DVD PLAYER

DV-970HD

USER MANUAL

READ CAREFULLY
BEFORE OPERATION

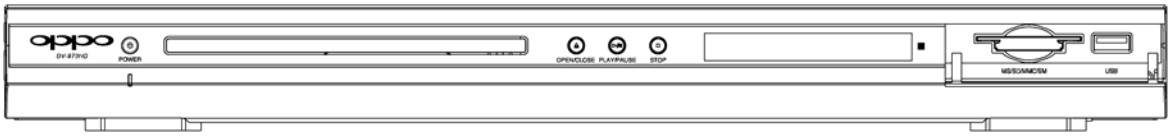


Table of Contents

Table of Contents 1
Important Information 1
Important Safety Instructions 1
Cautions 2
FCC Statement 2
Copyright Protection 3
Compatible Disc Types 3
INSTALLATION 4
Front Panel Controls 4
Front Panel Display Window 4
Rear Panel Connectors 4
Remote Control 5
Battery Installation 6
Using the Remote Control 6
Connection to a TV 7
HDMI Connection 7
Other Connection Options 8
Connection to an Audio System 9
Connection to a Stereo or Surround Audio System 9
Connection to a Receiver/Amplifier with Dolby Digital or DTS Decoder 10
Connection to a Receiver/Amplifier with 5.1ch Audio Input 11
BASIC OPERATIONS 12
Disc Playback 12
Pause Playback 12
DVD Menu Playback 13
Volume Control 13
Mute 13
OSD (On-Screen Display) 14
Audio Language/Channel Selection 14
Subtitle Selection 14
Angle Selection 15
Zooming the Displayed Frame 15
ADVANCED OPERATIONS 16
TV System Selection 16
HDMI Output Resolution 16
Fast Playback 17
Slow Playback 17

Repeat Playback 17
Repeat the Selected Section 18
Random and Shuffle Playback 18
Playback by Track Number 18
Playback from a Specific Location 19
Playing DVD discs 19
Playing CD discs 19
Memory 20
Viewing Static Pictures on DVD-Audio Discs 20
Audio-Only Mode 20
Virtual Keyboard 21
Disc INFO 21
Playing DivX, Digital Audio and Picture Files 22
Digital Picture Play Operations 23
Digital Music Play Operations 24
Playing a Disc with Both Digital Audio and Picture Files 24
Use of USB Equipment and 4-in-1 Card Reader 24
Playing USB Device 24
Playing Flash Memory Card 25
SETUP MENU OPTIONS 26
General Setup Page 27
Speaker Setup Page 28
Audio Setup Page 30
Video Setup Page 32
Preference Page 32
REFERENCES 34
Useful Notes 34
Troubleshooting 34
Specifications 35
Language Code List 36
LIMITED WARRANTY 37
OPPO Digital, Inc. Limited One Year Warranty 37

Important Information

CAUTION:

TO PREVENT ELECTRICAL SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING:

TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

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

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

CAUTION: THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION: DO NOT DEFEAT THE SAFETY PURPOSE OF THE POLARIZED PLUG. A POLARIZED PLUG HAS TWO BLADES WITH ONE WIDER THAN THE OTHER. THE WIDE BLADE IS PROVIDED FOR YOUR SAFETY. IF THE PROVIDED PLUG DOES NOT FIT INTO YOUR OUTLET, CONSULT AN ELECTRICIAN TO HAVE A SUITABLE OUTLET INSTALLED.

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Cautions

- Please disconnect the power plug from the wall outlet if you are not going to use the player for a long time.
- Ensure that all audio/video cables are properly connected before plugging in the power plug. The player is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the player itself has been turned off.
- The acceptable power input range is AC ~ 100V-240V, 50/60Hz
- Before turning on the power of the player, please adjust the volume level of TVs, audio system speakers and amplifiers to the minimum. Adjust the volume as necessary only after normal playback has started to avoid damage to your hearing and equipments.
- Do not put the player near any high power loudspeakers so as to avoid any interference due to vibration or magnetic fields.
- Please put the player at a dry and well ventilated area. Do not put it near heat source, or expose it to direct sunlight, mechanical vibration, humidity or excessive dust.
- Before moving the player, take out any discs. Otherwise the disc may be damaged.
- When moving the player from a cold place to a warm one, or vice versa, moisture may condense on the laser pickup unit inside the player. Should this occur, the player may not operate properly. In such a case please turn the power on for 1-2 hours (without disc) until the moisture evaporates.
- Clean the cabinet, panel, and controls only with a soft cloth slightly moistened with water or a mild detergent solution. Never use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene for cleaning.
- Do not place objects filled with liquid, such as vases, on the player.
- The AC power plug is used as the disconnect device, so the AC power plug shall always remain readily operable.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Copyright Protection

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. 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.

Compatible Disc Types

Type	Size	Recorded Contents
DVD VIDEO	12 cm or 8cm	DVD: Compressed digital audio + compressed digital video (dynamic picture)
DVD AUDIO	12 cm or 8cm	DVD-Audio: Multi-channel digital audio + compressed digital video or still pictures
SUPER AUDIO CD	12 cm or 8cm	Super Audio CD: Multi-channel digital audio
COMPACT disc DIGITAL AUDIO	12 cm or 8cm	CD-DA: Digital Audio

NOTES:

This manual uses the following icons to indicate items applicable to the compatible disc types:

DVD Applies to DVD discs

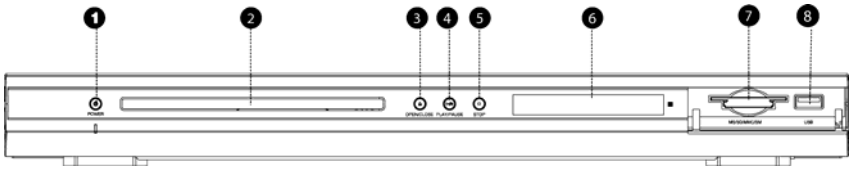
DVD-A Applies to DVD-Audio discs

SACD Applies to Super Audio CD discs

CD Applies to CD discs

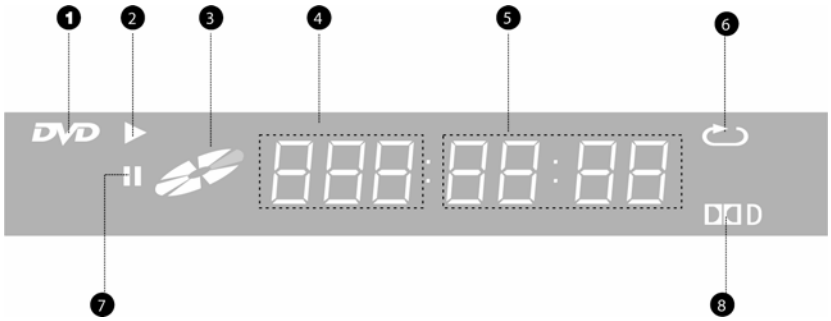
INSTALLATION

Front Panel Controls



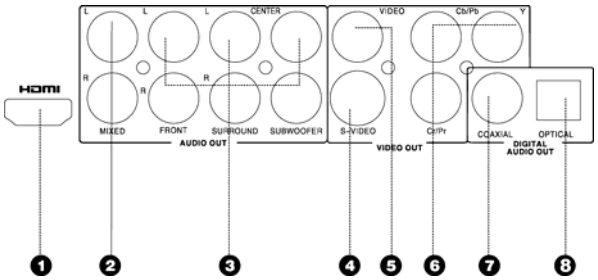
1. POWER Button
2. Disc Tray
3. OPEN/CLOSE Button
4. PLAY/PAUSE Button
5. STOP Button
6. Display Window
7. Flash Memory Card Reader
8. USB Jack

Front Panel Display Window



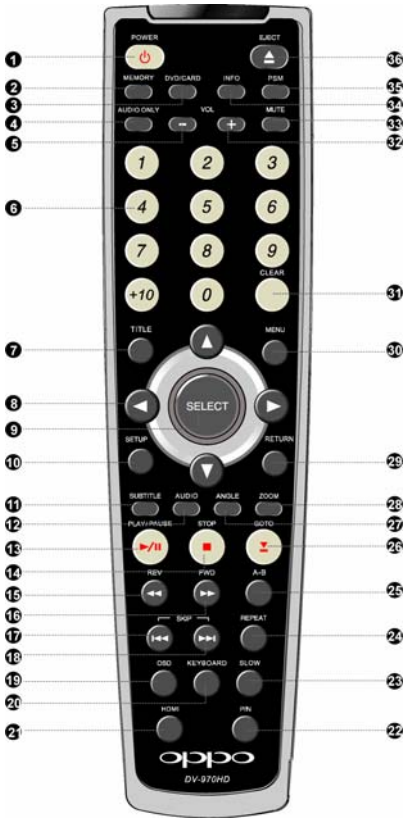
1. DVD Disc
2. Play
3. Playback Status Indicator
4. Chapter or Track
5. Playback Time
6. Repeat
7. Pause
8. Dolby Digital

Rear Panel Connectors



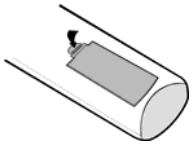
1. HDMI Jack
2. Mixed L/R Audio Out Jacks
3. 5.1ch Audio Out Jacks
4. S-Video Jack
5. Video Out Jack
6. Component Video (Y, Pb, Pr) Jacks
7. Coaxial Digital Audio Jack
8. Optical Digital Audio Jack

Remote Control

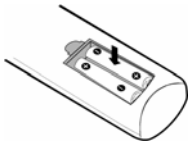


1. **POWER** Button – Toggle power STANDBY and ON
2. **MEMORY** Button – Save the playing point or jump to the saved point
3. **DVD/CARD** Button – Switch playback media between DVD and flash memory card
4. **AUDIO ONLY** Button – Turn off/on video
5. **VOLUME -** - Decrease volume
6. **NUMBER** Buttons – Enter numeric values
7. **TITLE** Button – Show DVD title menu
8. **ARROW** Buttons – Navigate menu selection
9. **SELECT** Button – Confirm menu selection
10. **SETUP** Button – Enter the DVD player setup menu
11. **SUBTITLE** Button – Change subtitle language / Switch picture display mode
12. **AUDIO** Button – Change the audio language or channel
13. **PLAY/PAUSE** Button – Start or pause playback
14. **STOP** Button – Stop playback
15. **REV** Button – Fast reverse play
16. **FWD** Button – Fast forward play
17. **PREV** Button – Skip previous
18. **NEXT** Button – Skip next
19. **OSD** Button – Show/hide On-Screen Display
20. **KEYBOARD** Button – Show/hide virtual keyboard
21. **HDMI** Button – Switch HDMI output resolution
22. **P/N** Button – Switch output TV system: NTSC, PAL or AUTO
23. **SLOW** Button – Slow play
24. **REPEAT** Button – Repeat play
25. **A-B** Button – Repeat play the selected section
26. **GOTO** Button – Play from a specified location
27. **ANGLE** Button – Change camera angles
28. **ZOOM** Button – Zoom in/out the display
29. **RETURN** Button – Return to the previous menu
30. **MENU** Button – Show DVD menu
31. **CLEAR** Button – Clear input numbers
32. **VOLUME +** - Increase volume
33. **MUTE** Button – Mute audio
34. **INFO** Button – Display disc info
35. **PSM** Button – Power Spectrum Meter on/off
36. **EJECT** Button – Open/close the disc tray

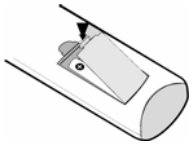
Battery Installation



1. Remove the battery compartment cover



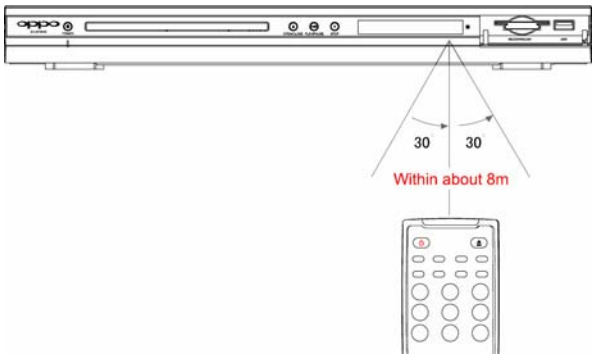
2. Insert batteries



3. Replace the battery compartment cover

Using the Remote Control

When using the remote control, the front window of the remote control should be pointed to the infrared sensor on the front panel within an angle of ±30° and a range of about 26 ft.



CAUTIONS

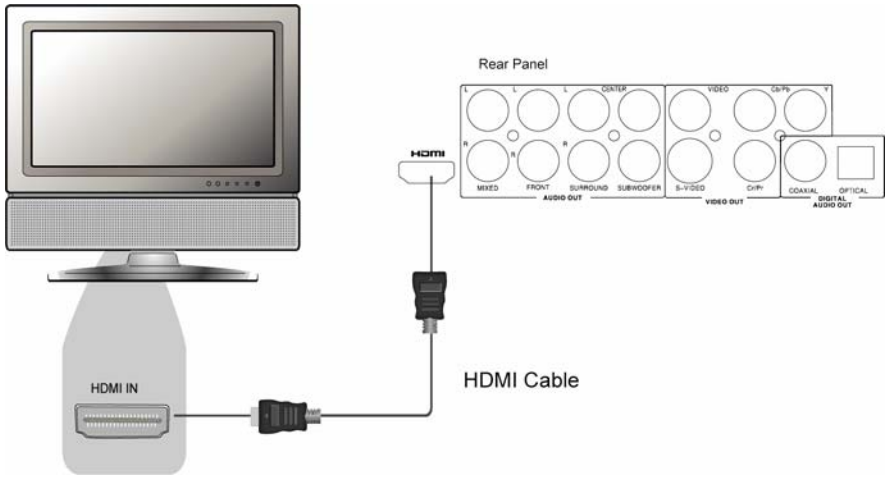
- Never drop the remote control or expose it to moisture.
- Never expose the infrared remote sensor on the front panel to direct sunlight or strong beams.
- When the batteries become low, replace them in time.
- If the remote control will not be used for a long time, please remove the batteries from it.

NOTES

- When a button is pressed but its function is invalid at the moment, the TV screen displays:

Connection to a TV

HDMI Connection

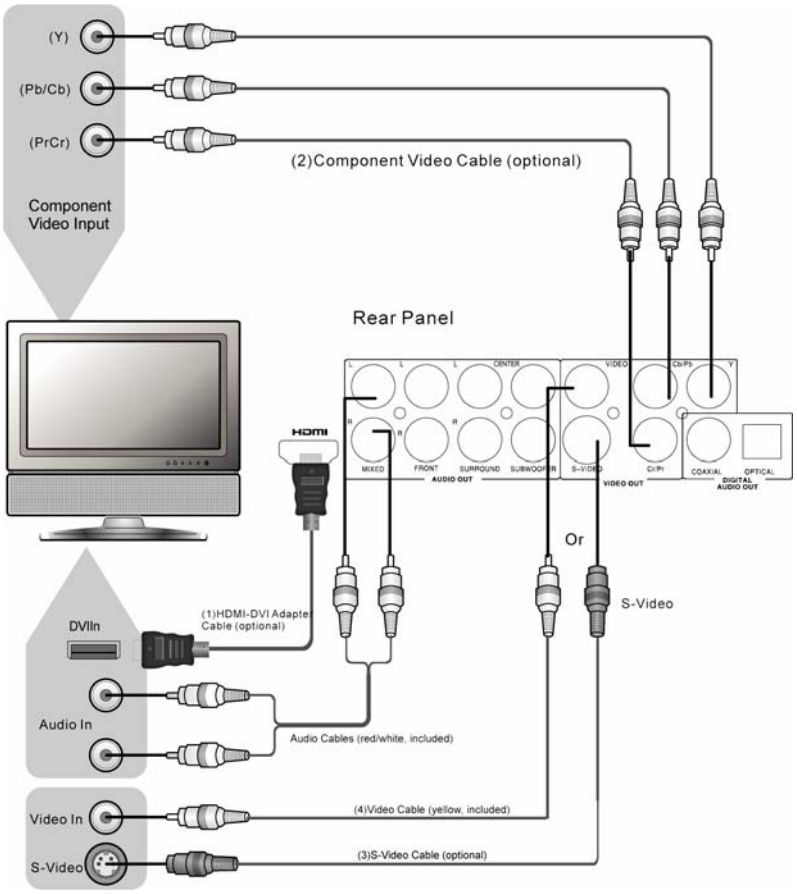


- If your TV has an HDMI input, you can use the included HDMI cable to connect the DVD player to the TV. This is the most preferred connection method since it delivers both video and audio in pure digital format via a single cable.

- When playback is completely stopped, use the “HDMI” button on the remote control to switch the video output resolution. Select the resolution that produces the best picture quality on your TV. (Please refer to page 16 for details.)

- If the HDMI input of your TV is only capable of decoding 2-channel digital audio, it is recommended that you set audio down-mix mode of the DVD player to “Stereo”. (Please refer to page 28 for details.)

Other Connection Options



Video Connection

Depending on the input available on your TV, select one of the following methods to connect the video output of the DVD player to your TV. The video connections are listed in descending order of video quality.

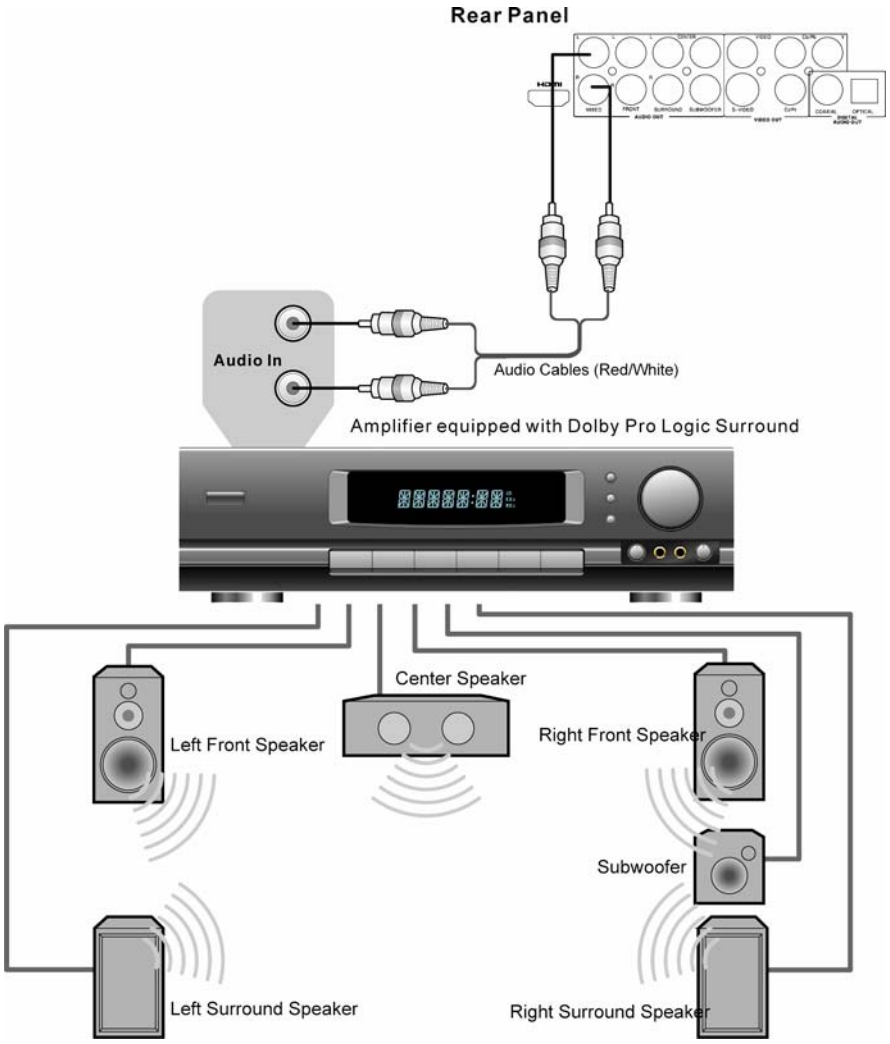
BEST	If the TV has a DVI input, using an HDMI-DVI Adapter Cable to connect the HDMI output of the DVD player to the TV will result the best pure digital video quality.
BETTER	If the TV has component video inputs, please use a component video cable to connect the component video output of the DVD player to the TV. The connectors are color coded, so please make sure the cable connections match on both ends. The component video connection will produce a very clear picture with high color accuracy.
GOOD	If the TV has an S-Video input, you may use an S-Video cable to connect the DVD player to the TV. S-Video reduces the interference between the luminance (brightness) and chrominance (color) video signals.
STANDARD	If the TV has a standard composite video input, please use the included yellow video cable to connect the VIDEO output of the DVD player to the TV.

Audio Connection

- Please use the Red/White audio cables to connect the MIXED audio output of the DVD player to the TV. Make sure the audio cables are connected to the same input terminal group on the TV as the video signals.
- Please set the down-mix mode of the DVD player to “Stereo” or “V. Surround”. (Refer to page 28 for details.)

Connection to an Audio System

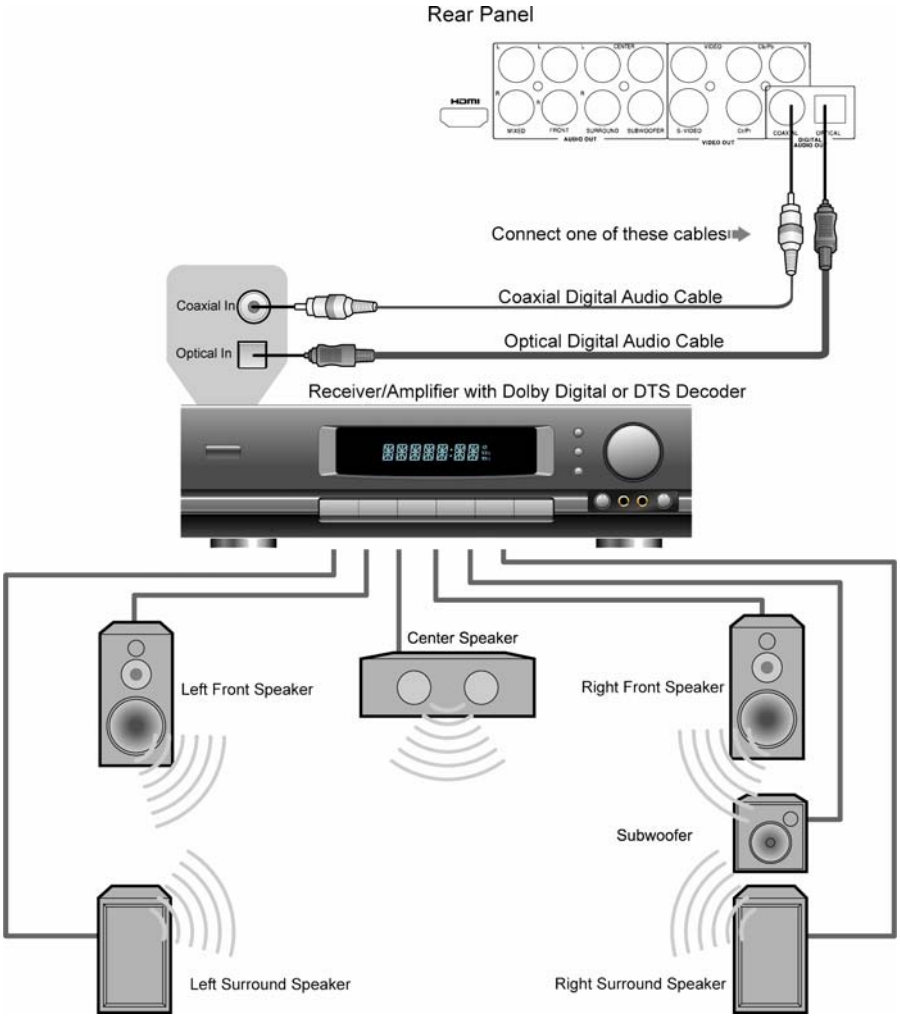
Connection to a Stereo or Surround Audio System



- If the audio system does not have surround speakers, please set the down-mix mode to “Stereo” or “V. Surround”.
- If the audio system has surround speakers and Dolby Pro Logic Surround support, please set the down-mix mode to “Left/Right”.

(Please refer to page 28 for details.)

Connection to a Receiver/Amplifier with Dolby Digital or DTS Decoder

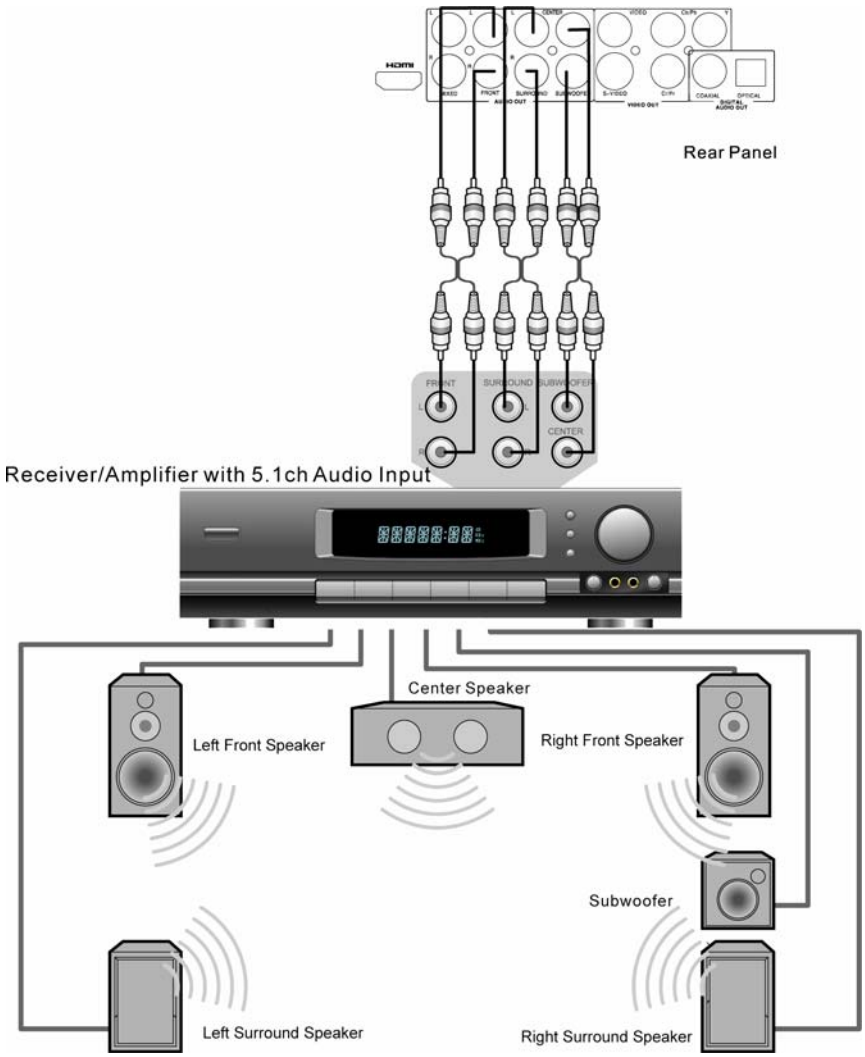


- Please set the SPDIF Output of the DVD player to “Raw”. (Refer to page 30 for details.)

NOTES

- Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.
- “DTS” and “DTS Digital Out” are trademarks of Digital Theater Systems, Inc.

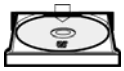
Connection to a Receiver/Amplifier with 5.1ch Audio Input



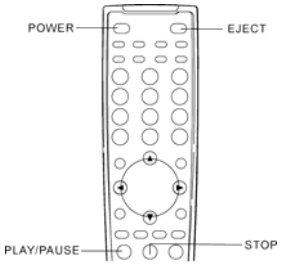
- Please set the audio down-mix mode of the DVD player to “5.1ch”. (Refer to page 28 for details.)
- Please set the speaker size and distance in the “Speaker Setup” page of the DVD player’s setup menu. (Refer to page 28 for details.)

BASIC OPERATIONS

Disc Playback

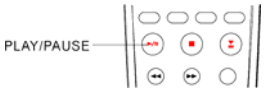


1. Press the POWER button to turn on the DVD player.
2. Press the OPEN/CLOSE (EJECT) button to eject the disc tray.
3. Place the disc with the label side facing up and the record side facing down.
4. Press the OPEN/CLOSE (EJECT) button again to retract the tray.
5. The DVD player reads disc information and starts playback.
6. Depending on the content of the disc, a menu or navigation screen may appear. Please use the navigation arrow and SELECT buttons to select the content to play.



7. To stop playback, press the STOP button.
   - During DVD playback, pressing the STOP button for the first time brings the DVD player to a pre-stop mode. You can resume playback from the stopped point by pressing the PLAY/PAUSE button. This pre-stop mode allows you to change the player settings and then resume playback.
   - To completely stop playback, press the STOP button twice.
8. To turn off the player, press the POWER button.
   - This unit consumes a small amount of power even when it is turned off to STANDBY mode. To save power when the unit is not to be used for a long time, unplug it from the household AC outlet.

Pause Playback



1. During playback, press the PLAY/PAUSE button to temporarily pause the program.
   - In the PAUSE status, the TV screen displays:

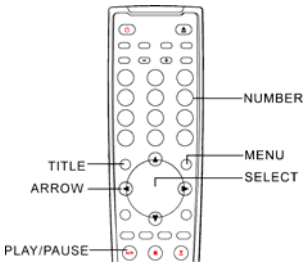
2. Press the PLAY/PAUSE button again to resume playback.

NOTES

If the screen saver is set to “ON” (please refer to page 27 for details), after pausing for 2 minutes the screen saver will be displayed automatically. This is to minimize possible burn-in on plasma or CRT screens caused by displaying a static image for a prolonged period of time.

DVD Menu Playback

DVD DVD-A



1. Some DVD discs contain title menu or chapter menu functions.
2. Press the MENU button on the remote control to display the menu on the TV screen.

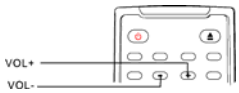
3. Make menu selections using the number buttons or navigate the menu using the CURSOR buttons, and then press the PLAY/PAUSE or SELECT button to make the selection.

NOTES

- Press the TITLE button to return to the disc title menu.
- Press the MENU button to return to the initial menu.
- Press the RETURN button to return to the previous menu. The return location varies with discs.

Volume Control

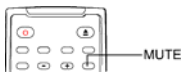
DVD DVD-A CD SACD



1. For regular audio volume adjustment, it is recommended that you use the volume control on your TV or receiver/amplifier.
2. The VOL +/- buttons on the DVD remote control is provided as an alternative way of controlling the audio volume. It is recommended that you use this control to make the audio volume from the DVD player the same as from other sources, such as TV programs or a VCR.
   - Press the VOL – button to decrease the volume.
   - Press the VOL + button to increase the volume.
   - The maximum volume is 20.

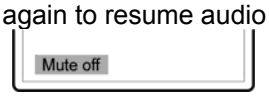
Mute

DVD DVD-A CD SACD



1. Press the MUTE button on the remote control during playback to turn off audio output. The TV screen displays “MUTE”

2. Press the MUTE button again to resume audio output.

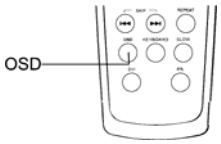


NOTES

Check the MUTE status by pressing the MUTE button when there is no audio output.

OSD (On-Screen Display)

DVD DVD-A CD



Press the OSD button on the remote control to show disc information and operation function hints on the TV screen.

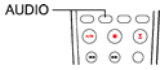
The OSD display includes the followings:

DVD disc:

CD disc:

Audio Language/Channel Selection

DVD DVD-A CD



To select the audio language or channel, press the AUDIO button on the remote control during playback.

- For DVD or DivX discs that are encoded with multiple audio languages or channels, you may select the desired language or channel.

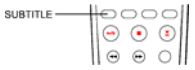
- For CD or other stereo audio content, you may select audio output from the LEFT channel only, RIGHT channel only, or STEREO.

NOTES

Availability of languages and audio channels varies with discs.

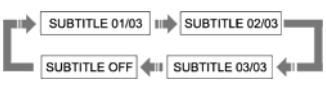
Subtitle Selection

DVD



When playing DVD discs or DivX programs recorded with subtitles, press the SUBTITLE button on the remote control to select the desired subtitle.

Each press of SUBTITLE button switches one available subtitle in a looping manner:

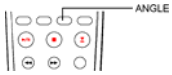


NOTES

Availability of subtitle depends on discs and contents.

Angle Selection

DVD



1. When playing DVD discs, an angle mark will be displayed on the screen when the player detects scenes recorded with multiple angles:

2. Press the ANGLE button on the remote control to select the desired playing angle.

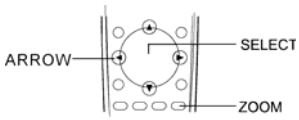
3. To resume normal playback, repeat pressing the ANGLE button until the default angle is displayed.

NOTES

- This function is available only when the discs are recorded with multiple angles.
- The angle mark on the screen can be turned off using the setup menu of the DVD player.

Zooming the Displayed Frame

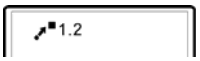
DVD



The feature zooms in or out the displayed frame.

1. To change the zoom ratio, press the ZOOM button on the remote control. Each press of the ZOOM button will switch the zoom ratio in the following sequence:

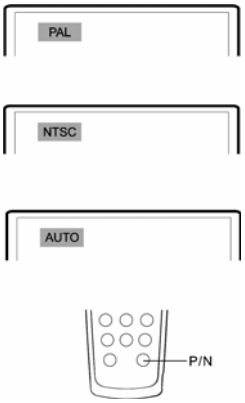
1.0 (No zooming) → 1.2 → 1.3 → 1.5 → 2 → 2.5 → 3 → 3.5 → 4 → ½ → ⅓ → ¼ → Back to 1.0 again



2. When the frame is magnified, press the ARROW buttons to move the visible area in the frame (Panning).

ADVANCED OPERATIONS

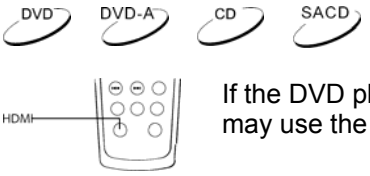
TV System Selection



While you will want to set the video output system (NTSC/PAL) to the same as that supported by your TV, realize that the DVD player will convert, on-the-fly any content that is not in the format your TV understands. The default output is NTSC for North America. Some things to keep in mind:

- When the video output is set to PAL or NTSC system, the DVD player will convert the disc content to the selected system if it is different.
- When the video output is set to AUTO, the DVD player will **not** perform system conversion. The AUTO mode is only to be used if your TV supports both NTSC and PAL systems.
- Playback must be stopped before switching the system from one setting to another.

Output Resolution



If the DVD player is connected to the TV using its HDMI or component output, you may use the HDMI button on the remote control to select the best display resolution.

1. Make sure the HDMI cable, HDMI-DVI adapter cable or component video cable is properly connected.
2. Turn on the TV. Adjust the TV to use the proper input (HDMI, DVI or Component).
3. Turn on the DVD player with no disc in its tray, or if the DVD player is already on, make sure that playback is completely stopped.
4. Press the HDMI button to show the current output resolution. Each subsequent press of the HDMI button switches the output resolution in the following sequence:

NTSC output:

480i → 480p → 720p 60Hz → 1080i 60Hz → Back to 480i again

PAL output:

576i → 576p → 720p 50Hz → 1080i 50Hz → Back to 576i again

5. The selected output resolution will be briefly displayed on the upper left corner of the TV screen as well as on the DVD player's front panel LED display.

NOTES

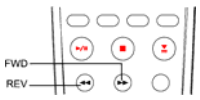
- Some TV sets do not support one or more HDMI output resolutions (particularly 480i). In this case repeatedly press the HDMI button until a supported resolution is selected. Give your display a second or two to "grab on" to the new signal and attempt to display a picture.

- In case you are not able to get a picture using the HDMI output, please connect the DVD player to the TV using either the composite video or S-Video outputs, and then use the setup menu to adjust the DVD player settings.
- Due to copyright protection requirements, when playing copyright-protected DVD discs, the component output resolution is limited up to 480p. If the component output resolution of the DVD player is set at 720p or 1080i, automatic resolution downgrade may happen. HDMI output resolution is not affected by this limitation as it is copy-protected with HDCP.

Fast Playback

DVD DVD-A CD SACD

You may fast forward or reverse to search for a certain point during playback.



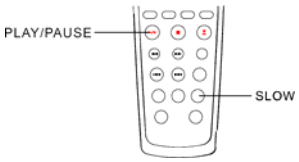
1. Press the FWD button on the remote control and the player starts fast forward playback. Each press of the FWD button switches the playback speed in the following sequence:

2. Press the REV button on the remote control and the player starts fast reverse playback. Each press of the REV button switches the playback speed in the following sequence:

Slow Playback

DVD

To slow down the playback speed, please use the following steps.

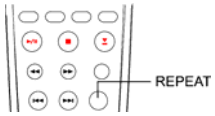


1. Press the SLOW button on the remote control and the player starts slow playback. Each press of the SLOW button switches the playback speed in the following sequence:

2. Press the PLAY/PAUSE button during slow playback to resume normal playback speed.

Repeat Playback

DVD DVD-A CD SACD



To repeat a certain chapter, title, track or disc, press the REPEAT button on the remote control.

Each press of the REPEAT button switches the repeat mode in the following sequence:

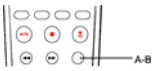
DVD, DVD-Audio disc:

CD disc:

SACD disc:

Repeat the Selected Section

DVD DVD-A CD SACD



To repeatedly play a specified section, please follow these steps:

1. During normal playback, press the A-B button on the remote at the desired beginning point (Point A) for the repeat play.

2. When playback reached the desired ending point (Point B) for the repeat play, press the A-B button again.

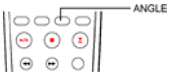
3. The player now repeatedly plays back the specified section (A-B).
4. Press the A-B button for the third time to resume normal playback.

NOTES

Not available for all disc formats or contents.

Random and Shuffle Playback

CD

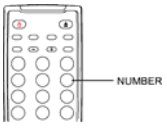


When playing an audio CD disc, you may use the ANGLE button to switch the playback mode from normal playback mode to random or shuffle playback mode.

In normal playback mode, each track of the CD disc is played back in sequential order. As the name implies, the random playback mode randomly selects a track to play. The shuffle mode also plays back the tracks in random order, but it ensures that each track is played only once.

Playback by Track Number

DVD DVD-A CD SACD



Insert disc. After the player begins reading the disc, press the NUMBER buttons on the remote control to select the chapter/track for playback.

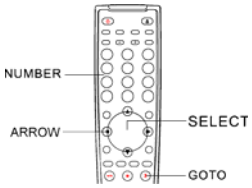
- Press the NUMBER buttons 1-9 to directly select the corresponding chapter/track if the chapter/track number is below 10. For example, to select the seventh track, press the [7] button.

- Press the +10 button and then the NUMBER buttons 0-9 to directly select the corresponding chapter/track if the chapter/track number is above 10 (including 10).
- For example, to select the 16th track, press [+10] followed by [6]:

- To select the 25th track, press [+10] twice followed by [5].

Playback from a Specific Location

Playing DVD discs



You may specify a point to start playback by entering the title, chapter or time directly.

1. **Title and chapter search.** For example, search for Title 6, Chapter 2:
   - Press the GOTO button on the remote, and the TV screen displays:

     TITLE /030 Chapter 000/002

     (You may need to use the ARROW buttons to move the cursor to the Title location.)
   - Enter the title number 6. The cursor moves to the Chapter location and the TV screen displays:

     TITLE 006/030 Chapter 000/002
   - Enter the chapter number 2. The TV screen displays:

     TITLE 006/030 Chapter 002/002
   - Playback starts from the specified title and chapter.

NOTES

To enter a number greater than 9, use the +10 button.

2. **Title time search.** For example, search for a specified elapsed time within the currently playing title.
   - Repeatedly press the GOTO button until the TV screen displays the following picture. Use the NUMBER buttons to enter the HOUR, MINUTE and SECOND.

     TITLE 06/30 TIME : :
3. **Chapter time search.** For example, search for a specified elapsed time within the currently playing chapter.
   - Repeatedly press the GOTO button until the TV screen displays the following picture. Use the NUMBER buttons to enter the HOUR, MINUTE and SECOND.

     CHAPTER 01/04 TIME : :

Playing CD discs

1. **Disc time search**

- Repeatedly press the GOTO button until the TV screen displays the following picture. Use the NUMBER buttons to enter the MINUTE and SECOND.

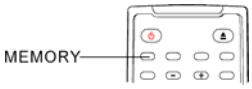
2. Track time search

- Repeatedly press the GOTO button until the TV screen displays the following picture. Use the NUMBER buttons to enter the MINUTE and SECOND.

3. Select a track

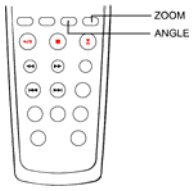
- Repeatedly press the GOTO button until the TV screen displays the following picture. Use the NUMBER buttons to enter the track number. For track numbers greater than 9, please press the +10 button first.

Memory



1. If you must interrupt the playback and would like to resume from the interrupted position at a later time, you may press the MEMORY button on the remote control to save the current playing position.
2. The position is memorized even after turning off the unit or changing the disc.
3. When the next time the disc with a memorized playing position is played back, the DVD player will recognize the saved playing position. When prompted, you may press the STOP button to cancel resuming and start playback from the beginning. If you press a button other than STOP, or do not press any button at all, playback will resume from the saved playing position.
4. The saved playing position is erased after resuming or canceling playback from the memorized location. To save a new position, please press the MEMORY button again.

Viewing Static Pictures on DVD-Audio Discs



Some DVD-Audio discs contain static pictures, such as photos of the band or narration of the album. When a DVD-Audio track is playing, you may use the ANGLE button to select the previous picture or the ZOOM button to select the next picture.

Audio-Only Mode

You can enjoy higher quality audio by turning off the video processing and output. The Audio-Only mode reduces interference between the video and audio signals.

1. Press the AUDIO ONLY button on the remote control to turn off video and enter Audio-Only mode.
2. Press the AUDIO ONLY button again to resume video and cancel Audio-Only mode.

NOTES

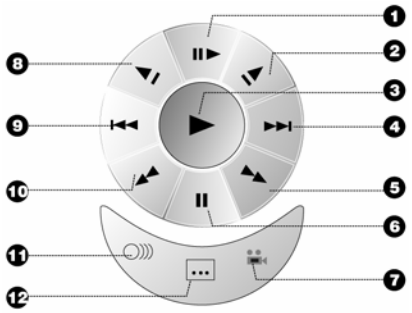
Audio-Only mode is cancelled if the unit is switched to STANDBY.

Virtual Keyboard

DVD

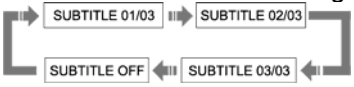
While enjoying a movie in a dark environment, the brand new on-screen virtual keyboard and the easy-to-locate ARROW buttons on the remote control allow you to easily perform playback controls and configurations.

1. Press the KEYBOARD button on the remote control, a virtual keyboard will appear on the screen as shown in the figure:



1. Step
2. Forward Slow Playback
3. Play
4. Skip Next
5. Fast Forward
6. Pause
7. Angle
8. Reverse Slow Playback
9. Skip Previous
10. Fast Reverse
11. Audio
12. Subtitle

2. Use the four ARROW buttons to select the function you wish to perform, and then press the SELECT button to confirm. For instance, to select a subtitle:
   - Press the ARROW buttons to select the subtitle icon in the virtual keyboard. Each press of the SELECT button switches an available subtitle language.



3. To exit the virtual keyboard, press the KEYBOARD button again.

NOTES

The virtual keyboard function is applicable to DVD discs only.

Disc INFO

DVD

The brand new disc INFO browser enables you to conveniently view the disc information, perform disc navigation and playback control. The following example shows how to use the disc INFO browser during DVD playback.

1. Press the INFO button on the remote control. The TV screen displays the following:

- Video preview in the top half of the screen
- Disc information in the lower half of the screen
- Current bit rate (unit: 100kbps) and playback time at the bottom of the screen

2. Press the UP/DOWN ARROW buttons to select an item in the disc information display. If the selected item allows modification, press the SELECT button to make selections or modifications.

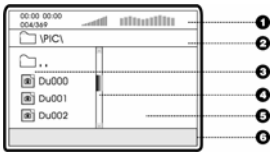
- For example, to navigate to a specific chapter, press the UP/DOWN ARROW buttons to select the “Chapter” item, and then press the SELECT button.

- Press the NUMBER buttons to select the desired chapter. To select the 4th chapter, press 0 and 4.

3. To exit the disc INFO browser, press the INFO button again.

Playing DivX, Digital Audio and Picture Files

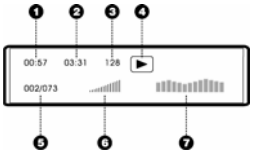
When you insert a disc which contains DivX, XviD, digital audio or digital picture files, the TV screen displays a disc navigation menu as shown the in the figure:



1. Status Window – Displays the current status information
2. Directory Window – Displays the current directory path
3. File Window – Lists the files in the current directory
4. Scroll Bar – Indicates the position of the current file in the directory
5. Preview Window – Picture preview or other file information
6. Information Window – Displays file information or operation prompts

You may switch between the directory listing mode and file listing mode using the ANGLE button on the remote control. In the directory listing mode (default) the files are listed according to the directory structure of the disc. In the file listing mode all files in the disc are listed in a flat view.

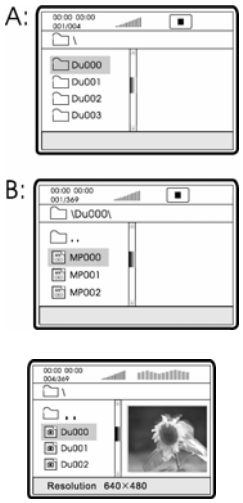
The Status Window contains the following elements:



1. Elapsed play time of the current digital audio file
2. Total play time of the current digital audio file
3. The audio bit rate
4. Current playback mode indicator (play/stop/pause)
5. Track indicator
6. Volume indicator
7. Dynamic frequency power spectrum meter

When a disc is first loaded into the player, it may take a few moments to search the compatible files and build the disc navigation menu. Please be patient.

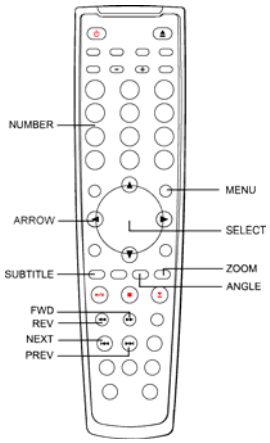
To navigate the disc navigation menu:



- Press the UP/DOWN ARROW buttons to select the desired directory and press the SELECT button to enter it.
- To return to the previous level of directory, select the [🗀..] directory in the first line, or press the LEFT ARROW button.
- If a directory contains many files, you may press the PREV or NEXT SKIP button to the previous or next page of the directory listing.
- Press the UP/DOWN ARROW buttons to select the DivX, XviD, digital audio or digital picture file. If a preview image or additional information is available, the preview will appear in the preview window.
- Press the SELECT button to play the file. DivX/XviD file will be decoded and played back. Digital music file will start playing, and digital picture will be displayed in full screen slide show mode.

Digital Picture Play Operations

When a picture is displayed in full screen slide show mode, the following operations are available:



- Press the SUBTITLE button to switch among various picture transition modes.
- Press the ZOOM button to start the zoom in/out function. The TV screen displays “Zoom 100%”
  - While in the zoom mode, press the FWD or REV button to change the zoom ratio. Available zoom ratios are from 50% to 200%.
  - When the picture is magnified larger than the screen, you may use the ARROW buttons to move the visible area in the picture frame (Panning).
  - To exit the zoom mode, press the ZOOM button again.
- Press the STOP button to stop the slide show and display the pictures in thumbnail mode. You may:
  - Press the PREV or NEXT SKIP button to display the previous or next page of thumbnails;
  - Use the ARROW and SELECT buttons to select a picture to display;
  - Use the NUMBER buttons to directly select a picture to display.
- Press the MENU button to stop the slide show and return to the disc navigation menu.
- Press the ARROW buttons to rotate or flip the picture:

- UP: Invert
- DOWN: Mirror
- LEFT: Rotate counter-clockwise
- RIGHT: Rotate clockwise

Digital Music Play Operations

When playing digital music files, the following operations are available:

- **Repeat, Shuffle or Random Playback –** Press the REPEAT button on the remote control to switch the playback mode.

- **Skip** – To skip to another song, use the ARROW buttons on the remote control to highlight the song to play, and then press the SELECT button. The SKIP NEXT and SKIP PREV buttons can be used to move the cursor to the next or previous page of the song list.

Playing a Disc with Both Digital Audio and Picture Files

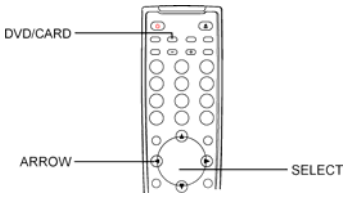
If the disc contains both digital audio and picture files, you can enjoy both of them simultaneously. First navigate to the folder that contains the digital audio files and start the audio playback. Next you can navigate to the folder that contains the digital picture files and start the slide show. The slide show will start with the already playing digital audio as background music.

Use of USB Equipment and 4-in-1 Card Reader

This DVD player is equipped with a USB port and a 4-in-1 flash memory card reader, which supports Secure Digital (SD), Multi-Media Card (MMC), Memory Stick (MS) and SmartMedia (SM). You may use the USB port and the card reader to play DivX/XviD, digital audio and digital picture files stored on compatible USB drives and flash memory cards.

Playing USB Device

Please connect the USB device to the USB port of this DVD player using a compatible USB cable. Press the DVD/CARD button on the remote control. A device selection menu will appear.



Use the DVD/CARD button or the ARROW buttons to highlight the “USB” item of the device selection menu, and then press the SELECT or PLAY/PAUSE button to confirm. The DVD player will start reading the files stored in the USB device. After correctly reading the files, a disc navigation menu will appear. You may now select the files to playback. Please refer to page 22 for detail instructions.

Playing Flash Memory Card

Please insert a compatible flash memory card into one of the 4-in-1 card reader slots. Press the DVD/CARD button on the remote control. A device selection menu will appear.

Use the DVD/CARD button or the ARROW buttons to highlight the “Card Reader” item of the device selection menu, and then press the SELECT or PLAY/PAUSE button to confirm. The DVD player will start reading the files stored in the flash memory card. After correctly reading the files, a disc navigation menu will appear. You may now select the files to playback. Please refer to page 22 for detail instructions.

NOTES

- This unit supports “USB 1.1 Mass Storage Class Bulk-Only Transport” devices only. Most USB thumbs drive and portable hard disk drives conform to this device class. Other USB devices such as MP3 players, digital cameras, and mobile phones may not be compatible.
- Supported USB drives and flash memory cards must be formatted with the FAT (File Allocation Table) file system. Drives and flash memory cards formatted with NTFS file system are not supported.
- If the USB drive or flash memory card has no files, the screen displays “Empty Device” and no disc navigation menu will appear. If the USB drive or flash memory card is incompatible, or the player encounters errors while reading the USB drive or flash memory card, the screen displays “Device Error”. In this case please check the USB drive or flash memory card is compatible, and try to unplug the device and re-insert again.
- In some cases, an incompatible USB device or flash memory card may cause the play to stop responding. If this occurs simply turn off the power, remove the USB device or flash memory card, and turn the player back on.

SETUP MENU OPTIONS

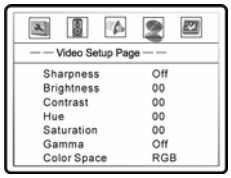
The SETUP menu of the DVD player presents many setup and configuration options. For most users, the default configuration works well enough and there is no need to change the settings. However if you need to configure the DVD player to perfectly match your home theater settings and watching preference, please follow these instructions.

1. Press the SETUP button on the remote control, and the TV screen displays:

2. Press the LEFT/RIGHT ARROW buttons to select the setup page. There are 5 pages: General Setup, Speaker Setup, Audio Setup, Video Setup, and Preference. Press the SELECT button to enter the selected setup page. The Preference page can only be accessed when playback is completely stopped, or when there is no disc in the player.

3. Press the UP/DOWN ARROW buttons to select the setup item to be changed, and press the SELECT button to change the setting. Grayed-out setup items cannot be changed. To allow changing of such items, make sure playback is completely stopped, or there is no disc in the player.

   For example, in the Video Setup Page, you may use the UP/DOWN ARROW buttons to select the “Sharpness” setup item, and press the SELECT button to change the “Sharpness” setting.



4. To select a value from the list of available settings, press the UP/DOWN ARROW buttons and then press the SELECT button to confirm.

   For example, after using the UP/DOWN ARROW buttons to select “Off” for “Sharpness” and pressing the SELECT button.

5. To exit the SETUP menu, press the SETUP button on the remote control.

General Setup Page

1. **TV Display**: To set the aspect ratio of the player's output image to match your TV. The options are :
   - **4:3 Pan/Scan** – 4:3 TV Pan and Scan. Choose when the display is 4:3. Both sides of widescreen image are clipped.
   - **4:3 Letterbox** – 4:3 TV Letterbox. Choose when the display is 4:3. Widescreen image is displayed in "letterbox" format with black borders on top and bottom.
   - **16:9 Wide** – Choose when the display is 16:9. 16:9 materials will be displayed in its native aspect ratio, and 4:3 materials will be stretched.
   - **16:9 Wide/SQZ** – 16:9 TV Wide/Squeeze Mode. Choose when the display is 16:9. 16:9 materials will be displayed in its native aspect ratio, and 4:3 materials will be displayed with black borders on both sides to maintain 4:3 aspect ratio.

DVD Content	TV Screen Appearance			
	4:3		16:9	
	Pan-Scan	Letterbox	Wide	Wide/SQZ
4:3				
16:9				

2. **OSD Lang**: On-Screen Display Language. To set the language of on-screen display, menus and prompts.

3. **Screen Saver**: To turn on/off the screen saver function. When the screen saver is on, a moving logo will appear instead of the static image after 2 minutes of inactivity. This is designed to minimize the burn-in issue for plasma and CRT display devices.

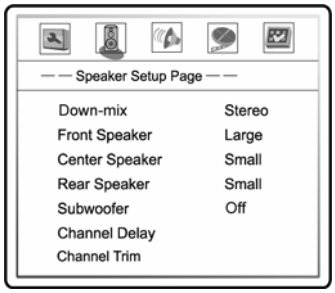
4. **Angle Mark**: To turn on/off the display of angle mark when DVD content with multiple available angles is played.

5. **SACD Priority:** To select which audio tracks to play for SACD (Super Audio CD). The options are:
   - **Multi-Channel** – Play the multi-channel surround audio
   - **2-Channel** – Play the 2-channel stereo audio
   - **CD MODE** – Play the CD layer of a hybrid SACD disc

6. **DVD-Audio Mode:** To select which portion of a hybrid DVD-Audio disc to playback. The options are:
   - **DVD-Audio** – Play the DVD-Audio portion of the disc with surround audio
   - **DVD-Video** – Play the DVD-Video portion of the disc with Dolby Digital or DTS audio

7. **DivX VOD:** Divx Video on Demand – To display the device registration code for DivX Video on Demand service. To learn more, visit www.divx.com/vod

Speaker Setup Page



1. **Down-mix Mode:** To set the audio down-mix mode to convert multi-channel audio into two-channel output. This setting only affects the "Mixed L/R" analog audio outputs. The options are:
   - **Left/Right** - Left and Right channels only. This mode is intended for use with two-channel Dolby Pro Logic receivers. If the content is encoded with Dolby Pro Logic then the encoded audio will be passed to the receiver for Dolby Pro Logic processing. For stereo content the output will be stereo. For multi-channel content only the left front and right front channels will be re-produced.
   - **Stereo** - This mode down-mixes decoded multi-channel (5.1ch) audio to 2-channel stereo output. For stereo content the output will be stereo. For multi-channel content the surround and center channels will be mixed with the left and right front channels. Recommended for use with TV sets or stereo receiver/amplifiers.
   - **V. Surround** - Virtual Surround. This mode creates a virtual surround effect from stereo or multi-channel audio contents.
   - **5.1CH** – This mode enables 5.1ch decoded analog audio output. The number of actual output channels depends on the disc.

2. **Front Speaker:** To set the sound filtering control for the front speakers. The options are:
   - **Large** – Choose if the front speakers are large. Bass frequencies are passed to the front speakers.
   - **Small** – Choose if the front speakers are small. Bass frequencies are not passed to the front speakers to reduce possible distortion.

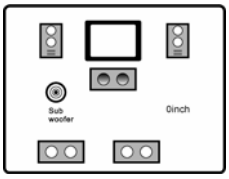
3. **Center Speaker:** To set the sound filtering control for the center speaker. The options are:
   - **Large** – Choose if the center speaker is large. Bass frequencies are passed to the center speaker.
   - **Small** – Choose if the center speaker is small. Bass frequencies are not passed to the center speaker to reduce possible distortion.
   - **Off** – Choose if there is no center speaker.

4. **Rear Speaker:** To set the sound filtering control for the rear speakers. The options are:

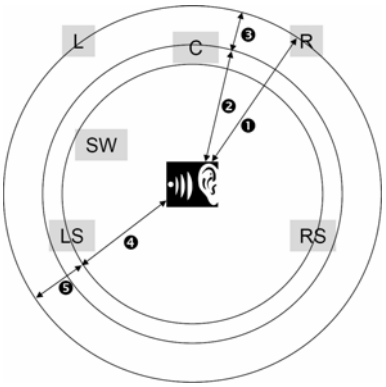
- **Large** – Choose if the rear surround speakers are large. Bass frequencies are passed to the rear speakers.
- **Small** – Choose if the rear surround speakers are small. Bass frequencies are not passed to the rear speakers to reduce possible distortion.
- **Off** – Choose if there are no rear speakers.

5. **Subwoofer**: To enable/disable the subwoofer output. The options are:
   - **On** – Subwoofer output is enabled.
   - **Off** – Subwoofer output is disabled.

6. **Channel Delay:** To set the delay time for the center, rear speakers and the subwoofer. The delay is to compensate for the audio propagation time difference caused by the distance difference of the speakers to the listener.



- Press the UP/DOWN ARROW buttons to select the speaker to set the distance difference.
- Press the LEFT/RIGHT ARROW buttons to set the distance difference.
- Press the SELECT button to confirm the settings and return to the Speaker Setup Page.

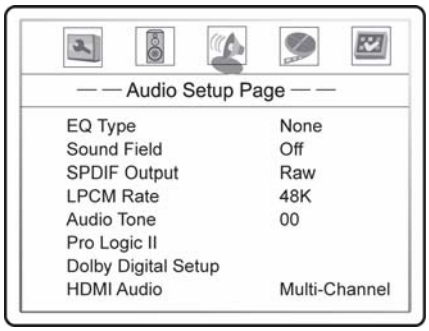


- The channel delay is the difference between the distance from the listener to the front speakers and the distance from the listener to the speaker to be configured. For example, if the distance between the listener and the front main speakers is 60 inches (❶ in the above picture), and the distance between the listener and the center speaker is 48 inches (❷), the channel delay for the center speaker is 12 inches (❶-❷=❸). Similarly, if the left surround speaker is 40 inches (❹) away from the listener, the channel delay for the left surround speaker should be 20 inches (❶-❹=❺).
- Distance between the surround speakers and the listener must be shorter than or equal to that between the front speakers and the listener.
- In case the channel delay settings cannot match your speaker configuration, please set all distance difference to 0 inch and use your receiver/amplifier to set the channel delay.

7. **Channel Trim:** To set the volume of each individual channel.

- Press the LEFT/RIGHT ARROW buttons to select the channel to be adjusted.
- Press the UP/DOWN ARROW buttons to raise or lower the volume of the selected channel.
- Press the SELECT button to confirm the settings and return to the Speaker Setup Page.

Audio Setup Page



1. **EQ Type:** To set the equalization pattern type. Available options are: None, Rock, Pop, Live, Dance, Techno, Classic and Soft.

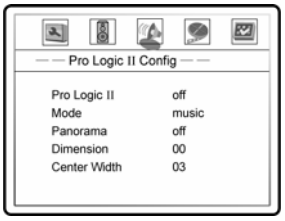
2. **Sound Field:** To set the sound field effect. Available options are: Off, Concert, Living Room, Hall, Bathroom, Cave, Arena and Church.

3. **SPDIF Output:** To set the bit stream type of the digital audio output. The options are:
   - **Raw** – Passes the encoded multi-channel digital audio unaltered. Choose this setting if your receiver/amplifier is capable of decoding Dolby Digital and DTS.
   - **PCM** – Forces down-mixed 2-channel digital audio output. Choose this setting if your receiver/amplifier only supports PCM audio.

4. **LPCM Rate:** To set the maximum Linear PCM output frequency. The options are:
   - **48K** – Supported by most equipment.
   - **96K** – Better sound can result. Ensure that the receiver/amplifier can support it.
   - **192K** – Better sound can result. Ensure that the receiver/amplifier can support it.

5. **Audio Tone**: To raise or lower the tone (key) of the audio. Useful for playing Karaoke discs.
   - Press the SELECT button to show the tone control window.
   - Press the LEFT/RIGHT ARROW buttons to lower or raise the tone.
   - Press the SELECT button to confirm the setting.

6. **Pro Logic II:** To configure the Dolby Pro Logic II function. Dolby Pro Logic II technology can expand 2-channel source audio into full 5-channel surround sound.
   - Pro Logic II is effective only when down-mix is set to 5.1ch and SPDIF output is set to Raw.
   - Press the SELECT button to enter the Pro Logic II setup page.
   - Press the LEFT ARROW button to exit the Pro Logic II setup page.



   A. **Pro Logic II:** To turn on or off the Pro Logic II processing. The options are:

- **On** – Pro Logic II processing is always on
- **Off** – No Pro Logic II processing
- **Auto** – Pro Logic II processing is on only when Dolby Pro Logic II encoded content is detected.

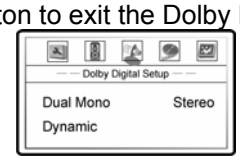
B. **Mode**: To set the processing mode of Pro Logic II. The options are:
- **Music** – Sound from all speakers arrive at the same time with no delay
- **Movie** – 10ms delay is added to the surround channels
- **Pro Logic** – Earlier version of Dolby Pro Logic processing
- **Auto** – Automatically selects processing mode based on content

C. **Panorama**: To turn on/off panorama mode. When turned on, front stereo audio is extended to the surround channels for an enveloping effect.

D. **Dimension**: To increase or decrease the dimensional effect by adjusting the front to rear balance. As the size number increases, the sound localization moves towards forward from backward.

E. **Center Width**: To control the width of the center channel sound effect by blending the center speaker to the left and right speakers. As the level number increases, the center channel sound moves toward the left and right speakers.

7. **Dolby Digital Setup:** To configure the Dolby Digital decoder.
- Press the SELECT button to enter the Dolby Digital Setup page.
- Press the LEFT ARROW button to exit the Dolby Digital Setup page.

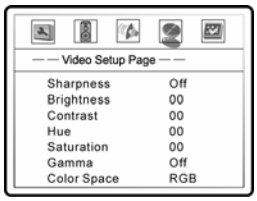


A. **Dual Mono:** To choose the output for Dolby Digital discs encoded with two independent audio channels, such as bilingual programs. The options are:
- **Stereo** – Stereo output
- **L-Mono** – Left channel output to both Left and Right speakers.
- **R-Mono** – Right channel output to both Left and Right speakers.
- **Mix Mono** – Left and Right channels mixed to both Left and Right speakers.

B. **Dynamic**: To set the Dynamic Range Compression (DRC). DRC can smooth out the sonic peaks and valleys common with wide-range digital audio. Increasing DRC may make low level audio more audible during low-level listening. Decreasing or turning off DRC restores the sonic energy present in the original recording.

8. **HDMI Audio**: To select digital audio output from the HDMI port. The options are:
- **Multi-Channel** – Digital audio output via HDMI will be multi-channel PCM format. The Down-mix setting in the "Speaker Setup Page" will affect whether and how multi-channel audio content will be down-mixed to stereo. When this option is selected, compressed audio bit streams will decoded by the DVD player.
- **SPDIF** – Digital audio output via HDMI will be the same as the SPDIF (digital coaxial/optical audio) output. The SPDIF setting will affect whether 2-channel PCM or raw compressed bit streams will be carried over via HDMI. When this option is selected and SPDIF is set to "Raw", the TV or HDMI A/V receiver must decode compressed audio formats. (Copyright protection on some DVD-Audio and Super Audio CD discs may prevent audio output via HDMI with this setting.)
- **Off** – No digital audio output via HDMI.

Video Setup Page



1. **Sharpness:** To set the sharpness of video output. Sharpness level can be set with the following options:
   - **Sharp** – Enable edge enhancement. Video details are the sharper. May cause slight white line etching around objects.
   - **Soft** – Soften edges. Video appears to be smoother but may cause slight loss of details.
   - **Off** – Turn off edge enhancement completely.

2. **Brightness**: To adjust the brightness (black level) of the video output.
   - Press the SELECT button to show the Brightness scale, and then use the LEFT/RIGHT ARROW buttons to adjust.
   - Press the SELECT button to confirm the new setting.

3. **Contrast**: To adjust the contrast (white level) of the video output.

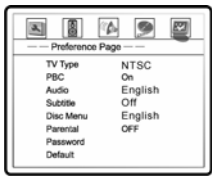
4. **Hue**: To adjust the hue (tint) of the video output.

5. **Saturation**: To adjust the saturation (color intensity level) of the video output.

6. **Gamma**: To adjust the Gamma (intensity distribution to video signal level) of the video output. The available settings are High, Medium, Low and Off.

7. **Color Space**: To select the color space for the HDMI output. The available options are:
   - **Auto** – Allows the DVD player to automatically select the best color space based on capability information collected from the TV display. This is the preferred selection.
   - **YCbCr 4:4:4 –** Forces YCbCr 4:4:4 color space. If you select this option please make sure that your TV is configured to accept YCbCr 4:4:4 signals, otherwise the video color will be incorrect.
   - **RGB** – Forces RGB color space. If you select this option please make sure that your TV is configured to accept RGB signals, otherwise the video color will be incorrect.

Preference Page



The Preference Page can only be accessed when playback is completely stopped, or when there is no disc in the DVD player.

1. **TV Type:** To set the output video system (PAL/NTSC) to match the type of TV. The options are:

- **Auto** – No system conversion is performed. The output video system is the same as that encoded on the disc. Requires TV that supports multi-systems.
- **PAL** – When playing PAL-encoded discs, no system conversion is performed. NTSC-encoded contents are converted to PAL output.
- **NTSC** – When playing NTSC-encoded discs, no system conversion is performed. PAL-encoded contents are converted to NTSC output.

2. **PBC** – Play Back Control: To enable/disable play back control by disc contents. The options are:
   - **On** – If the disc contains Play Back Control, follow the disc instructions.
   - **Off** – Play back the contents by sequence.

3. **Audio**: To set the preferred audio language for DVD. If an audio track of the selected language is available on the disc, the audio track will be played back.

4. **Subtitle**: To set the preferred subtitle language for DVD. If a subtitle of the selected language is available, it will be displayed. When "Auto" is selected, the subtitle display is decided by the disc.

5. **Disc Menu**: To set the preferred language for displaying DVD disc menus. If a disc menu of the selected language is available, the menu will be shown instead of the default disc menu.

NOTES

If your preferred language is not listed in the Audio, Subtitle or Disc Menu options, select "Other" and enter the Language Code found on page 36 of this manual.

6. **Parental Control**: To set parental control ratings in order to prevent minors from watching inappropriate contents. This function requires that the disc being properly rated and encoded.
   - Press the SELECT button to bring up the rating selection menu.
   - Press the UP/DOWN ARROW buttons to select the rating to allow. The selected rating and below will be allowed, and any rating above the selected will be blocked.
   - Press the SELECT button to confirm the selection. You will be asked for the parental control password. Enter the password (default password: 7890) and press the SELECT button.

7. **Password**: To set parental control password. To change the password, enter the old password (default: 7890) and then enter a 4-digit number as the new password. Enter the new password again to confirm, and then press the SELECT button.

8. **Default**: To reset all settings to the factory default value. The parental control password will not be reset.

REFERENCES

Useful Notes

- In order to prolong the service life of your DVD player, it is recommended to wait at least 30 seconds before you turn it on again after switching it off.
- Remove disc and turn off power after operation.
- Some functions of the player may not be applicable to certain discs.
- Some discs with special features may not be fully supported by the player. This is not a malfunction of the unit.
- In case of player malfunctioning, please turn it off, wait for 30 seconds and turn it back on. If the problem still exists, please follow the troubleshooting instructions or contact an OPPO service center.

Troubleshooting

Use this chart to help you solve operational problems. If there are any problems that you cannot solve, please contact your OPPO service center.

Symptom	Possible Cause	Solution	Reference Page
No sound	Audio cable is not properly connected	Check audio cable, and then reconnect if necessary.	7 - 11
	Muting is activated	Press the MUTE button to cancel the mute.	13
	DVD-Audio or SACD is played and the audio connection is coaxial or optical digital audio	This is not supported due to copyright restrictions of DVD-Audio and SACD. Please use the analogue 5.1-channel audio output.	11
No picture	Video cable is not properly connected	Check video cable, then reconnect if necessary	7 - 8
	TV input is not correctly selected	Select the input to which the DVD player is connected	
	Video output format is not support by the TV	When playback is completely stopped, repeatedly press the HDMI button	16
	Video system is not supported by the TV	Press the P/N button or set the correct TV Type.	16, 32
No color	Video system is not supported by the TV	Press the P/N button or set the correct TV Type	16, 32
	Saturation set too low	Check the saturation setting on TV and DVD player	32
Picture rolling	Video system is not supported by the TV	Press the P/N button or set the correct TV Type	16, 32
“No Disc” error	No disc or incompatible disc loaded in player	Eject disc and check	12
	Disc not properly loaded	Eject disc and make sure the label side is facing up and the record side is facing down	12
	Condensation on the Laser pick-up head	Turn on the player, eject the disc and leave the player on for about an hour	2
Remote control failure	Remote control is out of range	Use the remote control within the effective range	6
	Low battery	Replace the batteries	6
Temporary function failure	Scratched or damaged disc is used	Replace the disc	12
	Some functions are not available during playback	Stop playback completely, then try again	12
	Interference from other devices	Identify interference by turning off other devices, and then relocate or replace the offending device	2

Specifications

Designs and specifications are subject to change without notice.

Disc Types*	DVD-Video, DVD-Audio, SACD, CD, HDCD, Kodak Picture CD DivX (DivX Certified Home Theater Profile Parameters, V2.2. Covers DivX 3.11 – 5.1) CD-R/RW, DVD±R/RW, DVD+R DL
Output	Analog Audio: Stereo, 5.1ch Digital Audio: Coaxial, Optical Analog Video: Composite, S-Video (Y/C), Component Video (Y/Pb/Pr, 480i/480p) Digital Video: HDMI with HDCP (480i/480p/720p/1080i)
Video Characteristics	Composite Video Amplitude: 1.0Vp-p (75Ω) S-Video Amplitude: Y: 1.0Vp-p (75Ω), C: 0.286Vp-p (75Ω) Component Video: Y: 1.0Vp-p (75Ω), Pb/Pr: 0.7Vp-p (75Ω)
Audio Characteristics**	Frequency: 20Hz – 20kHz (±1dB) Signal-to-Noise Ratio: >100dB Total Harmonic Distortion: < 0.01%
General Specification	Power Supply: ~ 100V – 240V, 50/60Hz AC Power Consumption: 14W Dimensions: 420mm x 255mm x 41mm, 16½ x 10 x 1⅝ inches Mass: 2.2kg / 4.85 lbs
Operating Temperature	5°C - 35°C 41°F - 95°F
Operating Humidity	15% - 75% No condensation

* Compatibility with user-encoded contents or user-created discs is on a best effort basis with no guarantee due to the variation of media, software and techniques used.

**Nominal specification.

Language Code List

Code	Language Name
6565	Afar
6566	Abkhazian
6570	Afrikaans
6577	Ameharic
6582	Arabic
6583	Assamese
6588	Aymara
6590	Azerbaijani
6665	Bashkir
6669	Byelorussian
6671	Bulgarian
6672	Bihari
6678	Bengali, Bangla
6679	Tibetan
6682	Breton
6765	Catalan
6779	Corsican
6783	Czech
6789	Welsh
6865	Danish
6869	German
6890	Bhutani
6976	Greek
6978	English
6979	Esperanto
6983	Spanish
6984	Estonian
6985	Basque
7065	Persian
7073	Finnish
7074	Fiji
7079	Faroese
7082	French
7089	Frisian
7165	Irish
7168	Scots Gaelic
7176	Galician
7178	Guarani
7185	Gujarati
7265	Hausa
7273	Hindi
7282	Croatian

Code	Language Name
7285	Hungarian
7289	Armenian
7365	Interlingua
7378	Indonesian
7383	Icelandic
7384	Italian
7387	Hebrew
7465	Japanese
7473	Yiddish
7487	Javanese
7565	Georgian
7575	Kazakh
7576	Greenlandic
7577	Cambodian
7578	Kannada
7579	Korean
7583	Kashmiri
7585	Kurdish
7589	Kirghiz
7665	Latin
7678	Lingala
7679	Laothian
7684	Lithuanian
7686	Latvian,Lettish
7771	Malagasy
7773	Maori
7775	Macedonian
7776	Malayalam
7778	Mongolian
7779	Moldavian
7782	Marathi
7783	Malay
7784	Maltese
7789	Burmese
7865	Nauru
7869	Nepali
7876	Dutch
7879	Norwegian
7982	Oriya
8065	Panjabi
8076	Polish
8083	Pashto, Pushto

Code	Language Name
8084	Portuguese
8185	Quechua
8277	Rhaeto-Romance
8279	Romanian
8285	Russian
8365	Sanskrit
8368	Sindhi
8372	Serbo-Croatian
8373	Singhalese
8375	Slovak
8376	Slovenian
8377	Samoan
8378	Shona
8379	Somali
8381	Albanian
8382	Serbian
8385	Sundanese
8386	Swedish
8387	Swahili
8465	Tamil
8469	Telugu
8471	Tajik
8472	Thai
8473	Tigrinya
8475	Turkmen
8476	Tagalog
8479	Tonga
8482	Turkish
8484	Tatar
8487	Twi
8575	Ukrainian
8582	Urdu
8590	Uzbek
8673	Vietnamese
8679	Volapuk
8779	Wolof
8872	Xhosa
8979	Yoruba
9072	Chinese
9085	Zulu

LIMITED WARRANTY

OPPO Digital, Inc. Limited One Year Warranty

Your OPPO product has been manufactured to precise standards, and with rigid quality control through every process of manufacturing. It is warranted by OPPO DIGITAL, INC. against defective workmanship or materials for one (1) full year from the original date of purchase. This warranty applies only to OPPO brand products imported or manufactured by OPPO Digital, Inc. and sold to the original consumer purchaser in the U.S.A. or Canada by either OPPO Digital, Inc. or an OPPO authorized reseller. This warranty does not apply to OPPO brand products imported and sold by unauthorized dealers, distributors, or other sellers. This warranty does not apply to products purchased or shipped outside of the U.S.A. and Canada. OPPO Digital, Inc. may at its sole discretion, refuse to honor the warranty of any such unauthorized product that may be presented for service.

Warranty service can only be performed by OPPO Digital, Inc. or an OPPO authorized service center. The original dated bill of sale must be presented upon request as proof of purchase.

OPPO Digital, Inc. will, at its option and at no charge as stipulated herein, repair or replace product which is returned either in person or postpaid and insured to an OPPO service center, with new or reconditioned parts or products. Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer.

This limited warranty covers noncommercial use of this product, and shall not apply to the following, including, but not limited to: applications and uses for which this product was not intended; altered product or serial numbers; cosmetic damage or exterior finish; batteries and cable accessories; accidents, abuse, neglect, fire, water, lightning or other acts of nature; incorrect electrical line voltage, fluctuations and surges; failure to follow operating or maintenance instructions. OPPO Digital, Inc. does not warrant uninterrupted or error-free operation of the product. This limited warranty shall not extend to anyone other than the original purchaser of the product. It is nontransferable and states your exclusive remedy.

THE FOREGOING WARRANTY IS THE ONLY WARRANTY WITH RESPECT TO THE PRODUCT AND OPPO DIGITAL, INC. MAKES NO OTHER WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, REGARDING THE PRODUCT INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL OPPO DIGITAL, INC. OR ITS AUTHORIZED RESELLERS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF SUCH DAMAGES RESULT FROM NEGLIGENCE OR OTHER FAULT.

Some states do not allow limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

TO REGISTER YOUR PURCHASE FOR WARRANTY, please visit the following Web site:

http://www.oppodigital.com/registration.asp

TO OBTAIN WARRANTY SERVICE, please follow these instructions:

- Contact OPPO customer service via email at service@oppodigital.com or by phone at (650) 961-1118 with details of the defect claimed, product model, serial number, date and place of the original purchase.

- If it is determined that your product needs service, a Return Merchandise Authorization (RMA) number will be issued to you along with return instructions and address of an OPPO service center.

- Pack the product securely, preferably in the original packaging, with your assigned RMA number marked clearly on the outside of the package. Send the package postpaid and insured to the OPPO service center to obtain warranty service.

Thank you for choosing OPPO. Your satisfaction is our highest priority.

OPPO Digital, Inc.
453 Ravendale Dr. Suite D
Mountain View, CA 94043, U.S.A.

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DVD PLAYER

DV-970HD

ADVANCED SETUP GUIDE

A SUPPLEMENT TO THE USER MANUAL

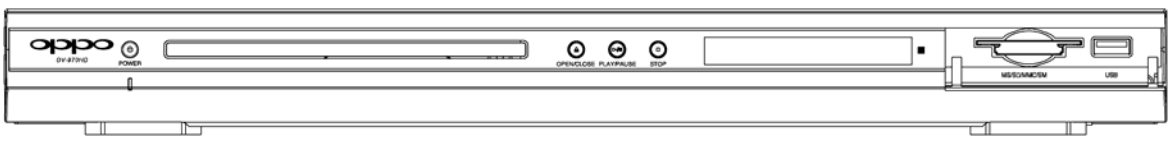


Table of Contents

Table of Contents 1
HOW TO USE THIS GUIDE 2
Using the DVD Setup Menu System 3
SETTING UP THE PLAYER: BASICS 4
Use the Best Available Video Connection 4
Determine Your Display Type 4
Use the Best Available Audio Connection 6
Connections for Most CD or DVD Playback 6
But, Wait – I Have HDMI! 7
Connections for Non-Dolby Digital/DTS Receivers, DVD-Audio and SACD 8
SETTING UP THE PLAYER: ADVANCED 9
Setup Menu Options 9
Entering the Setup Menu System 9
General Setup Page 10
Speaker Setup Page 11
Audio Setup Page 14
Video Setup Page 16
Preference Page 18

HOW TO USE THIS GUIDE

This guide is written in a very procedural manner. Unlike most User Manuals which read like dictionaries and are only *slightly* less interesting, OPPO was kind enough to allow us to contribute to a “kindler and gentler” Setup Guide that takes you through the setup process the way we do it – almost every week of our lives.

So, forget what you know. If you want to learn how to point a remote control, put in batteries, or find out that it’s bad to leave a DVD player out in the rain, read the standard User Manual. If you want to explore the DV-970HD and get it up and running on your system in the best way possible… read on.

- Clint DeBoer
Editor-in-Chief, Audioholics.com

Tech Note

Watch out for these tech notes along the way to help you get the most out of your DVD player purchase. Following these notes can mean the difference between a good picture and a GREAT picture!

Using the DVD Setup Menu System

In many places of this guide, the DVD player's Setup Menu needs to be adjusted to match your specific audio/video configuration. To access the DVD player's Setup Menu simply press the **SETUP** button on the remote control when the disc is stopped. When asking you to make menu adjustments, we will use the following terminology to indicate the location of the desired function:

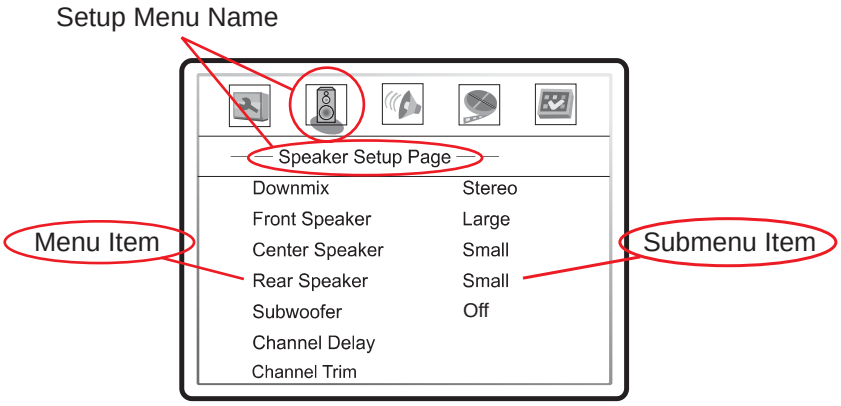
Setup Menu Name > Menu Item > Submenu Item (or Selection)

Setup Menu Name is the actual name of the uppermost setup menu level. With the OPPO DV-970HD there are exactly five (5) Setup Menu pages or sections, each represented by an icon on the top of the Setup Menu screen. They are: **General Setup Page, Speaker Setup Page, Audio Setup Page, Video Setup Page,** and **Preference Page.**

Menu Item is the parameter to be adjusted which appears below the **Top Menu Name**. It is the list of items on the left of the current Setup screen.

Submenu Item (or the selection) is the actual numeric or descriptive element that represents the change being made to the selected parameter. It is the item located to the immediate right of its corresponding **Menu Item**.

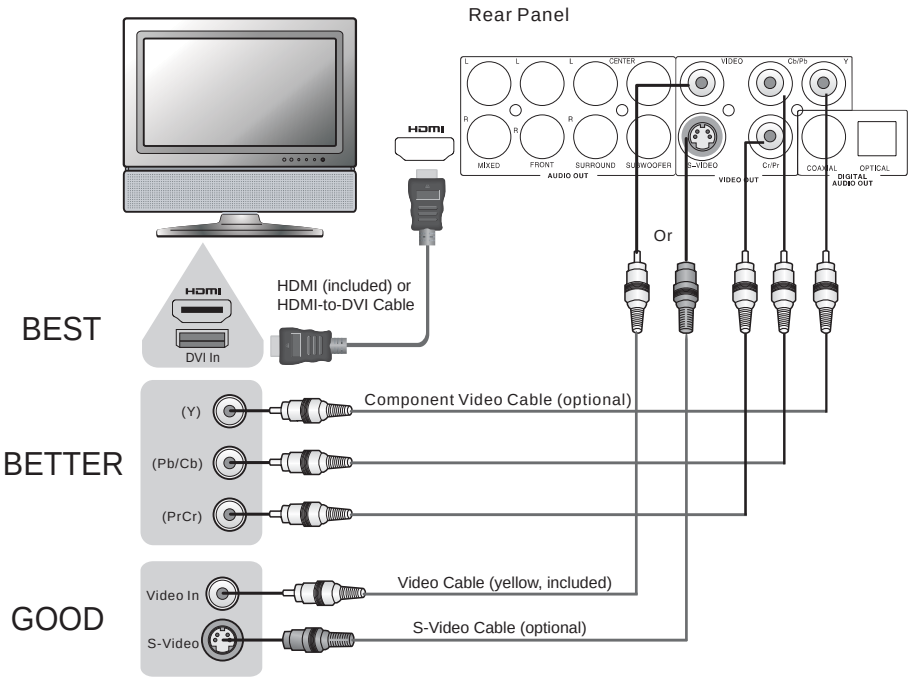
This diagram should give a good description of the various elements and their context. In this screen we could, for example, instruct you to set the **Rear Speaker** parameter to **Small** in the **Speaker Setup Page**. To indicate where we were, you would see the following: **Speaker Setup Page > Rear Speaker > Small**.



SETTING UP THE PLAYER: BASICS

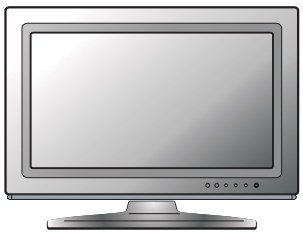
Follow these simple steps to successfully set up your player for use in your system

Use the Best Available Video Connection



If an HDMI or DVI connection is present on your television or display, use it. The OPPO DVD player has an HDMI (digital) video output which presents the highest possible resolutions and video quality. If the television you are using has only component video inputs, then select a component video cable (it has three RCA-style connections on each end typically colored red, green, and blue). If your television is older and has neither of these inputs you may use s-video (a special 4-pin cable) or composite (typically a single yellow RCA-style cable).

Determine Your Display Type



Widescreen, or 16:9 TV

Standard Definition, or 4:3 TV

For best performance, your Oppo DVD player must be correctly configured for playback even before the first disc is inserted. This is done under **General Setup Page > TV Display** in the Setup Menu.

If you have a widescreen (16:9) display as pictured on the left, select one of these options:

- **16:9 Wide** – 16:9 (widescreen) sources will be displayed in their native aspect ratio, and 4:3 sources will be stretched.
- **16:9 Wide/SQZ** – 16:9 (widescreen) as well as 4:3 sources will be displayed in their native aspect ratio. Please note that in this mode 4:3 sources will be displayed with black borders on both sides to maintain the correct 4:3 aspect ratio.

Tech Note		If you are using a plasma or widescreen CRT display you will want to avoid leaving black bars on the screen for any length of time as you may encounter temporary burn-in where the display retains memory of the "used" part of screen and the unused (black bar) portions are clearly defined on the screen during subsequent viewing sessions. The "16:9 Wide" mode is the best choice for these types of displays.

If you have a 4:3 or standard definition screen as pictured on the right, select one of these options:

- **4:3 Pan/Scan** – 4:3 TV Pan and Scan. Choose when the display is 4:3. Both sides of a widescreen image are clipped (you lose about 30% of the picture).
- **4:3 Letterbox** – 4:3 TV Letterbox. Choose when the display is 4:3. Widescreen image is displayed in "letterbox" format with black borders on top and bottom (preferred).

Notes When Using HDMI

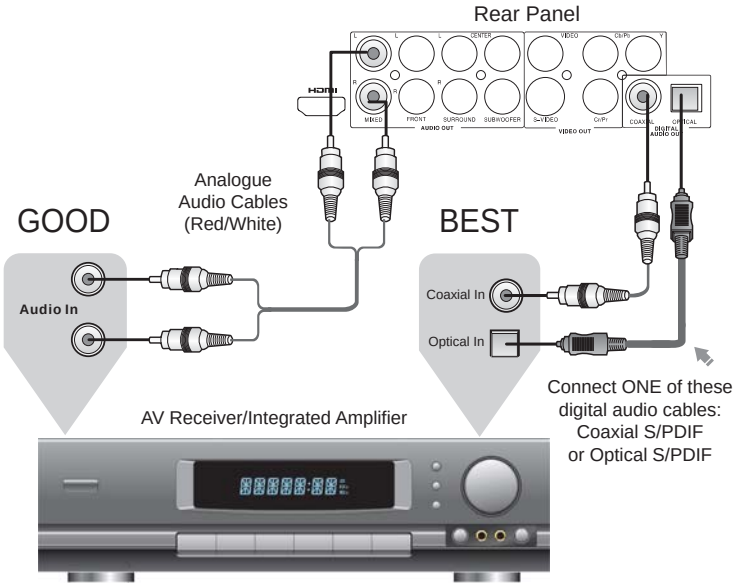
- If your AV receiver or display has an HDMI input, you can use the included HDMI cable to connect the DVD player to the TV. This is the most preferred connection method as it provides a pure digital connection for video signal and, depending upon your system, can also deliver high resolution digital audio over the same cable.

- When playback is completely stopped, use the "HDMI" button on the remote control to switch the video output resolution. Select the resolution that produces the best picture quality on your TV. For most flat panels and DLP™, LCD or LCoS (SXRD™, D-ILA™) rear projection televisions this will be 720p. For CRT rear projection televisions this will likely be 1080i. For non HD displays (very rare if they have HDMI or DVI) this will be 480p.

- If the HDMI input of your TV is only capable of decoding 2-channel digital audio, it is recommended that you set **Speaker Setup Page > Down-mix** to **"Stereo"**. This sets the audio down-mix mode of the DVD player to "Stereo".

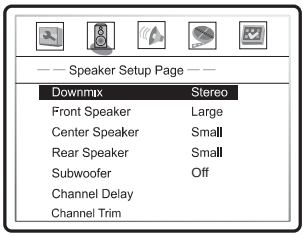
Use the Best Available Audio Connection

Connections for Most CD or DVD Playback

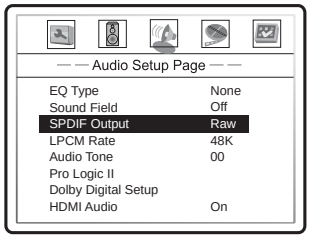


If at all possible you will want to connect audio using digital cables (either coaxial S/PDIF or optical S/PDIF). If your receiver or integrated amplifier does not have Dolby Digital or DTS capability (for instance, an older Pro Logic model) then you should connect the "Mixed" stereo output of the OPPO DVD player to your receiver or integrated amplifier (and immediately start saving for an upgrade!) Setting up, you have the following choices:

- **No Surround Speakers:** If the audio system *does not* have surround speakers, please use the analogue RCA-style cables and set the **Speaker Setup Page > Down-mix** to **"Stereo"** or **"V. Surround"**.
- **Surround, But No Dolby Digital or DTS Support:** If the audio system has surround speakers and Dolby Pro Logic Surround support, please use the analogue RCA-style cables set the **Speaker Setup Page > Down-mix** to **"Left/Right"**.
- **Surround Speakers and/or DTS and/or Dolby Digital Support:** If your receiver supports Dolby Digital and/or DTS then please use a digital coaxial or optical cable and set the **Audio Setup Page > SPDIF Output** to **"Raw"**. No additional audio cables will be needed unless you listen to SACD (see below).



Speaker Setup Page > Downmix*
settings: Left/Right, Stereo, V.Surr, 5.1CH
*does not affect digital player outputs



Audio Setup Page > SPDIF Output*
settings: Raw, PCM
*does not affect analogue player outputs

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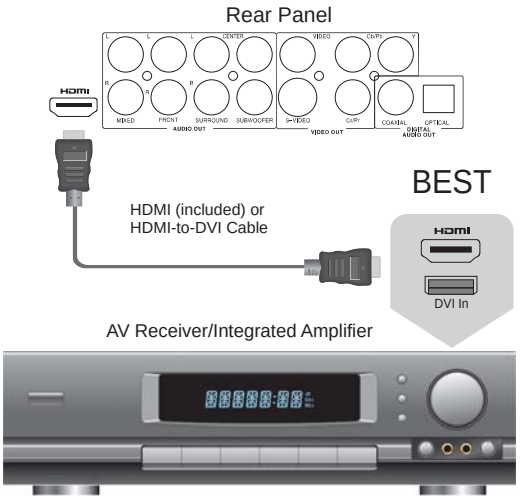
But, Wait – I Have HDMI!



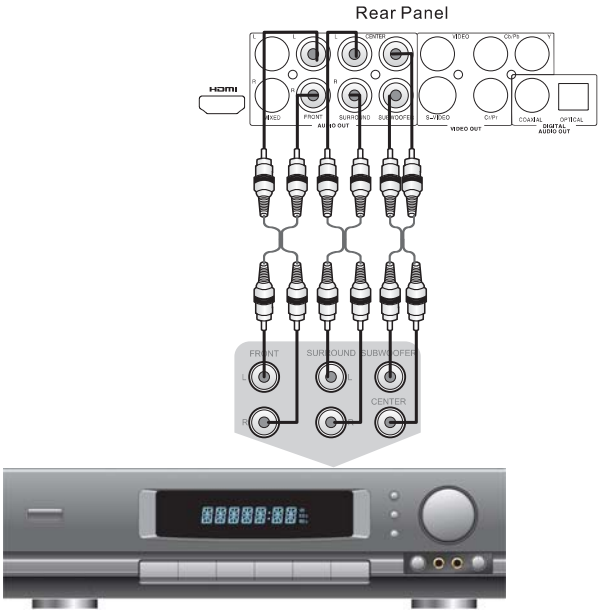
HDMI can transmit both audio AND video signals over a single cable. If you have an HDMI-capable display or, better yet, an HDMI-capable receiver that can support HDMI audio, you are in luck. Simply run an HDMI cable from the OPPO DVD player to your display or receiver and enable HDMI audio (if necessary) on that device (see your receiver or display's owners' manual for more information). You are now equipped to send all current audio formats to your display or receiver.

Tech Note		HDMI is a wonderful thing. A single cable can transport both audio AND video from your DVD player to your display. Be aware, however, that HDMI is an evolving standard, and there could be compatibility issues. The OPPO DV-970HD supports HDMI 1.1 audio. A receiver that supports HDMI 1.1 is required in order to play multi-channel audio for all formats, including DVD-Video/Audio and SACD (SACD DSD audio converted to multi-channel PCM). If the receiver supports HDMI 1.0 only, DVD-Audio and SACD will NOT be able to be sent via HDMI. To utlize DVD-Audio or SACD, please see next section for multi-channel analogue audio connection.

To get the best possible audio via HDMI, you may need to set the following options on the DVD player's setup menu, depending on your HDMI-capable receiver/display configuration:

- **No Surround Speakers (such as a TV):** If the receiver or TV *does not* have surround speakers, please set the **Speaker Setup Page > Down-mix** to **"Stereo"** or **"V. Surround"**. Also set the **Audio Setup Page > HDMI Audio** to "**Multi-Channel**". Alternatively, you may set **Audio Setup Page > HDMI Audio** to "**SPDIF**" and **Audio Setup Page > SPDIF Output** to "**PCM**".
- **Surround and Dolby Digital or DTS Support, or HDMI 1.0:** If the audio system has surround speakers and can support Dolby Digital or DTS with its HDMI input, please set **Audio Setup Page > HDMI Audio** to "**SPDIF**" AND **Audio Setup Page > SPDIF Output** to "**Raw**". In this case your audio system will perform decoding for Dolby Digital or DTS surround audio. Unfortunately the HDMI standard does not allow DVD-Audio or SACD to be sent over HDMI in this configuration.
- **Surround Speakers and HDMI 1.1 Multi-Channel PCM Audio Support:** If your receiver supports HDMI 1.1 Multi-Channel PCM audio, please set **Speaker Setup Page > Down-mix** to **"5.1 CH"** and **Audio Setup Page > HDMI Audio** to "**Multi-Channel**". In this configuration you can enjoy all audio formats using the HDMI connection. The DVD player performs decoding for compressed audio.

Connections for Non-Dolby Digital/DTS Receivers, DVD-Audio and SACD



Receiver/Amplifier with 5.1ch Audio Input

Dolby Pro Logic Receivers
If you have an older Dolby Pro Logic surround receiver that does not support Dolby Digital or DTS but has multi-channel inputs, you **will** want to connect the 6 analogue outputs of the OPPO DVD player to the analogue multi-channel inputs of your receiver. To do this you must:

- Use six (6) analogue RCA-style cables and set the **Speaker Setup Page > Down-mix** to **"5.1CH"**.
- Enable or select the multi-channel analogue inputs on your receiver

This is absolutely worth it if you haven't yet upgraded your receiver. Truly discrete audio channels are a wondrous thing, so enjoy them if you can.

SACD or DVD-Audio Playback
To utilize SACD or DVD-Audio* you will also need to connect six (6) analogue RCA-style cables from the OPPO DVD player to your receiver's multi-channel analogue inputs. These multi-channel outputs will also support playback of DVD-Audio, DTS, Dolby Digital and stereo sources. Here are some general notes and guidelines to following depending upon what formats you intend to play:

- **No DVD-Audio or SACD:** Use HDMI or one of the digital cable connection choices if you do not intend to use SACDs or DVD-Audio discs in your system.
- **DVD-Audio But No SACD:** Use HDMI if you have a receiver that handles HDMI audio and multi-channel outputs if you do not. To do this you must have a receiver with available multi-channel inputs. Set the **Speaker Setup Page > Down-mix** to **"5.1CH"**.
- **DVD-Audio and SACD:** Use HDMI if you have a receiver that handles HDMI audio and the analogue audio outputs for SACD. To do this you must have a receiver with available multi-channel inputs. Set the **Speaker Setup Page > Down-mix** to **"5.1CH"**.

*DVD-Audio and SACD (DSD converted to PCM) can also be played back via HDMI to a receiver which supports HDMI 1.1 audio. "DVD-Audio" is a high resolution PCM-based format and is not to be confused with the Dolby Digital or DTS audio found on normal DVDs.

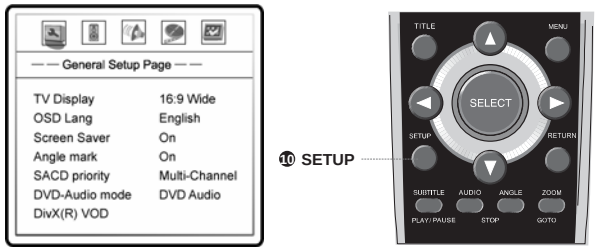
SETTING UP THE PLAYER: ADVANCED

Setup Menu Options

The following is an advanced tour of the Setup Menu options which enables control over how your DVD player functions in various situations and with various program material and hardware. The OPPO DV-970HD DVD player comes with a “safe” default configuration, so you should get performance out of your player even if you don’t touch the Setup Menu system. For those of you wanting to understand more and really tweak your settings, read on…

Entering the Setup Menu System

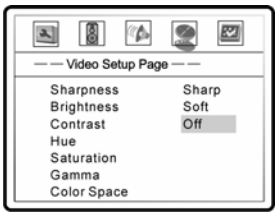
1. Press the SETUP button on the remote control, and the TV screen displays:



2. Press the LEFT/RIGHT ARROW buttons to select the setup page. There are 5 pages: **General Setup**, **Speaker Setup**, **Audio Setup**, **Video Setup**, and **Preference**. Press the SELECT button to enter the selected setup page. The **Preference** page can only be accessed when playback is completely stopped, or when there is no disc in the player.

3. Press the UP/DOWN ARROW buttons to select the setup item to be changed, and press the SELECT button to change the setting. Grayed-out setup items cannot be changed. To allow changing of such items, make sure the item is applicable, that playback is completely stopped, and/or there is no disc in the player.

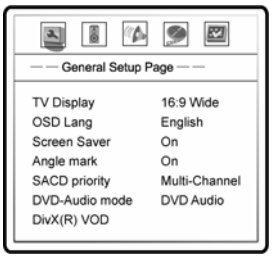
   For example, in the Video Setup Page (below), you may use the UP/DOWN ARROW buttons to select the “Contrast” setup item, and press the SELECT button to change the “Contrast” setting.



4. To select a value from the list of available settings, press the UP/DOWN ARROW buttons and then press the SELECT button to confirm.

5. To exit the SETUP menu, press the SETUP button on the remote control.

General Setup Page



1. **TV Display**: This is a primary setting and is addressed in the **Setting Up the Player: Basics** section. To set the aspect ratio of the DVD player's output image to match your TV, select from the following:

   - **16:9 Wide** – 16:9 (widescreen) sources will be displayed in their native aspect ratio, and 4:3 sources will be stretched.
   - **16:9 Wide/SQZ** – 16:9 (widescreen) as well as 4:3 sources will be displayed in their native aspect ratio. Please note that in this mode 4:3 sources will be displayed with black borders on both sides to maintain the correct 4:3 aspect ratio.
   - **4:3 Pan/Scan** – 4:3 TV Pan and Scan. Choose when the display is 4:3. Both sides of a widescreen image are clipped (you lose about 30% of the picture).
   - **4:3 Letterbox** – 4:3 TV Letterbox. Choose when the display is 4:3. Widescreen image is displayed in "letterbox" format with black borders on top and bottom (preferred).

DVD Content	TV Screen Appearance			
	4:3		16:9	
	Pan-Scan	Letterbox	Wide	Wide/SQZ
4:3					
16:9					

2. **OSD Lang (English)**: English is the only available language for the US version of this player.

3. **Screen Saver (on/off)**: To turn on/off the screen saver function. When the screen saver is on, a moving logo will appear instead of the static image after 2 minutes of inactivity. This is designed to minimize the burn-in issue for plasma and CRT display devices.

4. **Angle Mark (on/off)**: To turn on/off the display of angle mark when DVD content with multiple available angles is played.

5. **SACD Priority:** To select which audio tracks to play for SACD (Super Audio CD). The options are:

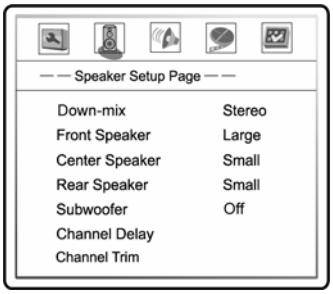
   - **Multi-Channel** – Play the multi-channel surround audio
   - **2-Channel** – Play the 2-channel stereo audio
   - **CD MODE** – Play the CD layer of a hybrid SACD disc

6. **DVD-Audio Mode:** To select which portion of a hybrid DVD-Audio disc to playback. The options are:

   - **DVD-Audio** – Play the DVD-Audio portion of the disc with surround audio
   - **DVD-Video** – Play the DVD-Video portion of the disc with Dolby Digital or DTS audio

7. **DivX VOD:** Select this to display the device registration code for DivX Video on Demand service (also exits the Setup Menu). To learn more, visit www.divx.com/vod

Speaker Setup Page



1. **Down-mix Mode:** This sets the audio down-mix mode to convert multi-channel audio into two-channel output. This setting only affects the "Mixed L/R" analogue audio outputs. The options are:

   - **Left/Right** - Left and Right channels only. This mode is intended for use with two-channel Dolby Pro Logic receivers. If the content is encoded with Dolby Pro Logic then the encoded audio will be correctly preserved and passed to the receiver for Dolby Pro Logic processing. For stereo content the output will be stereo.
   - **Stereo** - This mode down-mixes decoded multi-channel (5.1ch) audio to 2-channel stereo output. For stereo content the output will be stereo. For multi-channel content the surround and center channels will be mixed with the left and right front channels. Recommended for use with TV sets or stereo receiver/amplifiers.
   - **V. Surround** - Virtual Surround. This mode creates a virtual surround effect from stereo or multi-channel audio contents.
   - **5.1CH** – This mode enables 5.1ch decoded analogue audio output. The number of actual output channels depends on the disc. **Note:** For multi-channel content, only the left front and right front channels will be re-produced from the Down-mix outputs. If you are using two speakers and don't hear dialogue or vocals, double check that this mode is not engaged.

Analogue Multi-Channel Output Settings
The following settings only affect the analogue multi-channel outputs, not the digital coaxial or optical outputs of the DVD player. We recommend using the analogue multi-channel outputs of this player only when you are playing SACD or DVD-Audio discs and/or cannot utilize HDMI or the digital audio outputs with your audio system.

2. **Front Speaker:** To set the sound filtering control for the front speakers. The options are:

    - **Large** – Choose if the front speakers are full range (reproduce down to at least 40Hz) and if you do not have a subwoofer. Bass frequencies are passed to the front speakers.
    - **Small** – Choose if the front speakers are not "full range" speakers (almost all speakers qualify to be "small"). Bass frequencies are not passed to the front speakers to reduce possible distortion. This is the preferred setting for all systems utilizing a subwoofer.

3. **Center Speaker:** To set the sound filtering control for the center speaker. The options are:

    - **Large** – Choose if the center speaker is full range (reproduces down to at least 40Hz) and if you do not have a subwoofer. Bass frequencies are passed to the center speaker.
    - **Small** – Choose if the center speaker is not a "full range" speakers (almost all center channels qualify to be "small"). Bass frequencies are not passed to the front speakers to reduce possible distortion. This is the preferred setting for all systems utilizing a subwoofer.
    - **Off** – Choose if there is no center speaker. This sends Center Speaker information to the Front Speaker outputs.

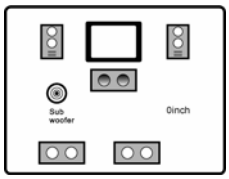
4. **Rear Speaker:** To set the sound filtering control for the rear speakers. The options are:

    - **Large** – Choose if the rear/surround speakers are full range (reproduce down to at least 40Hz) and if you do not have a subwoofer. Bass frequencies are passed to the rear speakers.
    - **Small** – Choose if the rear/surround speakers are not "full range" speakers (almost all speakers qualify to be "small"). Bass frequencies are not passed to the rear speakers to reduce possible distortion.
    - **Off** – Choose if there are no rear speakers. This sends Rear Speaker information to the Front Speaker outputs.

5. **Subwoofer**: To enable/disable the Subwoofer output. The options are:

    - **On** – Subwoofer output is enabled.
    - **Off** – Subwoofer output is disabled.

6. **Channel Delay:** This feature, which is displayed in inches, sets the delay time for the Center and Rear speakers as well as the Subwoofer. The delay is to compensate for differences between the distance of the Front speakers to the listening position, and the distances measured by the other speakers in the system (Center, Surrounds and Subwoofer).

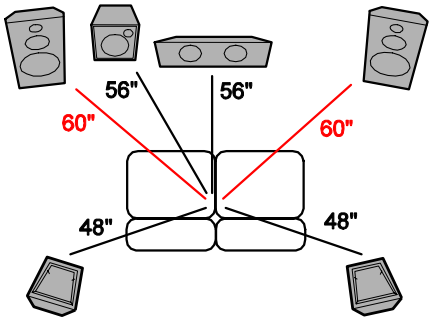
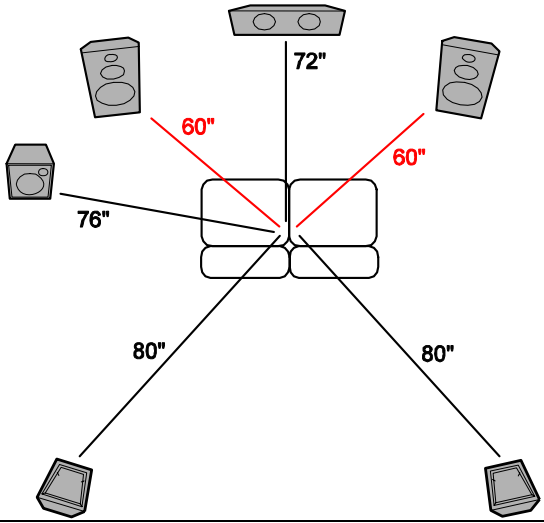


    - Measure the distance (in inches) from the primary listening position to the Front Left Speaker. This is your baseline measurement – the primary distance that will determine the adjustments

for your system. Your Front Right and Left speakers should measure the same distance. If they do not, please adjust them if possible.

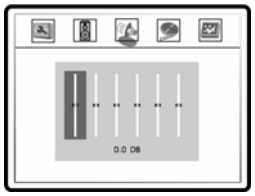
- Press the UP/DOWN ARROW buttons to select the first speaker to configure.
- Measure the distance (in inches) from that speaker to the listening position. If it is LESS than the distance to the Front Left speaker, enter the difference (as close as possible) in inches using the LEFT/RIGHT ARROW buttons. If it is GREATER than the distance to the Front Left speaker, then leave the value at 0.
- Repeat for each speaker in the system (Center, Left Surround, Right Surround, and Subwoofer) as available.
- Press the SELECT button to confirm the settings and return to the Speaker Setup Page.

Example Channel Delay Adjustment:

Supported Configuration	**Unsupported Configuration**
	
Settings: **Center Speaker – 4 Inches** **Subwoofer – 4 Inches** **Left Surround – 12 Inches** **Right Surround – 12 Inches**	**Settings:** **Center Speaker – 0 Inch** **Subwoofer – 0 Inch** **Left Surround – 0 Inch** **Right Surround – 0 Inch**

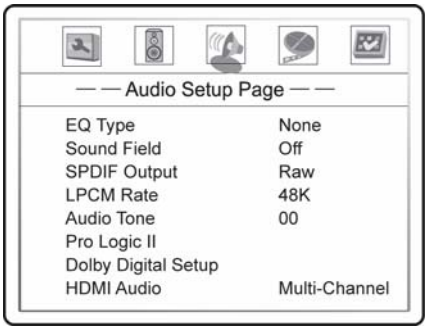
- If the distance between the listener and the front speakers are 60 inches, and the distance between the listener and the left surround speaker is 80 inches, the distance difference is 20 inches.
- This DVD player does not support delays for when the distance between the center or surround speakers and the listener are **shorter** than that between the front speakers and the listener.
- In case the channel delay settings cannot match your speaker configuration, please set all distance difference to 0 inch and use your receiver/amplifier to set the channel delay (if possible).

7. **Channel Trim:** To set the volume of each individual channel.



- Press the LEFT/RIGHT ARROW buttons to select the channel to be adjusted.
- Press the UP/DOWN ARROW buttons to raise or lower the volume of the selected channel in 0.5dB increments.
- Press the SELECT button to confirm the settings and return to the **Speaker Setup** Page.

Audio Setup Page



1. **EQ Type (None/Rock/Pop/Live/Dance/Techno/Classic/Soft):** This sets a corresponding equalization pattern type to the current music track. **Note:** These EQ options are not available for SACD, DTS or DVD-Audio tracks.

2. **Sound Field (Off/Concert/Living/Room/Hall/Bathroom/Cave/Arena/Church):** These allow users to engage fun sound field effects that will alter the original audio presentation as it was intended. **Note:** These EQ options are not available for SACD, DTS or DVD-Audio tracks.

3. **SPDIF Output:** This set the bit stream type of the digital audio output for use with Dolby Digital and DTS-compatible receivers. The options are:

   - **Raw** – Passes the encoded multi-channel digital audio unaltered. Choose this setting if your receiver/amplifier is capable of decoding Dolby Digital and/or DTS.
   - **PCM** – Forces down-mixed 2-channel digital audio output. Choose this setting if your receiver/amplifier only supports stereo digital (PCM) audio.

4. **LPCM Rate:** To set the maximum Linear PCM output frequency. The options are:

   - **48K** – Supported by most equipment.
   - **96K** – Allows a higher sampling rate and frequency response. Ensure that the receiver/amplifier can support it.
   - **192K** – Allows the highest sampling rate and frequency response. Ensure that the receiver/amplifier can support it and that your dogs are safely away from the listening area.

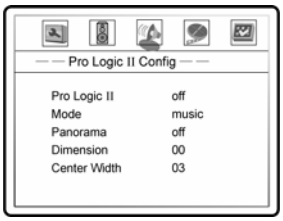
Note: The LPCM rate is selectable only when HDMI Audio is turned off.

5. **Audio Tone (+/-16)**: This function raises or lowers the tone (key/pitch) of the audio track. This is useful for playing Karaoke discs and should not be used for regular music listening or movies.

   - Press the SELECT button to show the tone control window.
   - Press the LEFT/RIGHT ARROW buttons to lower or raise the tone/pitch.
   - Press the SELECT button to confirm the setting.

6. **Pro Logic II:** Taking a step further than most DVD players, the OPPO DVD player allows you to configure Dolby Pro Logic II to expand 2-channel source audio into full 5-channel surround sound. **Note:** Pro Logic II functionality is effective only when **Speaker Setup Page > Down-mix** is set to **"5.1ch"** and **SPDIF Output** is set to **"Raw"**.

   - Press the SELECT button to enter the Pro Logic II Config page.
   - Press the LEFT ARROW button to exit the Pro Logic II Config page.



   A. **Pro Logic II:** To turn on or off the Pro Logic II processing. The options are:
      - **On** – Pro Logic II processing is always on
      - **Off** –Pro Logic II processing is disabled
      - **Auto** – Pro Logic II processing is on only when Dolby Pro Logic II encoded content is detected.

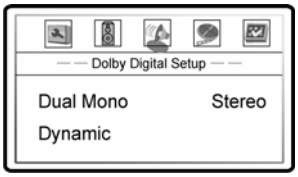
   B. **Mode**: To set the processing mode of Pro Logic II. The options are:
      - **Music** – The surround experience is tailored for multi-channel music playback
      - **Movie** – Emphasis is given to the center channel as two-channel audio is decoded and played back into your 5.1 system
      - **Pro Logic** – This activates decoding and processing of the original Dolby Pro Logic processing with mono-surround channel. We recommend using the Dolby Pro Logic Movie mode in lie of this 4-channel surround format.
      - **Auto** – Automatically selects processing mode based on the input format

   C. **Panorama (Music mode only)**: Turns on/off panorama mode. When turned on, the front stereo audio is partially fed into the surround channels for an enveloping effect.

   D. **Dimension (Music mode only)**: Allows gradual adjustment of the soundfield either towards the front or towards the rear. This is useful in setting a more even balance from all speakers with some rooms.

   E. **Center Width (Music mode only)**: To control the width of the center channel sound effect by blending the center speaker to the left and right speakers. As the level number increases, the center channel sound moves toward the left and right speakers.

7. **Dolby Digital Setup:** To configure the Dolby Digital decoder, press the SELECT button to enter the Dolby Digital Setup page and press the LEFT ARROW button to exit the Dolby Digital Setup page.



   A. **Dual Mono:** To choose the output for Dolby Digital discs encoded with two independent audio channels, such as bilingual programs. The options are:

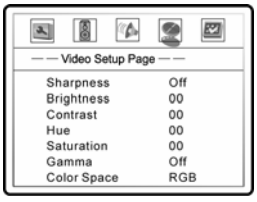
      - **Stereo** – Stereo output
      - **L-Mono** – Left channel output to both Left and Right speakers.
      - **R-Mono** – Right channel output to both Left and Right speakers.
      - **Mix Mono** – Left and Right channels mixed to both Left and Right speakers.

   B. **Dynamic**: To set the Dynamic Range Compression (DRC). DRC can smooth out the sonic peaks and valleys common with wide-range digital audio. Increasing DRC may make low level audio more audible during low-level listening. Decreasing or turning off DRC restores the sonic energy present in the original recording.

8. **HDMI Audio**: Turns the audio output from the HDMI port on or off.

   A. **Multi-Channel** – Digital audio output via HDMI will be multi-channel PCM format (HDMI 1.1 audio). The Down-mix setting in the "Speaker Setup Page" will affect whether and how multi-channel audio content will be down-mixed to stereo. When this option is selected, compressed audio bit streams will decoded by the DVD player.
   B. **SPDIF** – Digital audio output via HDMI will be the same as the SPDIF (digital coaxial/optical audio) output. The SPDIF setting will affect whether 2-channel PCM or raw compressed bit streams will be carried over via HDMI. When this option is selected and SPDIF is set to "Raw", the TV or HDMI A/V receiver must decode compressed audio formats. (Copyright protection on some DVD-Audio and Super Audio CD discs may prevent audio output via HDMI with this setting.)
   C. **Off** – No digital audio output via HDMI.

Video Setup Page



1. **Sharpness:** To set the sharpness of video output. Sharpness level can be set with the following options:

   - **Sharp** – Enables edge enhancement which is an artificial and picture-degrading feature. We recommend leaving this off.
   - **Soft** – Softens edges by smoothing the image which may cause slight loss of details.
   - **Off (recommended)** – Turns off edge enhancement completely.

2. **Brightness**: Adjusts the brightness (black level) of the video output.

    - Press the SELECT button to show the Brightness scale, and then use the LEFT/RIGHT ARROW buttons to adjust.
    - Press the SELECT button to confirm the new setting.

3. **Contrast**: Adjusts the contrast (white level) of the video output.

Tech Note		The ability to set brightness and contrast is no small thing. If you do not have the correct black and white levels then your images can appear washed out or you won't be able to see into the shadows when watching darker scenes in movies. Televisions have brightness (black level) and contrast (white level) controls; however it may take a combination of tweaking both the DVD player and your television to get just the right result. We recommend using a calibration DVD like *AVIA Guide to Home Theater* or *Digital Video Essentials* and setting your display for the best possible picture. Once that is done, see if the DVD player settings can get even closer.

4. **Hue**: Adjusts the hue (tint) of the video output.

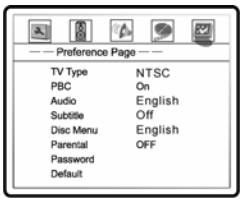
5. **Saturation**: Adjusts the saturation (color intensity level) of the video output.

6. **Gamma**: Adjusts the Gamma (the actual transition from black to white) of the video output. The available settings are High, Medium, Low and Off.

7. **Color Space**: Selects the color space for the HDMI output. The available options are:

    - **Auto (recommended)** – Allows the DVD player to automatically select the best color space based on capability information collected from the TV display.
    - **YCbCr 4:4:4 –** Forces YCbCr 4:4:4 color space. If you select this option please make sure that your TV is configured to accept YCbCr 4:4:4 signals, otherwise the video color will be incorrect.
    - **RGB** – Forces RGB color space. If you select this option please make sure that your TV is configured to accept RGB signals, otherwise the video color will be incorrect.

Preference Page



The Preference Page can only be accessed when playback is completely stopped, or when there is no disc in the DVD player.

1. **TV Type:** Sets the output video system (PAL/NTSC) to match the type of TV. The options are:

   - **Auto** – No system conversion is performed. The output video system is the same as that encoded on the disc. This requires a TV that supports NTSC and PAL input.
   - **PAL** – When playing PAL-encoded discs, no system conversion is performed. NTSC-encoded discs are converted to PAL output.
   - **NTSC (default)** – When playing NTSC-encoded (Region 1) discs, no system conversion is performed. PAL-encoded discs are converted to NTSC output.

2. **PBC** (Play Back Control): Enables/disables play back control by disc contents. The options are:

   - **On** – If the disc contains Play Back Control, follow the disc instructions.
   - **Off** – Play back the contents by sequence.

3. **Audio**: Sets the preferred audio language for DVD. If an audio track of the selected language is available on the disc, the audio track will be played back.

4. **Subtitle**: Sets the preferred subtitle language for DVD. If a subtitle of the selected language is available, it will be displayed. When “Auto” is selected, the subtitle display is decided by the disc.

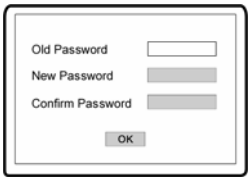
5. **Disc Menu**: Sets the preferred language for displaying DVD disc menus. If a disc menu of the selected language is available, the menu will be shown instead of the default disc menu.

Tech Note		If your preferred language is not listed in the Audio, Subtitle or Disc Menu options, select “Other” and enter the Language Code found on the Users Manual that comes with your DVD player.

6. **Parental Control**: Sets parental control ratings in order to prevent minors from watching inappropriate contents. This function requires that the disc being properly rated and encoded.

   - Press the SELECT button to bring up the rating selection menu.
   - Press the UP/DOWN ARROW buttons to select the rating to allow (G/PG/PG 13/PGR/R/NC17/ADULT). The selected rating and below will be allowed, and any rating above the selected will be blocked.
   - Press the SELECT button to confirm the selection. You will be asked for the parental control password. Enter the password (default password: 7890) and press the SELECT button.

7. **Password**: Sets parental control password. To change the password, enter the old password (default: 7890) and then enter a 4-digit number as the new password. Enter the new password again to confirm, and then press the SELECT button.



8. **Default**: Resets all settings to the factory default value. The parental control password will not be reset.

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