/CD, the disc plays immediately.

Skip Playback

DVD
Press NEXT► to skip to the next chapter.
CHAPTER 1 ➤ CHAPTER 2

Press PREV◄ to skip to the beginning or previous chapter.
CHAPTER 2 ➤ CHAPTER 1

VCD/Audio CD
With PBC on:
During VCD playback, press TITLE to bring up the PBC menu.
PLAYING ➤ VCD PBC MENU

With PBC off:
Press NEXT► or PREV◄ to skip to the next or previous section on a CD.
Pause/Step
Except for movies on CD, videos can be played frame-by-frame.
1. Press **PAUSE** to pause the picture. While paused, press **STEP** to advance to the next frame.
2. Press **PLAY** to resume normal playback.

Fast Forward/Rewind

**DVD**
1. Press **FWD** or **REV** to speed up playback. Pressing the button multiple times cycles through the following speeds: 2x > 4x > 8x > 16x > 30x > 60x.
2. Press **PLAY** to resume normal playback.

**VCD/Audio CD**
1. Press **FWD** or **REV** to speed up playback. Pressing the button multiple times cycles through the following speeds: 2x > 4x > 8x > 16x.
2. Press **PLAY** to resume normal playback.

- While rewinding or fast forwarding, you will not be able to hear the audio portion of the track.

Slow Motion
1. Press **SLOW** to slow down playback. Pressing the button multiple times cycles through the following speeds: 1/2 > 1/4 > 1/8.
2. Press **PLAY** to resume normal playback.

- During slow-motion play, you will not be able to hear the audio portion of the track.

Stop
Press **STOP** while playing a disc to temporarily stop (pre-stop) playback.
Press **PLAY** to resume play from the point where playback was stopped, or press **STOP** again to stop playback completely.

If you are finished using the DVD recorder, take out the disc and press **STANDBY/ON** to turn the unit off.
**Disc Playback OSD**
*(On Screen Display)*

The OSD provides useful information about the disc that is currently being played, as well as quick access to commonly used menus.

**DVD Playback OSD**

Press **DISPLAY** on the remote control to show the following OSD information:

<table>
<thead>
<tr>
<th>Title</th>
<th>Chapter</th>
<th>Time Counter</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 001</td>
<td>C 001</td>
<td>00:00:00</td>
</tr>
</tbody>
</table>

**Audio channel selection**

1/1: AC-3 Stereo English

---

**Subtitle selection**

1/2 English

**Random playback**

1/2 Normal

**Repeat playback**

1/4 Off

1. Not all of the OSD options appear on your screen at once. Use the ‹› buttons to move between display options, and to access the OSD options that are not currently shown on your screen.
2. Press **ENTER** to select the item that you would like to change. The menu item will turn yellow to indicate that you can change the settings.
3. Use the ‹› buttons to cycle through the available options. When the menu displays the option that you would like to select, press **ENTER** to confirm the setting. The menu item will turn white to show that your change has been entered.
4. Press **DISPLAY** again to exit the OSD display.

**Title:** If there are multiple titles on the DVD, this menu allows you to jump directly to a desired title.

**Chapter:** If there are multiple chapters on the DVD, this menu allows you to jump directly to a desired chapter.

**Time Counter:** The time counter allows you to begin playback at a specific point of time on the DVD.

**Audio Channel Selection:**

This allows you to set the audio language for playback. The languages available depend on the disc. Not all discs have multiple audio languages. You may need to use the disc menu to change audio languages – this depends on the design of the disc.

**Subtitle Selection:**

This allows you to set the subtitle language for playback. The languages available depend on the disc. Not all discs have multiple subtitle languages. You may need to use the disc menu to change subtitle languages – this depends on the design of the disc.

**Random Playback:**

When available, this menu allows you to choose between normal and random(shuffle) playback.

**Repeat Playback:**

This menu allows you to choose between repeat playback settings. Please see the “Advanced Playback Functions” for more information about setting a disc to repeat.
VCD/Audio CD Playback OSD

Press DISPLAY on the remote control to show the following OSD information:

<table>
<thead>
<tr>
<th>Title</th>
<th>Time Counter</th>
<th>Audio channel selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>00:00:00</td>
<td>1/3: Stereo</td>
</tr>
</tbody>
</table>

Random playback

- 1/2 Normal

Repeat playback

- 1/3 Off

PBC On/Off

- PBC On

1. Not all of the OSD options appear on your screen at once. Use the buttons to move between display options, and to access the OSD options that are not currently shown on your screen.
2. Press ENTER to select the item that you would like to change. The menu item will turn yellow to indicate that you can change the settings.
3. Use the buttons to cycle through the available options. When the menu displays the option that you would like to select, press ENTER to confirm the setting. The menu item will turn white to show that your change has been entered.
4. Press DISPLAY again to exit the OSD display.

**Title:** If there are multiple titles on the DVD, this menu allows you to jump directly to a desired title.

**Time Counter:** The time counter allows you to begin playback at a specific point of time on the DVD.

**Audio Channel Selection:** This allows you to set the audio language for playback. The languages available depend on the disc. Not all discs have multiple audio languages. You may need to use the disc menu to change audio languages – this depends on the design of the disc.

**Random Playback:** When available, this menu allows you to choose between normal and random (shuffle) playback.

**Repeat Playback:** This menu allows you to choose between repeat playback settings. Please see the “Advanced Playback Functions” for more information about setting a disc to repeat.

**PBC On/Off:** Some VCDs have complex PBC menus. This menu allows you to turn the PBC functionality on or off. Your DVD recorder is easiest to control with the PBC function set to “Off”.

Repeat Playback
Repeat playback lets you select a section of your disc to play in an endless loop.

**DVD**
1. Press **1/ALL** on the remote control to access the repeat function.
2. Press **ENTER** to enter select mode, then use the **↑↓** buttons to select how much of the DVD you would like to repeat:
   - No repeat
   - Repeat current chapter
   - Repeat current title
   - Repeat entire disc
3. Press **ENTER** to confirm your selection. Press **1/ALL** again to exit.

**VCD/Audio CD**
1. Press **1/ALL** on the remote control to access the repeat function.
2. Press **ENTER** to enter select mode, then use the **↑↓** buttons to select how much of the DVD you would like to repeat:
   - No repeat
   - Repeat current track
   - Repeat entire disc
3. Press **ENTER** to confirm your selection. Press **1/ALL** again to exit.

A-B Repeat Playback
A-B repeat playback allows you to define a specific section of your disc to be played in an endless loop.
1. Rewind or fast forward your disc to the beginning of the section you want to repeat.
2. Press the **A-B** button to set up a start point (A). The on screen display shows:
   - A
   - B
3. Fast forward or play to the end of the section you would like to repeat.
advanced playback functions

4. Press A-B again to set the end point. The OSD shows:

\[ \text{A} \quad \text{B} \]

and the playback between your defined points begins.

3. Press the A-B button a third time to resume normal playback. No OSD is shown.

Shuffle

Shuffle is only available during VCD (PCB off) or CD-DA playback.

1. Press SHUFFLE to play the songs on a disc in a random order. The TV screen shows as follows:

<table>
<thead>
<tr>
<th>NORMAL PLAYBACK</th>
<th>RANDOM PLAYBACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 Normal</td>
<td>2/2 Random</td>
</tr>
</tbody>
</table>

2. Press ENTER to enter select mode, then use the \[ \text{ } \] \[ \text{ } \] buttons to make a selection.
3. When in shuffle mode, the OSD shows continuously on the screen.
4. Press SHUFFLE again to resume normal playback, no OSD shows on the screen.

Program Playlists

Programmed song playback can be used on ISO files, CD-DA or VCD (with PBC off) only.

CD-DA, MP3, JPEG, VCD Program Playback

1. Place your disc in the recorder. The recorder will automatically play the first file. Press STOP.
2. Press PROGRAM to enter the PROGRAM LIST screen (shown to right). The top window shows the tracks on your disc, and the bottom window shows the tracks in your playlist.
3. Use the \[ \text{ } \] \[ \text{ } \] buttons to select the desired song (file) then press ENTER to confirm your selection.
4. When you are finished with your playlist, use the \[ \text{ } \] \[ \text{ } \] buttons to highlight PLAY at the bottom of the screen. Press ENTER and the recorder will play your programmed list.
5. If you press STOP, your programmed songs (files) will remain programmed.

Cancel Programmed Playback

1. Choose CLEAR ALL to remove all programmed songs (files) from your playlist. This does not affect the songs or files on your disc.
2. Press PLAY to resume normal normal playback.
Display JPEG Photos
When a disc with JPEG files is put into the recorder, it automatically plays the pictures as a slideshow. Press STOP to end the slideshow and enter the track list scene at any time. Then you can use the buttons to choose a picture and press ENTER to show it in full screen mode.

Digest
The digest screen can show 9 thumbnail pictures on your screen at once. It can help you to find a picture quickly.
1. Press DIGEST to enter the digest screen.
2. Use the buttons to choose a picture and press ENTER to show the picture in full screen mode.
3. Move the cursor to and press ENTER to jump to the previous page of thumbnails. Move the cursor to and press ENTER to jump to the next page of thumbnails.

Title Playback
(DVD only)
Some DVDs have a title menu that can be accessed using the TITLE button on your remote control.
1. While a DVD with a title menu is playing, press TITLE.
2. Use the buttons to select a title and press ENTER to confirm.

DVD Menu
(DVD only)
Some DVDs have complex content with many subtitle languages, audio languages, video angles, etc. The DVD menu can be used to access these features.
1. If the disc contains a DVD menu, press MENU/PBC to show the menu on the screen.
2. Use the buttons to make a selection and press ENTER to confirm.

Playing Multiple Angles
Some DVDs have multiple angle video segments.
1. When a DVD section with multiple view angle is playing, the screen shows:
2. While this icon is showing, press ANGLE to cycle through the available viewpoints.

Change Subtitle Language
When playing a DVD with more than one subtitle language, press SUB-T to change or cancel subtitles.
1. Press SUB-T to cycle between available subtitle languages and subtitles off.
2. The screen shows the subtitle language's number. Press ENTER to confirm. Press SUB-T again to hide the subtitle message.

Some subtitle languages can be only be selected from the DVD menu and can not be changed with the SUB-T button. Subtitle availability depends on the design of the DVD.
Change Audio Language
If a DVD has more than one audio language, press AUDIO to change between them.
1. Press AUDIO to cycle through available audio languages.
2. The screen shows the audio language’s number. Press ENTER to confirm your selection. Press AUDIO again to hide the screen message.

Some audio languages can be only be selected from the DVD menu and can not be changed with the Subtitle button. Audio language availability depends on the design of the DVD.

Direct Selection
When a DVD, VCD or Audio CD is playing, press the numeric keys on the remote control to jump directly to a specific chapter or song for playback.
To enter double-digit numbers, press the +10 button. For example, to enter “32” press +10, then 3, then 2.

PBC Playback Control
Only VCDs edition 2.0 or above have this function. Different VCDs will have different PBC functions, depending on the design of the disc. Please refer to the instruction manual for the disc for more information.
1. Press MENU/PBC to turn on/off the PBC function. The OSD shows “PBC on” or “PBC off”.
2. If the VCD has a PBC menu, press PREV and NEXT to change pages in the menu.
3. In PBC menus, all selections must be made with the numeric buttons.
4. When playing VCD 2.0 edition discs, set PBC to “off” for optimal operation.
5. When PBC is on, press TITLE to enter the PBC menu.

Zoom
1. When playing a DVD or VCD, press ZOOM to cycle through the zoom settings: x2 > x4 > x8 > normal.
2. An inset screen in the upper left corner shows the entire viewable area.
2. While zoomed, use the buttons to move the zoomed portion within the viewable area.
**Bookmark Memory**

This unit supports 5 separate stored bookmarks for the disc currently in the DVD recorder. When you remove the disc from the recorder, the bookmarks are lost.

**Create Bookmark**

1. While playing a disc, press **BOOKMARK** at the point you wish to bookmark. The Bookmark menu shows on screen as follows:

```
[ ] [ ] [ ] [ ] [ ]
```

2. The five lines indicate the five slots that the unit has for memory. A number indicates that a bookmark is stored in that slot. If there is nothing above the line, then there is nothing stored in that slot.
3. Use the ▶ button to move to an empty slot.
4. Press ENTER to memorize the present point as a bookmark. A number will appear in the bookmark space, indicating that you have successfully stored the bookmark.

```
[ ] [ ] [ ] [ ] [1]
```

5. Press **BOOKMARK** again to exit the bookmark menu.

**Jump to Bookmark**

1. Press **BOOKMARK** to enter the bookmark menu.
2. Use the ◀ ▶ buttons to select a bookmark.
3. Press ENTER to start playback from that bookmark point.

**Clear Bookmark**

1. Press **BOOKMARK** to enter the bookmark menu.
2. Use the ◀ ▶ buttons to select a bookmark.
3. Press CLEAR to erase the selected bookmark from memory.

**NTSC/PAL and Progressive Scan**

The NTSC/PAL button cycles between normal NTSC, NTSC progressive scan, and PAL viewing modes.

**PAL/B** is the TV-standard for TV broadcasts used in Singapore.

**NTSC Progressive Scan** can be used with a component connection to a TV that supports progressive scan to watch DVD movies at a higher resolution.

**NTSC** is the TV-standard for North America and other areas. If you select NTSC, Singapore movies and television programs in Singapore will appear incorrectly on your screen.

Please see the glossary on page 51 for more information.
**GENERAL SETUP**

**Entering the Setup Menu**
Press SETUP on your remote control to enter the setup menu.

ℹ️ If you press SETUP during playback, playback will pause. It will resume when you exit the Setup menu.

**How to Setup**
1. Press SETUP to enter the setup menu.
2. Use the ▲▼ buttons to make a selection and press ENTER to enter into the first sub-menu.
3. In the first sub-menu, use the ▲▼ buttons to make a selection. Press ENTER to enter into second sub-menu, or press ‹ to return to the previous page.
4. In the second sub-menu, use the ▲▼ buttons to make a selection and press ENTER to confirm your selection.
5. Press SETUP again to exit the setup menu.

**Setup Menu Structure**
Items in bold are the factory default setting.

1. **Language**
   - **1.OSD**
     - English
     - German
   - **2.Menu**
     - Default
     - English
     - Spanish
     - French
   - **3.Audio**
     - Default
     - English
     - Spanish
     - French
   - **4.Subtitles**
     - Off
     - Default
     - English
     - Spanish
     - French

2. **Video Setup**
   - **1.Aspect Ratio**
     - 16:9 Wide
     - 4:3 Letterbox
     - 4:3 PanScan
   - **2.Channel search**
     - Antenna
     - Cable
   - **3.Add/Del channel**
   - **4.Cable/Antenna**
     - Antenna
     - Cable
general setup

3. Audio Setup  1. Analog Output Surround +5.1
               LR Stereo
               LR Stereo
2. Digital Output D-PCM
               Dolby Digital

4. System Info   1. Date and Time
   2. Parental Controls
1. G
2.
3. PG
4. PG 13
5.
6. R
7. NC 17
8. NO Limit

3. Password
4. Factory Reset Confirm
   Cancel

5. Disc Media  1. Finalize
   2. Erase
   Confirm
   Cancel

6. Recording  1. Record Speed HQ
               SP
               LP
               EP
               SLP
2. Auto Chapter On
   Off

7. Schedule

Language
There are four items for which you can change the language: OSD, MENU, AUDIO,
SUBTITLES.
The OSD (on screen display) can be displayed in English or German.
The Menu, Audio, and Subtitle languages available depend on the disc that you are
playing. If the disc has a default setup for audio language and subtitle language, this
recorder will play them automatically.
Aspect Ratio
The following aspect ratios are available for playback:

16:9 (Wide)
Use this for 16:9 wide screen TV video output.

4:3 (Letterbox)
Use this to display full 16:9 video footage on a 4:3 TV screen. Black bars will appear at
the top and bottom of the screen.

4:3 (Pan Scan)
Use this for watching typical 4:3 TV broadcasts on a 4:3 television. If you do not like the
black bars produced by watching 16:9 video footage in letterbox mode, you can watch
them in 4:3; however, the sides of the image will be cropped to fit your screen.

See instructions on the DVD that you want to play for more information.

Channel Search
You must perform a channel search in order for the DVD recorder to recognize your
broadcast or cable channels for display and recording. If you did not perform a channel
search during initial setup, you can do it here.

Add/Delete Channel
You can delete channels after performing a channel search, or add channels that have
been previously deleted. First move to the channel that you want to add or delete. If
the channel has been previously deleted, you may need to use the numeric buttons to
directly enter the channel number.

If the channel is not already memorized by your DVD recorder, selecting Add/Delete will
add it to the memory. If the channel has already been memorized, then selecting
Add/Delete will delete it from your DVD recorder’s memory.
Audio Setup
In order to play surround sound, the audio setup must be selected correctly and the
DVD recorder has to be connected with an AV Amplifier/ Receiver. You must set the DVD
recorder correctly to ensure the digital audio signal format is compatible with the
amplifier/receiver.

⚠ If you send an incompatible digital signal to an AV Amplifier/Receiver, it may
cause noise from the loudspeaker. This could damage your loudspeakers.

Analog Output
**Surround +5.1:** Use this setting for analog surround sound connections.
**Stereo:** Outputs analog sound in standard stereo (two channel).

Digital Output
Use the following mode to connect the digital sound signal from this recorder to an
external amplifier.
**D-PCM:** D-PCM outputs the same type of format that CDs are usually recorded in. Use
D-PCM for digital sound output in stereo (two channel) as opposed to surround sound.
**Dolby® Digital:** Recorder outputs Dolby® Digital or DTS® digital audio in surround
sound.

Date and Time
Before scheduling any recordings, the time must be set as follows.
1. Highlight **Date and Time** and press ENTER to enter setup.
2. Use the ↑ ↓ buttons to move the cursor, and use the ← → buttons to modify the
time and date.
3. After you have entered the correct time and date, press ENTER to confirm setup. The
screen switches to the previous setup page automatically. Press SETUP again to exit
the setup menu.

Parental Controls
This function allows you to set limits on the content that can be displayed using your
DVD recorder. If this function is on, the DVD recorder will not allow playback of discs
with a rating equal to or higher than the selected rating level. For example, if you select
“PG-13”, then playback of PG-13, R, and NC-17 rated movies will be blocked.

⚠ Please set the password before setting parental controls!

Password
The password menu allows you to set up passwords. In order to enter a new password,
you will first need to enter the original password, and then your new password. Press
ENTER to confirm.

ℹ The factory default password is “11911”.
Factory Reset
Select this option to return all settings to the original factory defaults.

Disc Media
These functions work only on DVD+R or DVD+RW recordable discs. Please make sure that the correct disc is in the DVD recorder before selecting these settings.

Finalize: Finalize a DVD+R (see page 45).
Erase: Erases all of the information on a DVD+RW.

Record Speed
You can record discs using five different quality levels. See page 40 for more information on quality levels.

Auto Chapter
When Auto Chapter is on, the DVD recorder automatically inserts chapters into DVDs that you record. These chapters appear approximately every five minutes. This allows you to jump to specific sections of your DVD more quickly. However, if you plan to set your own chapters, you should not record with Auto Chapter on. You will still be able to add your custom chapters after recording, but you may need to take extra steps to remove the chapters inserted automatically.

The factory default setting for Auto Chapter is “on”.

Schedule
Use this menu to schedule recordings. See the “Recording Discs” section for information on using this feature.
PREPARING DISCS FOR RECORDING

Compatible Discs

• **Recordable Disc Types**
  This unit can record to DVD+R and DVD+RW discs. Please see “Disc Types” below.

• **Playable Disc and Media Types**
<table>
<thead>
<tr>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Video</td>
<td>Commercial “Hollywood” DVD movies.</td>
</tr>
<tr>
<td>SVCD</td>
<td>Super VCD. A format for video saved on CD. Usually used in Asia.</td>
</tr>
<tr>
<td>DVD+RW</td>
<td>DVD format that can be “burned” repeatedly by some recorders.</td>
</tr>
<tr>
<td>DVD+R</td>
<td>DVD format that can be “burned” only once.</td>
</tr>
<tr>
<td>DVD−RW</td>
<td>DVD format that can be “burned” repeatedly by some recorders.</td>
</tr>
<tr>
<td>DVD−R</td>
<td>DVD format that can be “burned” only once.</td>
</tr>
<tr>
<td>CD−R</td>
<td>Recordable CD format often used for music.</td>
</tr>
<tr>
<td>CD−RW</td>
<td>Re-recordable CD format, also used for music.</td>
</tr>
<tr>
<td>Audio CD</td>
<td>Commercial music CD.</td>
</tr>
<tr>
<td>MP3</td>
<td>Format for compressed digital music on CD.</td>
</tr>
<tr>
<td>JPEG</td>
<td>Format for compressed digital photographs on CD or DVD.</td>
</tr>
</tbody>
</table>

We cannot guarantee that your recorded discs will play on another DVD player. Please check the manual for the other DVD player to make sure that it can play DVD+R and/or DVD+RW discs.

Although your DVD recorder can play DVD−R, music CDs, and MP3s, you can not use it to create these types of discs. You can only use it to record video – whether a TV broadcast or a home movie – to DVD+R or DVD+RW.

Disc Types

DVD+RW discs can be erased and copied over again, although this may reduce the quality of your recording. DVD+R discs cannot be copied over, and you cannot add new data to a DVD+R disc once it has been finalized (see the section “Editing Discs” starting on page 49).

You may not be able to record to a DVD+RW disc that already contains recordings from another DVD recorder or PC. If you are able to add a new recording to a disc from another DVD recorder, your recorder will rewrite the DVD menu. If the disc contains data from a personal computer, this data will be erased by your DVD recorder.

Initialize a New Disc

Your DVD recorder will automatically initialize a new DVD+R or DVD+RW disc the first time it is placed into the recorder. This takes about 1 minute, during which the TV screen shows READING. After the procedure is complete, the TV screen shows a blank title and indicates the recording capacity is 100%.

For more information on erasing discs or portions of discs, please see the section “Editing Discs” starting on page 43.
SCHEDULED DISC RECORDING

Scheduling a Recording
Your can schedule up to 8 different programs with your DVD recorder.

1. Make sure that the correct time and date are set on your DVD recorder (see p. 36).
2. Place an initialized DVD+R or DVD+RW disc in the DVD recorder (see p. 38).
3. Press SETUP on your remote control to enter the setup menu. Use the ▲▼ buttons to highlight “Schedule”, then press ENTER to confirm. A screen with the following information appears:

<table>
<thead>
<tr>
<th>No.</th>
<th>mm/dd/yy</th>
<th>AM/PM</th>
<th>Start AM/PM</th>
<th>Stop AM/PM</th>
<th>Source</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>02</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>03</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>04</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>05</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>06</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>07</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
<tr>
<td>08</td>
<td><strong>/</strong>/__</td>
<td>__</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td>______</td>
<td>_____</td>
</tr>
</tbody>
</table>

4. Set the date for your recording: Use the ◄► buttons to move the cursor to the date (mm/dd/yy) field, and use the ▲▼ buttons to select the date for your recording.
5. Set the start time for your recording: First use the ◄► buttons to move to the AM/PM field, and use the ▲▼ buttons to select whether your program begins in the AM or PM hours. Then use the ◄► buttons to move the cursor to the start field, and use the ▲▼ buttons to select the time that you want to start your recording.
6. Set the stop time: First use the ◄► buttons to move to the AM/PM field, and use the ▲▼ buttons to select whether your program ends in the AM or PM hours. Then use the ◄► buttons to move the cursor to the stop field, and use the ▲▼ buttons to select the time that you want to end your recording.
7. Set the source: Use the ◄► buttons to move the cursor to the source field, and use the ▲▼ buttons to select the source for your recording.
8. Set the speed (quality): Use the ◄► buttons to move the cursor to the speed field, and use the ▲▼ buttons to select the quality for your recording. More information about quality levels is included on page 40.
9. Press ENTER to confirm your settings.
10. When you are done, press SETUP again to leave the setup menu.
11. The system will display a warning message that tells you turn off the recorder in order to record your scheduled program. Please follow the instructions on screen.

Stop an In-Process Scheduled Recording
While the record is proceeding, press STOP to stop recording and go to DVD mode, or press POWER to stop recording and go to stand-by status.
Recording Quality

You can record discs using five different quality levels. The higher the quality level, the more space (time) will be taken up on your disc. Press QUALITY on your remote to change the quality settings.

- **HQ (High Quality):** The best picture quality 60 min. / 1 hour
- **SP (Standard Play):** Excellent (DVD video) picture quality 120 min. / 2 hours
- **LP (Long Play):** Good (S-VHS) picture quality 180 min. / 3 hours
- **EP: (Extended Play):** Better than VHS quality 240 min. / 4 hours
- **SLP: (Super Long Play):** VHS picture quality 360 min. / 6 hours

Recording times are estimates, actual recording times may vary. Please note that if your source video is of low quality, then your final recording will be of low quality even if you select a higher quality recording level. Recording over previously recorded discs may also decrease the quality level.

Correct a Scheduled Recording

1. Press SETUP on your remote control to enter the setup menu. Use the ▲▼ buttons to highlight “Schedule”, then press ENTER to confirm.
2. Use the ◄► buttons to move the cursor to the information that you would like to correct.
3. Press ENTER to select the information, and use the ▲▼ buttons to make changes.
4. Press ENTER again to confirm your changes, and press SETUP to close the setup menu.

Cancel a Scheduled Recording

1. Press SETUP on your remote control to enter the setup menu. Use the ▲▼ buttons to highlight “Schedule”, then press ENTER to confirm.
2. Use the ◄► buttons to move the cursor to the number of the recording that you would like to cancel (e.g., 01, 02). This is in the first column.
3. Press CLEAR on your remote control.
4. Press ENTER again to confirm that you would like to cancel this scheduled recording, and press SETUP to close the setup menu.

Troubleshooting Scheduled Recordings

Your DVD recorder will not be able to perform the scheduled recording if:
1. No disc loaded.
2. The disc is write-protected.
3. The disc is not the correct format (DVD+R or DVD+RW).
4. The disc already contains 49 titles. This is the maximum number of titles that can be recorded to a single disc.
5. Another recording is in progress.
6. The DVD recorder’s Time and Date is not set properly.
7. The time set for your recording is in the past.
8. The 8 memory slots for setting recordings are already filled.
9. There is no signal from the selected input source (it may be connected incorrectly or turned off).

The DVD recorder will not be able to tell if a disc is damaged. Even if the recording seems to be working, you may not be able to play back the disc if it has been scratched, smeared, or otherwise damaged.
MANUAL DISC RECORDING

1. Place an initialized DVD+R or DVD+RW disc in the DVD recorder (see p. 38).
2. Select the channel you want to record.
3. Press MONITOR on the remote to switch to external input mode.
4. Press SOURCE to select the input source that you want to record. Press SOURCE multiple times to cycle through the options: CVBS1 > CVBS2 > S-VIDEO > CHANNEL
5. Press RECORD on the remote control or the front panel of the DVD recorder to start recording.
6. Press STOP to stop recording. Please wait while the screen displays “WAIT.” After 15 to 17 seconds, the screen displays “LIVE”, and your recording is done.
7. Press MONITOR to switch to DVD mode. The recorded title will appear on the screen. Press ENTER to view your recorded video.

After recording, the following messages will also be stored:
- Record date and channel source.
- Record time.
- Recording length and recording mode.
- Recording index screen.

⚠️ DVD+RW: These discs can be erased and recorded over.
⚠️ DVD+R: These discs can be recorded and finalized only once. They cannot be erased and recorded over.

Pause recording

1. Press PAUSE while recording to temporarily stop the DVD recorder from recording information. This may be useful for excluding sections that you do not want to record, such as TV commercials.
2. Press PAUSE again to resume normal recording.

 Chapters

Chapters can only be added after your recording has completed, not during the recording itself. Please see page 44 for more information about adding chapters.
recording from external devices

**RECORDING FROM EXTERNAL DEVICES**

You can record the signal from external devices, such as a VCR, video camcorder (V8, Hi8), or DVD player onto DVDs using your DVD recorder.

1. Please confirm the external device is properly connected to the DVD recorder. See the connection diagrams beginning on page 13 for more information.
2. Place an initialized DVD+R or DVD+RW disc in the DVD recorder (see p. 38).
3. Press **MONITOR** on the remote to switch to external input mode.
4. Press **SOURCE** to select the source for your recording.

<table>
<thead>
<tr>
<th>Input (Internal Tuner)</th>
<th>Screen Display (Channel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV 1 IN</td>
<td>CVBS 1</td>
</tr>
<tr>
<td>AV 2 IN</td>
<td>CVBS2</td>
</tr>
<tr>
<td>S-VIDEO</td>
<td>S-VIDEO</td>
</tr>
<tr>
<td>ANTENNA</td>
<td>CHANNEL</td>
</tr>
</tbody>
</table>

5. Press **RECORD** to begin recording.
6. Press **STOP** to stop recording. Please wait while the screen displays “WAIT.” When “WAIT” disappears from the screen, your recording is done.
7. Press **MONITOR** to switch to DVD mode. The recorded title will appear on the screen. Press **ENTER** to view your recorded video.

**The DVD recorder will stop recording automatically if there is no signal from the input device (such as a blank part of a videotape or an interrupted TV signal).**

**Recording from a Camcorder**

1. Connect the red, yellow, and white AV output connectors from your camcorder to the AV input connectors on the front of your DVD recorder.
2. Place an initialized DVD+R or DVD+RW disc in the DVD recorder (see p. 38).
3. Turn on the DV camcorder and switch it to “VCR” mode.
4. Press **MONITOR** on the remote to switch to external input mode.
5. Press **SOURCE** to select the source for your recording.
6. Press **RECORD** to begin recording.
7. Press **STOP** to stop recording. Please wait while the screen displays “WAIT.” When “WAIT” disappears from the screen, your recording is done.
8. Press **MONITOR** to switch to DVD mode. The recorded title will appear on the screen. Press **ENTER** to view your recorded video.

**Recording will stop automatically if there is no signal from the camcorder.**

* All recorded signals must be in DVD-SD format.
* Date and time information can’t be recorded from a camcorder.
* You can’t record copy-protected discs or one-time duplicable discs.
**EDITING DISCS**

**Erase Whole Disc**  
(DVD+RW only)  
Press SETUP to enter the setup menu. Select Disc Media, then Erase.

**Erase One Title**  
(DVD+RW only)  
Erasing a title can free up space on your DVD+RW.  
1. Press **TITLE** on the remote control to enter the title menu. Use the **▲ ▼** buttons to select the title that you would like to erase.  
2. Press **EDIT** on the remote control. The screen will display the following edit options:

```
EDIT
Erase Title  
Play Full Title  
Finalize
```

3. Use the **▲ ▼** buttons to select Erase Title and press **ENTER**. Wait approximately 15 seconds for the disc to be erased. "PLEASE WAIT" will be displayed on the screen while your disc is being erased.

**Play Full Title**  
If there is a hidden chapter in a title, this feature can view all the contents.  
1. Press **TITLE** on the remote control to enter the title menu. Use the **▲ ▼** buttons to select the title that you would like to view.  
2. Press **EDIT** on the remote control. The screen will display the following edit options:

```
EDIT
Erase Title  
Play Full Title  
Finalize
```

3. Use the **▲ ▼** buttons to select Play Full Title and press **ENTER**.
**editing discs**

**Edit DVD Compatibility**

If there is more than one edited title on disc, but it shows only one title when you try to play the disc, you must follow the following instructions to make the disc compatible.

1. Press **TITLE** on the remote control to enter the title menu. Use the **▲ ▼** buttons to select the title that you would like to play.
2. Press **EDIT** on the remote control. The screen will display the following edit options:

```
EDIT

Erase Title
Play Full Title
Finalize
```

3. Use the **▲ ▼** buttons to select **Finalize** and press **ENTER**.

⚠️ We can’t guarantee that you can play your recorded DVD+R or DVD+RW on another DVD player. Check the instruction manual of the other DVD player in advance to confirm that it can play DVD+R or DVD+RW discs.

**Insert Chapter**

Use this feature to insert chapters into your DVD disc for easier navigation.

1. Play the title that you would like to split into chapters.
2. When you reach the point where you would like to insert a chapter, press **EDIT** on the remote control to show the edit menu.

```
EDIT

Insert Chapter
Remove Chapter
Hide Title
Show Title
New Picture
```

3. Choose **Insert Chapter** and press **ENTER** to add a chapter.

**Remove Chapter**

Chapter marks can be deleted after recording.

1. While a movie is playing, press **EDIT** to show the edit menu.
2. Choose “Remove Chapter” to delete the chapter mark for the currently playing chapter. Press **ENTER** to confirm.

⚠️ You cannot insert or remove chapters on a DVD+R that has been finalized.
Hide Title
You can hide titles on your disc so that they can be seen on the title menu, but not played.
1. While the title that you wish to hide is playing, press EDIT to show the edit menu.
2. Choose “Hide Title” and press ENTER to confirm.
3. Press TITLE to return to the title menu.

Show Title
This feature allows you to play a title that has been hidden.
1. Press TITLE to enter the title menu. Use the ▲▼ buttons to select the hidden title and press EDIT to bring up the edit menu.
2. Highlight “Play Full Title” and press ENTER to temporarily play the hidden title.
3. While playing a hidden title, “HIDDEN” shows on the top right corner of the screen.
4. Press EDIT again to show the edit menu.
5. Select “Show Title” and press ENTER to permanently “un-hide” the title.

New Picture
You can choose any frame in a title to use as the index scene for that title. The index scene is displayed on the title menu.
1. Play the title until the frame that you want to use as your index picture appears, then press EDIT on the remote control.
2. Select “New Picture” and press ENTER.
3. Press TITLE to return to the title menu. The title will show the new picture.

Finalize a DVD+R
This function allows a DVD+R disc to be played on general DVD players. A finalized disc can't be recorded with new content or revised.
1. Press SETUP to enter the setup menu and select “Disc Media”.
2. Select “Finalize” and press ENTER to execute.
3. The screen displays the status of the finalization and the remaining time required.

The time required for this function depends on the disc type, length of the recorded content and the quantity of the titles.
## TROUBLESHOOTING

This section includes possible solutions to common problems that you may experience with your DVD recorder.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD recorder displays “HELLO” after the power is turned on, but no functions can be used.</td>
<td>Primary setup has not been completed.</td>
<td>Complete the primary setup before playback (see page 23).</td>
</tr>
<tr>
<td>No power, no signal.</td>
<td>Power cord is not properly connected to the power outlet.</td>
<td>Make sure the plug is properly inserted in the power outlet.</td>
</tr>
<tr>
<td></td>
<td>TV is not correctly connected to the DVD recorder.</td>
<td>Refer to the connection drawings starting on page 13 to make sure that the TV is properly connected.</td>
</tr>
<tr>
<td>The unit turns off by itself.</td>
<td>Automatic power off function: the power is automatically turned off after 20 minutes have passed in stop mode.</td>
<td>Turn the power back on.</td>
</tr>
<tr>
<td>The disc tray can't be closed, or the disc tray comes out automatically after placing a disc in it.</td>
<td>Disc is not inserted correctly in the tray.</td>
<td>Take the disc out of the tray and replace it carefully.</td>
</tr>
<tr>
<td></td>
<td>Disc is too dirty.</td>
<td>Clean the disc.</td>
</tr>
<tr>
<td></td>
<td>Regional code of the disc is not correct.</td>
<td>Check the disc packaging to confirm the regional code is correct (see page 50).</td>
</tr>
<tr>
<td>No playback</td>
<td>Power is OFF.</td>
<td>Turn the power ON.</td>
</tr>
<tr>
<td></td>
<td>No disc is inserted (“no disc” will be shown on screen).</td>
<td>Insert a disc.</td>
</tr>
<tr>
<td></td>
<td>Disc is upside down (“no disc” is shown on screen).</td>
<td>Reload disk – the label side should face upward.</td>
</tr>
<tr>
<td></td>
<td>Dirty disc.</td>
<td>Clean disc surface.</td>
</tr>
<tr>
<td></td>
<td>Deformed disc.</td>
<td>Replace disc.</td>
</tr>
<tr>
<td></td>
<td>Condensation in unit.</td>
<td>Turn power on for 1~2 hours before using the unit.</td>
</tr>
</tbody>
</table>
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Unwanted mosaic-like display during playback. | Poor disc.  
Video CD (MPEG1). | Replace disc.  
Playback with DVD format. |
| No sound. | DVD player is set to slow or fast playback.  
Audio terminals are not connected.  
TV volume is too low.  
Wrong AUDIO OUTPUT setting. | Press **PLAY** to resume normal playback.  
Check audio connections (see pages 14–16).  
Adjust TV volume.  
Check AUDIO OUTPUT settings (see page 36). |
| No video/picture. | TV is not connected properly.  
Wrong setting for VIDEO OUTPUT. | Check video connections (see pages 13–17).  
Press **SETUP** and check the Video Output settings (see page 35). |
| Remote control does not work. | No batteries in remote control.  
Dead batteries.  
Remote control not being pointed at the remote sensor. | Put in new batteries (see page 20).  
Replace batteries (see page 20).  
Point the remote control at the remote sensor (see page 20). |
| Does not play, even when a title is selected. | Prohibited by the parental controls.  
Disc is not finalized.  
Disc is one-time only.  
Other DVD player cannot play DVD+R or DVD+RW discs.  
Other DVD player cannot calibrate because disc has too little data. | Confirm the parental controls setting (see page 36).  
Finalize the disc (see page 45).  
If a disc is recorded with content which is available to be copied one time only, it can’t be played on another DVD player.  
Check the manual of the other DVD player.  
Try a disc with a larger amount of video data recorded to it. |
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit doesn’t record.</td>
<td>Disc is full.</td>
<td>Confirm the available space on the disc.</td>
</tr>
<tr>
<td></td>
<td>Source disc is copy-protected.</td>
<td>Confirm the recording source has no copyright protection.</td>
</tr>
<tr>
<td></td>
<td>Power interruption during the recording.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>There are 2 scheduled recording programs running at the same time.</td>
<td>Check the recording schedule and cancel one of the scheduled recordings (see page 39).</td>
</tr>
<tr>
<td></td>
<td>Disc format is not correct.</td>
<td>This DVD recorder can record only to DVD+R or DVD+RW discs (see page 38).</td>
</tr>
<tr>
<td></td>
<td>The selected language does not exist in the disc.</td>
<td>Select another language using AUDIO, SUBTITLE or the DVD menu.</td>
</tr>
<tr>
<td>Audio or subtitle language is not the one selected during initial setup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menus are in the wrong language.</td>
<td>Wrong language set for OSD.</td>
<td>Check the OSD language setting (see page 34).</td>
</tr>
<tr>
<td>Audio or subtitle language can not be changed.</td>
<td>The disc contains only one language.</td>
<td>Check the disc language contents.</td>
</tr>
<tr>
<td></td>
<td>Some discs only allow the audio and subtitle language to be set in the DVD menu – not with the AUDIO and SUBTITLE buttons on the remote control.</td>
<td>Press the MENU button on the remote control to access the DVD menu.</td>
</tr>
<tr>
<td>The video image brightness fluctuates during playback.</td>
<td>The DVD recorder is connected to the television via a VCR.</td>
<td>Connect the DVD recorder directly to the TV, bypassing the VCR.</td>
</tr>
<tr>
<td>Cannot fast scan during playback of DVD movie.</td>
<td>Some discs may have sections which prohibit skip or scan operations by users.</td>
<td>None.</td>
</tr>
<tr>
<td>Edited titles/chapters do not show up when played on another DVD player</td>
<td>Disc has not been made compatible.</td>
<td>See page 44 for instructions on making a disc compatible.</td>
</tr>
<tr>
<td>Problem</td>
<td>Possible Cause</td>
<td>Solution</td>
</tr>
<tr>
<td>---------</td>
<td>---------------</td>
<td>----------</td>
</tr>
<tr>
<td>Scheduled recording did not work.</td>
<td>No disc loaded.</td>
<td>Prepare and load a recordable disc.</td>
</tr>
<tr>
<td></td>
<td>The disc is write-protected.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>The disc is not the correct format (DVD+R or DVD+RW).</td>
<td>Replace with a disc that is the correct format (see page 38).</td>
</tr>
<tr>
<td></td>
<td>The disc already contains 49 titles.</td>
<td>This is the maximum number of titles that can be recorded to a single disc (see page 43 for deleting titles).</td>
</tr>
<tr>
<td></td>
<td>Another recording is in progress.</td>
<td>Stop the recording in progress (see page 39).</td>
</tr>
<tr>
<td></td>
<td>The DVD recorder’s Time and Date is not set properly.</td>
<td>Set the time and date (see page 36).</td>
</tr>
<tr>
<td></td>
<td>The time set for your recording is in the past.</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>The 8 memory slots for setting recordings are already filled.</td>
<td>Cancel a scheduled recording (see page 39).</td>
</tr>
<tr>
<td></td>
<td>There is no signal from the selected input source.</td>
<td>Check the connections and make sure that the external device is on.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video appears on screen, but flickers, fades or is distorted</td>
<td>DVD recorder is in NTSC mode.</td>
<td>Press the NTSC/PAL button on the remote control to switch to PAL or NTSC Progressive Scan mode (see page 32).</td>
</tr>
</tbody>
</table>
Regional Code
This DVD recorder is designed and manufactured to respond to the Region Management Information 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 will not play the disc. The OSD message “WRONG REGION” will show on the TV screen. This recorder will play DVD discs made for “ALL” regions, as well as DVD discs made for Region 4. The illustration below shows the regions and corresponding region numbers.

Region 1   USA & Canada
Region 2   Europe, Japan, South Africa, Middle East
Region 3   Southeast Asia
Region 4   Central & South America, Australia, New Zealand
Region 5   Former Soviet Union, India, Pakistan, Africa
Region 6   China

Technical Specifications
Technical specifications subject to change without notice.

Power Supply: AC100~240 V, 50/60 Hz
Power Consumption: 30W
Weight: 9 lb.
Dimensions: (W x D x H): 17” x 11.5” x 2.75”
Operating temperature range: 41º F to 104º F
Operating humidity range: 5 % to 90 % (without condensation)

Video System

Composite Video Terminal
Y output level: 1 Vp-p (75 Ω)
CB output level: 0.525 Vp-p (75 Ω) (75% Color)
CR output level: 0.525 Vp-p (75 Ω) (75% Color)

S-Video Terminal
Y output level: 1 Vp-p (75 Ω)
C output level: 0.286 Vp-p (75 Ω) NTSC

Video Terminal: 1 Vp-p (75 Ω)

Horizontal Resolution: More than 500 lines
S/N Ratio: More than 60 dB

Audio Parameters
Frequency Response: 20Hz ~ 20kHz
Dynamic Range: Over 90 dB
S/N Ratio: Over 90 dB
Output level: 2 Vrms
Additional Information

Glossary

Chapter: Chapters are sections of titles. Not every title has chapters.

Component Interlace: A very high level of video output that displays alternate lines of a video frame on each pass (e.g., even lines, then odd lines).

Component Video: A high-end video signal that is supported by most DVDs but very few TVs. Component video connectors are usually red, green, and blue.

Composite Video: An analog video signal that is also called CVBS. Most televisions and VCRs have a composite video connector, which is usually yellow.

Dolby® Digital: A digital surround-sound format designed by Dolby Laboratories, Inc.


D-PCM: The same type of format that CDs are usually recorded in. Use D-PCM for digital sound output in stereo (two channel) as opposed to surround sound.

DVD+R: A recordable DVD format. DVD+R discs can not be recorded over. You can not add recordings to a DVD+R disc that has been finalized.

DVD+RW: A recordable DVD format. You can record over erased sections of a DVD+RW disc.

DVD-R / DVD-RW: A recordable DVD format. Your DVD recorder can play DVD-R or DVD-RW discs, but it can NOT record to them.

DVD-RAM: A recordable DVD format. Your DVD recorder can NOT play or record DVD-RAM discs or cartridges.

JPEG: JPEG is a type of compression used for still pictures. A digital photo is sometimes referred to as a “JPEG” as this is the most common type of format for digital images.

MPEG: MPEG is a type of compression for video. There are different types of MPEG.

MPEG 1 is generally used for VCDs. MPEG 2 is used for DVDs and digital TV, and is higher quality than MPEG 1.

MP3: MP3 is a type of compression used for music files.

NTSC: The TV color format used in North America.

PAL/B: The TV color format used in Singapore.

Pan & scan: A way of reformatting widescreen movies to fit a standard 4:3 television screen by cropping the sides of the video.

PBC (Playback Control): Used on some VCDs and SVCDs to allow menus similar to a DVD menu. It will be easier to control playback with your remote control if PBC is set to “off”. See page 32.

Progressive Scan: Currently the highest level of video output, it displays all of the lines of a video frame in one pass (see Component Interlace above).

Surround Sound: A combination of multiple-channel audio signal and multiple-speaker systems that produces theater-like sound, giving the impression of being seated live at the center of events.

SVCD: A disc format for putting DVD-quality video on CD.

S-Video: A video signal that is higher quality than composite video, but not as good as component video. Many TVs have S-Video inputs (which may also be labeled Y/C).

Title: The main unit for video discs. Usually an entire movie or TV program. A title is divided into chapters.

Toslink: Another name for an optical digital audio connector.

VCD (Video CD): A disc format for video on CDs. Less capacity (and therefore lower quality) than DVDs.