



RCA

HD DVD Player User's Guide

Changing Entertainment. Again.



HDV5000



Important Information

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

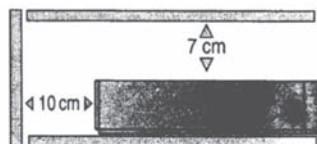
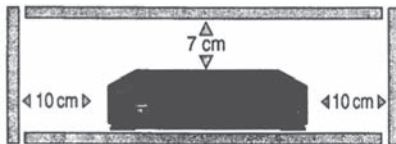
FCC INFORMATION

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 this 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.

This class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Refer to the identification/rating label located on the back panel of your product for its proper operating voltage.



Ventilation:

You must adequately ventilate the product. Make sure there is adequate space around the HD DVD player to provide proper air flow for ventilation. See diagram.

Product Registration

Please fill out the product registration card and return it immediately. Returning this card allows us to contact you regarding future updates and downloads.

Keep your sales receipt to obtain warranty parts and service and for proof of purchase. Attach it here and record the serial and model numbers in case you need them. The numbers are located on the back of the player.

Model No. HDV5000 Serial No. _____
Purchase Date: _____
Dealer/Address/Phone: _____

WARNING

To reduce the risk of fire or shock hazard, do not expose this HD DVD player to rain or moisture.

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

FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Note:

This HD DVD player is designed and manufactured to respond to the Region Management Information. If the Region number of a DVD disc does not correspond to the Region number of this HD DVD player this HD DVD player cannot play the disc. The Region number for this HD DVD player is Region No 1.

Note:

This device is protected by U.S. patent numbers 4,631,603 and 4,577,216 and 4,819,098 and other intellectual property rights. The use of Macrovision's copy protection technology in the device must be authorized by Macrovision and is intended for home and other limited pay-per-view uses only, unless otherwise authorized in writing by Macrovision. Reverse engineering or disassembly is prohibited.

The apparatus should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the apparatus.

**CLASS 1
LASER
PRODUCT**

IMPORTANT!

DO NOT RETURN THIS PRODUCT TO YOUR DEALER.

If you experience problems, call RCA customer support or mail your product in for replacement.

See the warranty on page 51 for details.

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.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
16. Apparatus should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the apparatus.
17. Keep your fingers well clear of the disc tray as it is closing. Neglecting to do so may cause serious personal injury.
18. Do not place anything on top of this unit.
19. Do not place the apparatus on amplifiers or equipment that may produce heat.
20. Do not cover the ventilating holes for the inside cooling fan.
21. Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and apparatus malfunction.
22. If the apparatus should smoke or smell, immediately disconnect the power cord from the wall outlet. Wait until the smoke or smell stops, call customer support. Neglecting to do so may cause fire.
23. During thunderstorms, do not touch the connecting cables or the apparatus.
24. Handling the cord on this product or cords associated with accessories sold with this product, will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. Wash hands after handling.



S3125A



Table of Contents

Chapter 1: Connections and Setup

Accessories Included with your HD DVD Player	4
Things to Consider Before You Connect.....	4
Types of Discs Your HD DVD Player will Play	5
Playing HD DVD Discs	5
Other Features	6
System Requirements.....	6
Choosing the Best Connection to Your TV	7
HDMI.....	7
Copy Protection and High Definition Viewing	7
Multi-channel audio	7
Installing Batteries in the Remote	8
Connecting to a TV with an HDMI Input Jack.....	9
Connecting to a TV with Component (Y, Pb, Pr) Jacks	10
Connecting to a TV with Composite or S-Video Jacks	11
Connecting an Audio System	12
The Jacks on the Back of the HD DVD Player	14
Front Panel Controls	15
The Display Panel.....	16
A Quick Tour of the Remote	17
Programming the HD DVD Remote to Operate Your TV	19
Operating the TV with the Remote.....	19
TV Codes.....	20

Chapter 2: Playing Discs

Regional Coding.....	22
Types of Discs your HD DVD Player will Play	22
Using Different Menus	23
Loading and Playing Discs.....	23
Using a Disc Menu	24
Playback Features	25
Playing at Different Speeds.....	25
Selecting a Title Number	26
Selecting a Chapter Number	26
Entering an Elapsed Time.....	26
Resume Playback.....	26
Subtitles.....	26
Changing the Audio Language.....	27
Changing the Camera Angle.....	27
Using the Repeat Feature.....	28
Checking the Operational Status and Settings	28
Playing mp3/WMA files.....	29
Connecting Game Controllers.....	30

continued on next page

Table of Contents

Chapter 3: The Menu System

The Setup Menu	32
The Picture Menu.....	33
TV Shape.....	33
Enhanced Black Level	33
Picture Mode.....	33
The Audio Menu	34
Digital Out SPDIF	34
Digital out HDMI	34
Dynamic Range Control.....	35
Dialog Enhancement	35
Speaker Setup	35
Speaker Setting.....	36
The Language Menu.....	37
Disc Menu Language	37
Subtitle Language.....	38
Audio Language	38
On Screen Language.....	38
The Ethernet Menu.....	38
The General Menu	39
Parental Lock.....	39
Creating a Password	39
Changing the Password.....	39
Setting Parental Lock	39
Clock Set.....	40
OSD On/Off	40
Screen Saver	40
Skin	40
Maintenance	40
Initialize.....	40
Update.....	40
Persistant Storage.....	40

Chapter 4: Using an Internet Connection

Before You Connect to the Internet	42
Requirements	42
Connecting to the Internet	43
Internet Settings	44
DHCP setting	44
Proxy setting.....	44
User Name and Password	44
Clock Adjustment Setting.....	45
Using Your Internet Connection	45

Chapter 5: Other Information

Troubleshooting	48
Language Code List	49
Output Sound Conversion Table	50
Limited Warranty	51
Information on Software Updates	52
Software License Agreement	53

Connections and Setup

Chapter Overview:

- Accessories Included with your HD DVD Player
- Things to Consider before you Connect
- System Requirements
- Choosing the Best Connection to your TV
- The Jacks on the Back of the HD DVD Player
- Front Panel Controls
- The Display Panel
- The Remote Control

Changing Entertainment. Again.

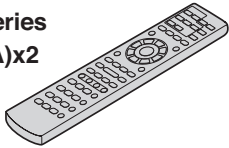


Accessories Included with your HD DVD Player

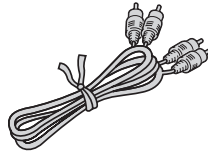
Accessories

Check that the following accessories are supplied.

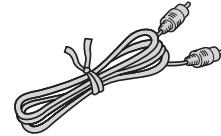
**Remote control
Batteries
(AAA)x2**



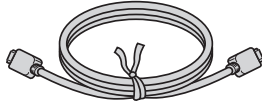
Audio cable



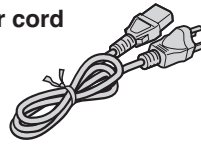
Video cable



HDMI cable



Power cord



Caution

- Do not use this power cord with any device other than this player.

Things to Consider Before You Connect

Protect Against Power Surges

- Connect all components before you plug any of their power cords into the wall outlet.
- Turn off the TV and/or components before you connect or disconnect any cables.
- Make sure all antennas and cables are properly grounded. Refer to the Important Safeguards sheet packed with your HD DVD player.

Protect Components from Overheating

- Don't block ventilation holes on any of the components. Arrange the components so that air can circulate freely.
- Don't stack components.
- When you place components in a stand, make sure you allow adequate ventilation.
- If you connect an audio receiver or amplifier, place it on the top shelf so the heated air from it won't flow around other components.

Position Cables Properly to Avoid Audio Interference

- Insert each cable firmly into the designated jack.
- If you place components above the TV, route all cables down the side of the back of the TV instead of straight down the middle of the back of the TV.
- If your antenna uses 300-ohm twin lead cables, do not coil the cables. Also, keep the twin lead cables away from audio/video cables.

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

Types of Discs Your HD DVD player will Play

- HD DVD video discs – because this is a new format, disc compatibility issues are possible. If you experience a disc compatibility problem, contact RCA Customer Support.

Note: Some content providers may use an Image Constraint Token (ICT) for HD DVD movie titles played through an analog connection. An ICT constrains the picture to half the resolution of a full HD picture. If an ICT is used, the content provider is required to put a warning label on the disc to let consumers know of the limitation.

- Audio CDs
- DVDs
- CD-RW and CD-R (mp3 files, WMA files)
 - CD-R/CD-RW discs must be recorded using CD-DA method for CD audio playback.
 - This player may not support some mp3/WMA recordings due to differences in recording formats, disc structure or condition. (Use of CD-RW for mp3 files is not recommended.)
- DVD-RAM, DVD-RW, and DVD-R
 - Some discs may be incompatible due to laser pick-up and disc design.
- DVD+R/DVD+RW (not certified)

NOTE: Blu-ray Discs cannot be played on this player.

Playing HD DVD discs

- HD DVD video discs are high-density, high-capacity discs.
- HD DVD twin format discs have HD DVD material and standard DVD material on a single side but the information is on different layers.
- Standard DVD material is intended for use in standard DVD players, but some standard DVD players may encounter problems playing twin format discs.
- To view high-definition picture in HD DVD discs, an HDTV display (720p, 1080i) is recommended.
- Connect an HDTV set to the COMPONENT OUTPUT jacks or the HDMI OUTPUT jack on this player.
- Viewing high-definition content and up-converting standard DVD content may require an HDMI-capable input or HDCP-capable DVI input on your display device.
- Some HD DVD discs and DVD discs may restrict the use of some operation commands or features.
- Dolby Digital Plus and DTS-HD (DTS core only) capability limited to 5.1 channels.
- DTS-HD processing of DTS core only. Full DTS-HD is not supported.
- Dolby TrueHD processing for two channels only.



Connections and Setup

Other Features

Internet connection feature (LAN port)

You can connect to a network with an always-on broadband connection and access special HD DVD sites.

System Requirements

For high definition video playback:

- High definition display (720p and 1080i input capable).
- HD DVD disc with high definition content.
- HDMI or HDCP capable DVI input on your display device required for some content (as specified by disc authors).
- For up-conversion of standard definition DVD, an HDMI or HDCP capable DVI input on your display device is required for copy protected content.

For Dolby® Digital Plus and DTS-HD (DTS core only) multi-channel audio playback:

- Receiver or processor/amp combination with 5.1ch channel analog input or HDMI™ multi-channel LPCM capable audio input.
- Main, center, surround speakers and subwoofer as necessary for chosen format.

For on-line interactive features:

- Ethernet connection to customer supplied always-on broadband internet service.
- Some features may require higher bandwidth.

Choosing the Best Connection to Your TV

In order to view high definition content from a disc, you will need to connect the HD DVD player to a TV with an HDMI cable or component video (Y, Pb, Pr) cables. To view 480, 720, or 1080 resolution video, use the HDMI connection or the Component video connection. Some discs may require use of the HDMI OUTPUT for viewing of high resolution material.

- When you connect the player to your TV, be sure to turn off the power and unplug both units before making any connections.
- Connect the player directly to your TV. If you connect the player to a VCR, TV/VCR combination, video selector or AV amplifier, the playback picture may be distorted due to copy protection.
- If your TV does not have an HDMI jack or component video jacks, and you can only connect to a composite video jack, you will not be able to see high definition content.
- Depending on a combination of the characteristics of the connected TV, resolution of the video source, and video output resolution of the player, high-resolution output may not provide the best picture. Change the output resolution according to your preferences.

HDMI

HDMI stands for High Definition Multimedia Interface. HDMI transfers digital audio and uncompressed digital video on a single cable. If your TV has an HDMI jack, you don't need to connect any other audio or video cables.

- HDMI output is digital only, DVI analog is not supported.
- HDMI is an evolving technology, so it is possible that some devices may not operate properly with this player.

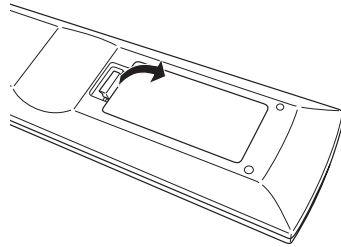
Copy Protection and High Definition Viewing

HD DVD and DVD video disc creators can include copy protection instructions in their discs that prohibit the output of high definition video (original 720p or 1080i or up-converted 480i or 480p) from a component connection. If such instructions are present in the disc you are playing, you must use an HDMI connection to view the disc in a high definition format. If you view the disc through a component connection, the video will play in 480i or 480p resolution.

Multi-Channel Audio

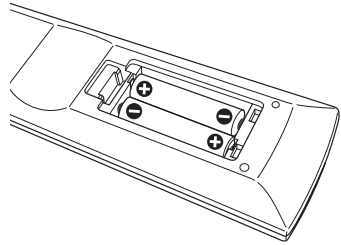
If your TV or display does not support multi-channel audio, to use multi-channel audio you will need to either use an AV receiver that supports multi-channel audio over HDMI (set "Digital out HDMI" to "Auto" or to match the decoding capability of your equipment) or use a receiver that has a coaxial or optical SPDIF digital audio input (set "Digital audio SPDIF" to match the decoding capability of your equipment).

Connections and Setup



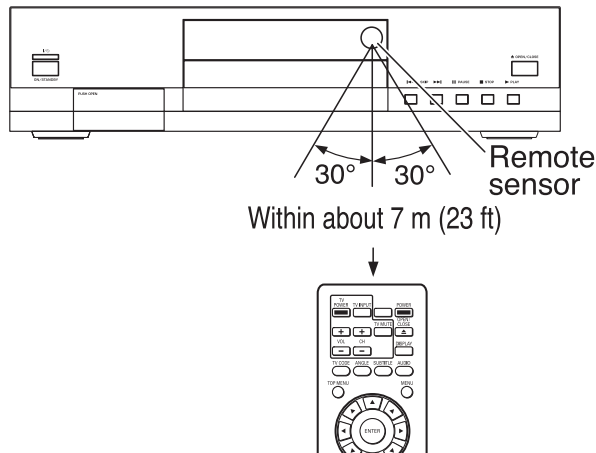
Install Batteries in the Remote

1. Remove the battery compartment cover on the back of the remote.
2. Insert new batteries. Match the polarities (+ and -) on the batteries with the diagram on the remote.
3. Put the battery compartment cover back on the remote.



Important Battery Information

- If you're not going to use the remote for a month or more, be sure to remove the batteries because they can leak and cause damage.
- Dispose of batteries in the proper manner, according to federal, state, and local regulations.
- Any battery may leak electrolyte if mixed with a different battery type, if inserted incorrectly, if all batteries are not replaced at the same time, if disposed of in fire, or if an attempt is made to charge a battery not intended to be recharged.
- Discard leaky batteries immediately. Leaking batteries can cause skin burns or other personal injury.



Point the Remote in the Right Direction

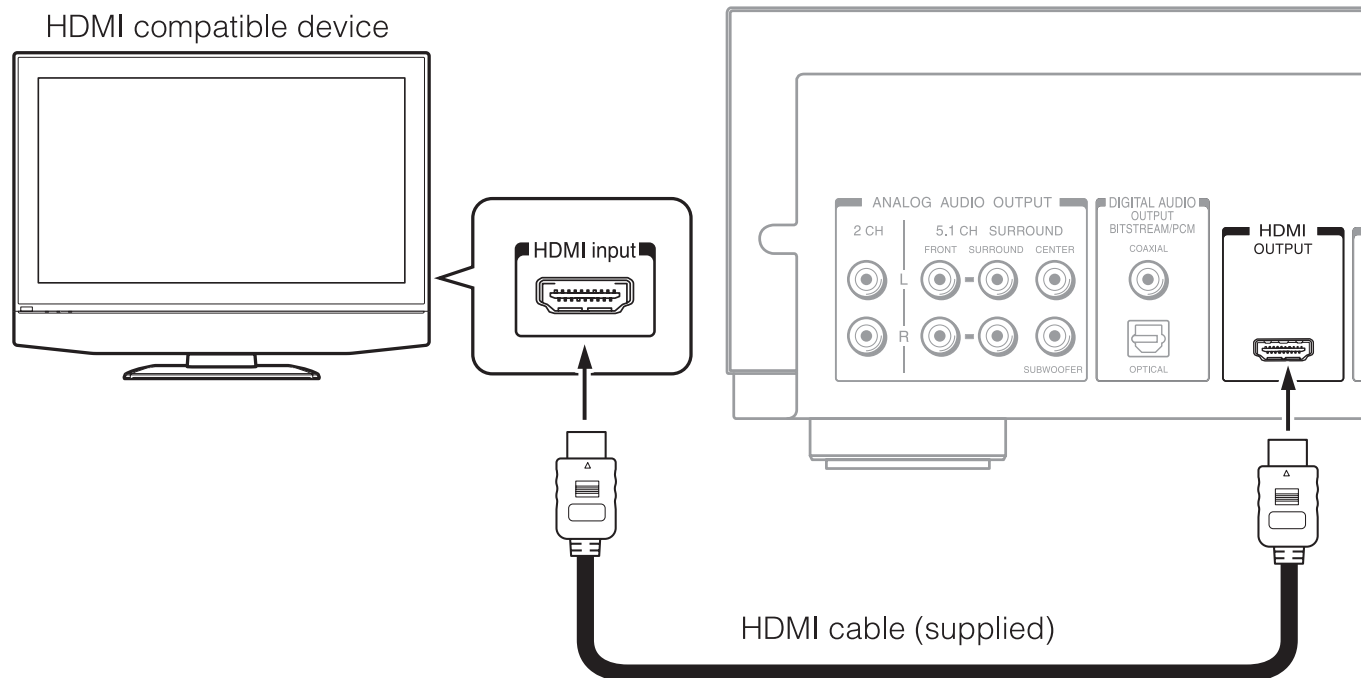
When you want the remote to operate the HD DVD Player, point the remote at the HD DVD Player, *not* the TV. The remote has to be pointed in the correct direction and toward the correct component in order for the remote control's signal to communicate with the sensor on the component. Make sure there is a clear path between the remote control and the component you want to operate so the signal isn't blocked.

Distance: About 23 ft from the front of the remote sensor

Angle: About 30° in each direction from the remote sensor

Connections and Setup

Connecting to a TV with an HDMI Input Jack *(recommended)*



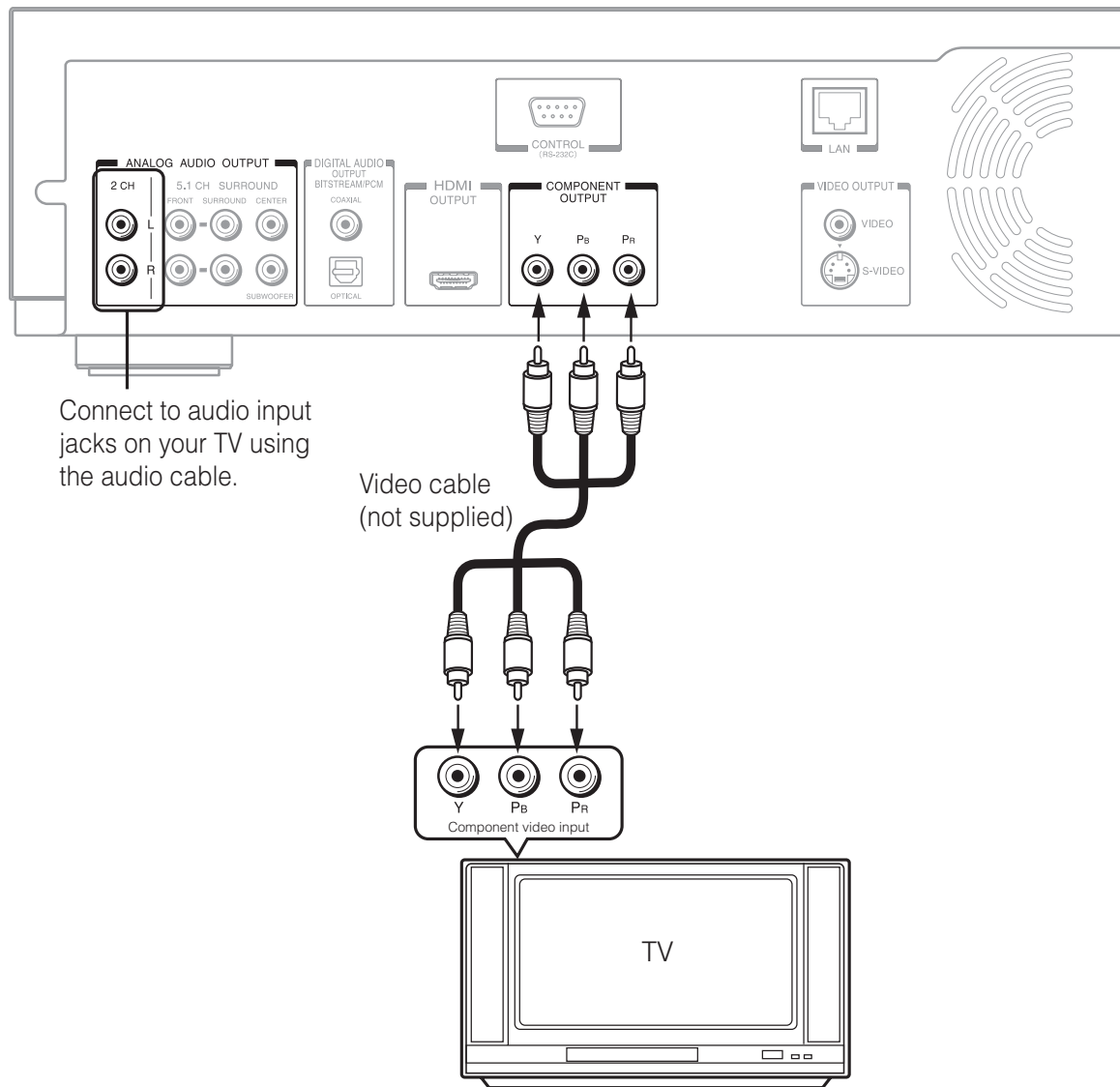
- Set Digital out HDMI

1. Use an HDMI cable with the HDMI logo (**HDMI**) to connect an HDMI compatible display.
2. Turn on the display and your HD DVD player.
3. When you turn the unit on for the first time, a setting menu appears. Use the arrow buttons and the OK button to select the General option, and then the Clock Set option (for details, see page 32). Set the proper time and date. When you are finished, press the SETUP button to exit the menu system.
4. Press the V. OUTPUT button on the remote until HDMI is shown on the display.
5. Press the RESOLUTION button on the remote until the resolution output (480p, 720p or 1080i) matches the resolution of the TV or display.

Note: If the type of display you are connecting doesn't output sound (such as a projector or monitor), change the Digital out HDMI setting in the Audio menu to PCM.

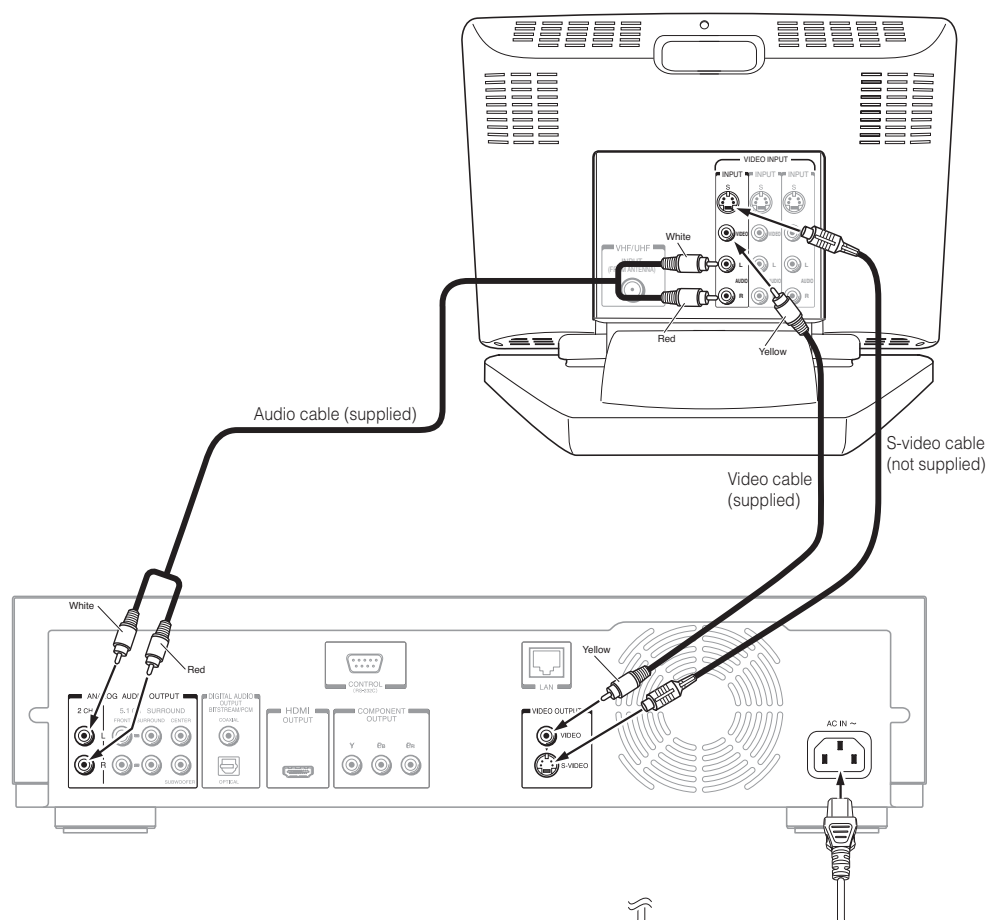
Connections and Setup

Connecting to a TV with Component (Y, Pb, Pr) Jacks



1. Connect the audio cables to the ANALOG AUDIO OUTPUT 2CH L (left – white) and R (right – red) jacks on the back of your HD DVD Player, and to the corresponding Audio Input jacks on your TV.
2. Connect the color-coded Y, Pb, Pr cables from the output jacks on the back of your HD DVD player to the Y, Pb, Pr video in jacks on your TV.
3. Turn on the unit and your TV.
4. When you turn the unit on for the first time, a setting menu appears. Use the arrow buttons and the OK button to select the General option, and then the Clock Set option (for details, see page 32). Set the proper time and date. When you are finished, press the SETUP button to exit the menu system.
5. Press the V. OUTPUT button until the HDMI indicator on the display is OFF.
6. Press the RESOLUTION button on the remote until the resolution output (480i, 480p, 720p or 1080i) matches the resolution of the TV or display.

Connecting to a TV with Composite or S-Video Jacks



1. Connect the audio cables to the ANALOG AUDIO OUTPUT 2CH L (left – white) and R (right – red) jacks on the back of your HD DVD Player, and to the corresponding Audio Input jacks on your TV.
 2. Connect the video cable.
 - **Basic video connection** – Connect the video cable (yellow) to the VIDEO OUTPUT jack on the back of your HD DVD Player, and to the Video Input jack on your TV.
- OR**
- **S-Video (optional)** – If your TV has an S-Video Input jack, connect an S-Video cable to the S-VIDEO jack on the back of your HD DVD Player and to the S-Video INPUT jack on your TV. If your TV doesn't have S-Video, use the basic video connection listed above.
3. Turn on the unit and Your TV.
 4. When you turn the unit on for the first time, a setting menu appears. Use the arrow buttons and the OK button to select the General option, and then the Clock Set option (for details, see page 32). Set the proper time and date. When you are finished, press the SETUP button to exit the menu system.
 5. Press the V. OUPUT button on the remote until the HDMI indicator on the display is OFF.
 6. Press the RESOLUTION button on the remote until 480i is shown on the display. If 1080i or 720p is selected, video can't be displayed from the S-VIDEO jack and VIDEO jack (yellow).

Note: Your cable or off-air connection to the television should not be affected by this connection. Connect your cable or off-air antenna to your television as you normally would. You may need to consult your television manual for details.

Connections and Setup

Connecting an Audio System

You can enjoy multichannel surround-sound by connecting to an amplifier compatible with Dolby® Digital and DTS® sound.

Caution

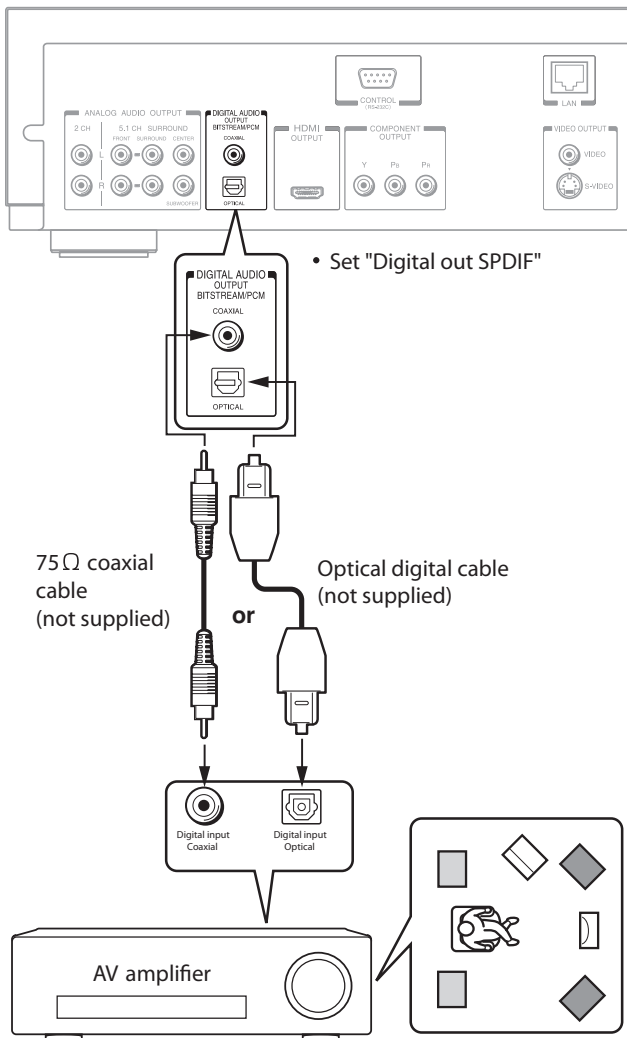
When you are connecting an AV decoder via the DIGITAL AUDIO OUTPUT BITSTREAM/PCM jack that does not have Dolby Digital, DTS or MPEG decoding capability, set the Digital out SPDIF option in the Audio menu to PCM. Otherwise, high volume sound may damage your hearing as well as the speakers.

Dolby Digital® and DTS®

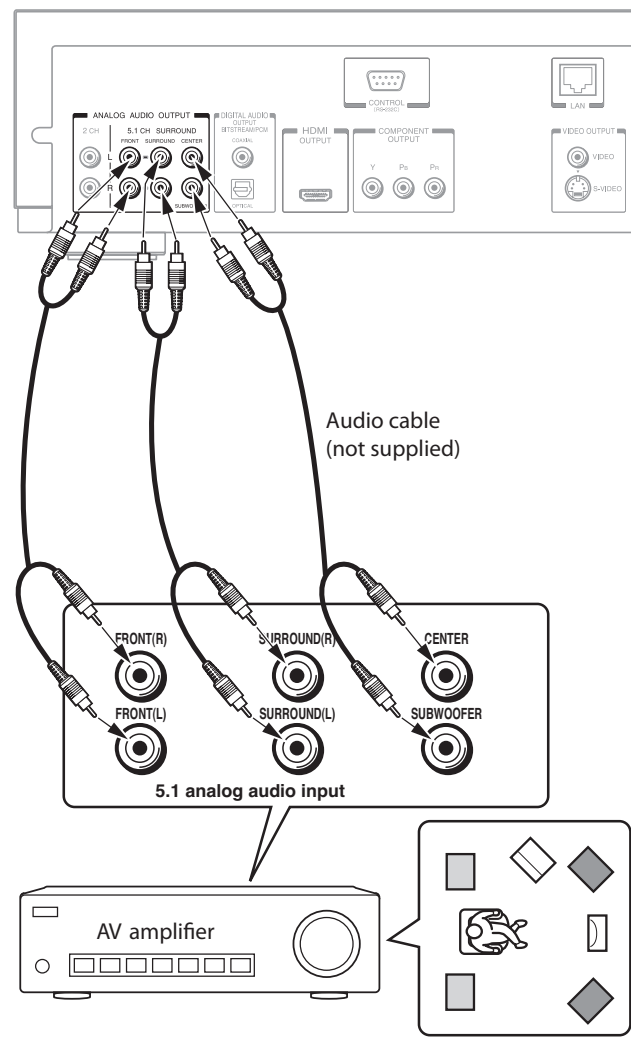
Both Dolby Digital and DTS are audio formats used to record 5.1-channel audio signals onto the digital track of film (while the film is being made). Both of these formats provide up to six separate channels: left, right, center, left rear, right rear, and common subwoofer.

The disc will play 5.1-channel sound only if you've connected a DTS or Dolby Digital receiver or decoder and if the original movie the disc was recorded from was encoded in the Dolby Digital or DTS format.

Via Digital Audio Output



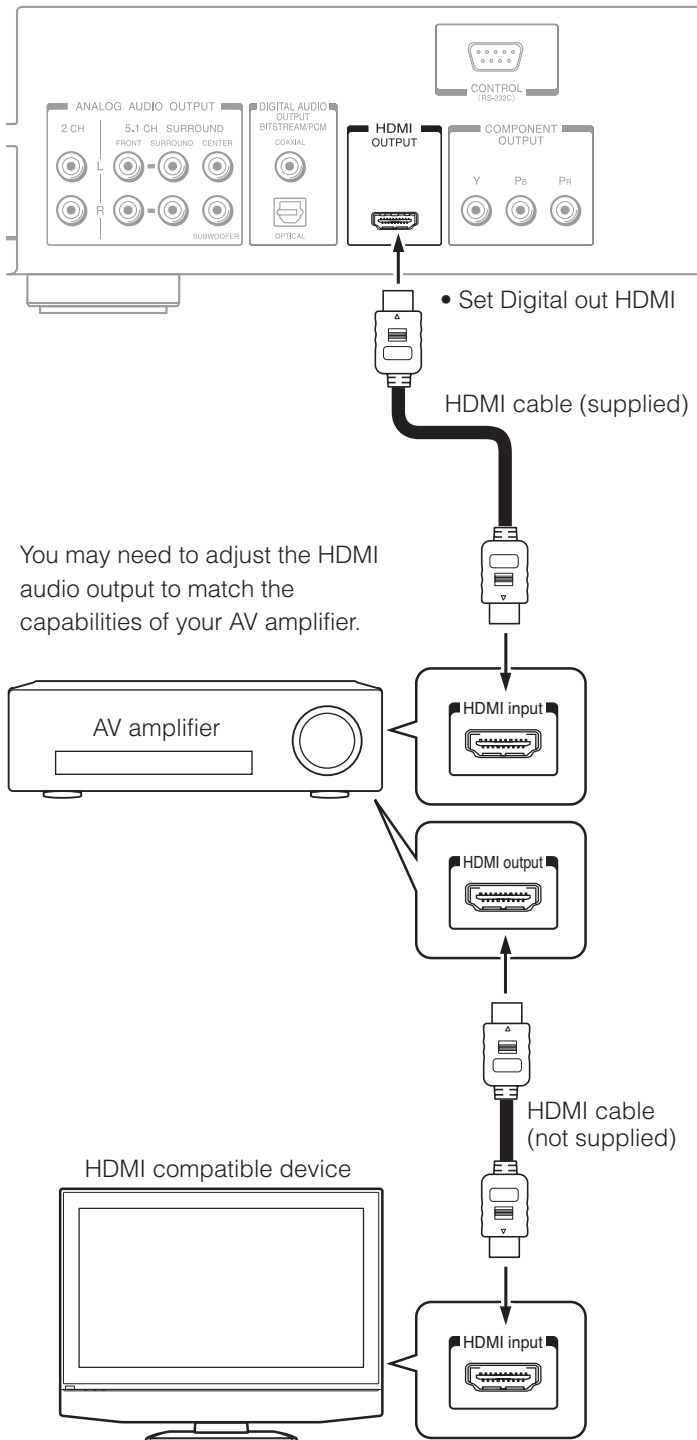
Via 5.1 ch Analog Audio Output



Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. ©1992-1997 Dolby Laboratories, Inc. All rights reserved.

DTS is a registered trademark of Digital Home Theater Systems, Inc.

Via HDMI Output



Caution

When you are connecting an AV decoder via the HDMI OUTPUT jack that does not have Dolby Digital or DTS decoding capability, set the Digital out HDMI option in the Audio menu to PCM or Downmixed PCM. Otherwise, high volume sound may damage your hearing as well as the speakers.

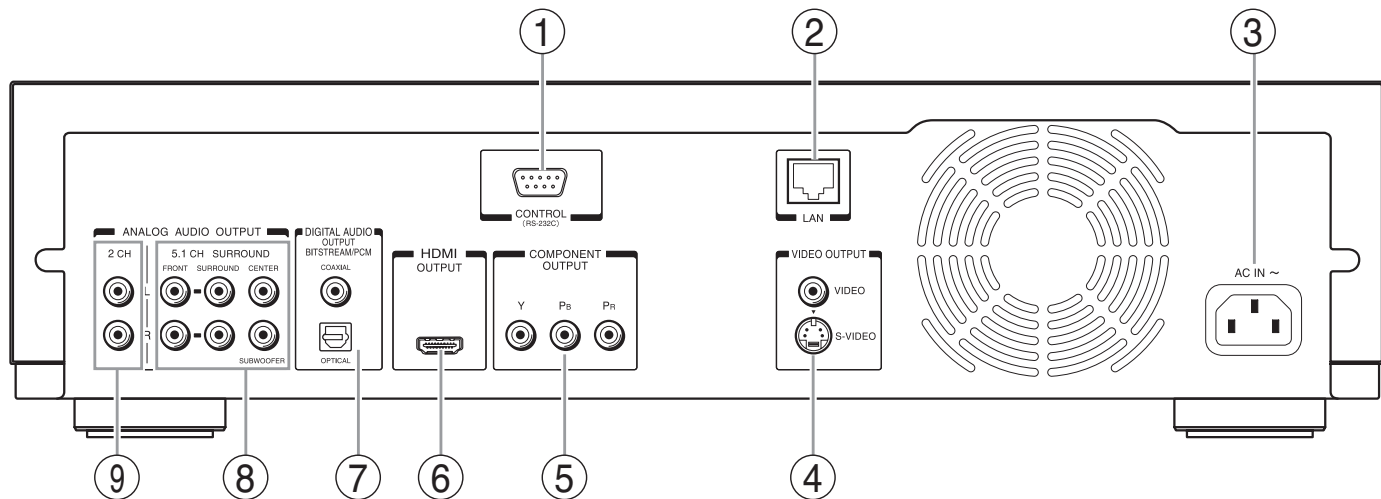
Notes:

- Dolby Digital Plus and DTS-HD (DTS core only) capability limited to 5.1 channels.
- DTS-HD processing of DTS core only. Full DTS-HD is not supported.
- Dolby TrueHD processing for two channels only.

Connections and Setup

The Jacks on the Back of the HD DVD Player

When connecting, make sure you connect Output jacks to Input jacks, Video to Video, Right Audio to Right Audio, etc.



1. CONTROL jack

Used for custom control devices

2. LAN port

Use this to connect to a network with an always-on broadband connection

3. AC IN

Connect the power cord here.

4. VIDEO OUTPUT (VIDEO, S-VIDEO) jacks

Outputs video and audio signals to a connected TV or amplifier.

5. COMPONENT OUTPUT jacks

Outputs video signals to a connected TV or monitor.

6. HDMI OUTPUT jack

Outputs video/audio signals to a connected TV, monitor or AV amplifier. Connect to a TV, monitor or AV amplifier equipped with HDMI input.

7. DIGITAL AUDIO OUTPUT BITSTREAM/PCM (OPTICAL/COAXIAL) jacks

Outputs digital audio signals. Connect to a digital audio input on an amplifier equipped with digital audio decoder. When connecting the optional digital cable, fit the connector into the jack firmly.

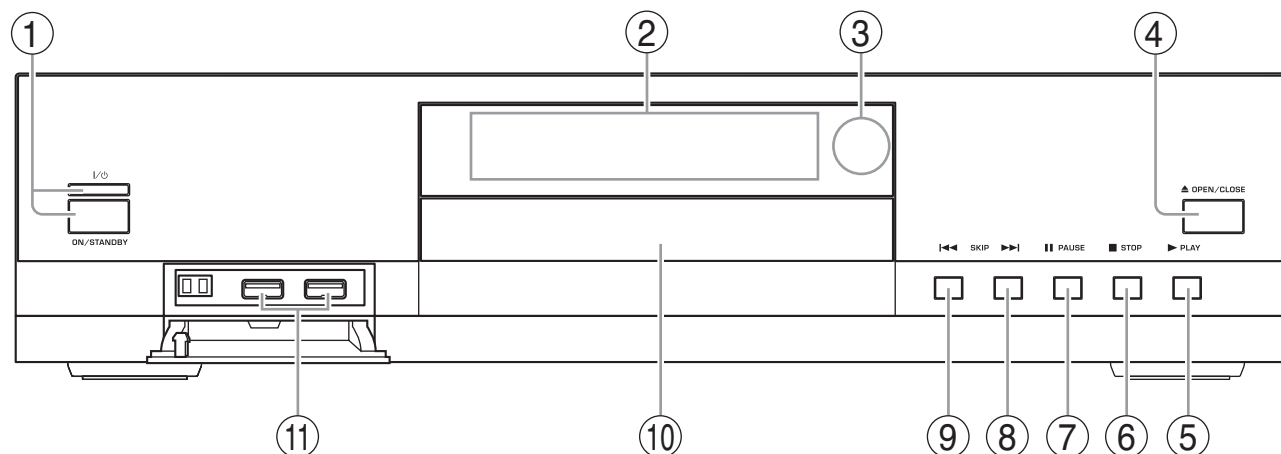
8. ANALOG AUDIO OUTPUT 5.1 CH SURROUND jacks

Connect to an amplifier equipped with 5.1 CH audio input.

9. ANALOG AUDIO OUTPUT 2 CH jacks

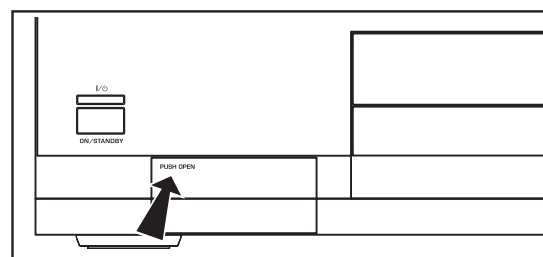
Outputs audio signals to a connected TV or AV amplifier.

Front Panel Controls



* The above illustration displays the front panel with the cover open. See below on how to open the cover.

1. **ON/STANDBY** Turns the unit on or puts it in *STANDBY* mode (off).
2. **Front Panel Display** Displays information about the current state of the player and/or disc.
3. **Remote sensor** Picks up signals from the remote.
4. **OPEN/CLOSE** Press to open and close the disc tray.
5. **PLAY** Begins disc play (and closes disc tray if open).
6. **■ (stop)** Stops disc play.
7. **|| (pause)** Pauses disc play.
8. **⏮ (skip backward)** During playback, moves to the beginning of the preceding title, chapter, or track on a disc.
9. **⏭ (skip forward)** During playback, advances to the beginning of the next title, chapter or track.
10. **Disc Tray** Discs are inserted here. Press **OPEN/CLOSE** to open and close disc tray.
11. **Game Controller Ports** Use to connect a game controller(s).

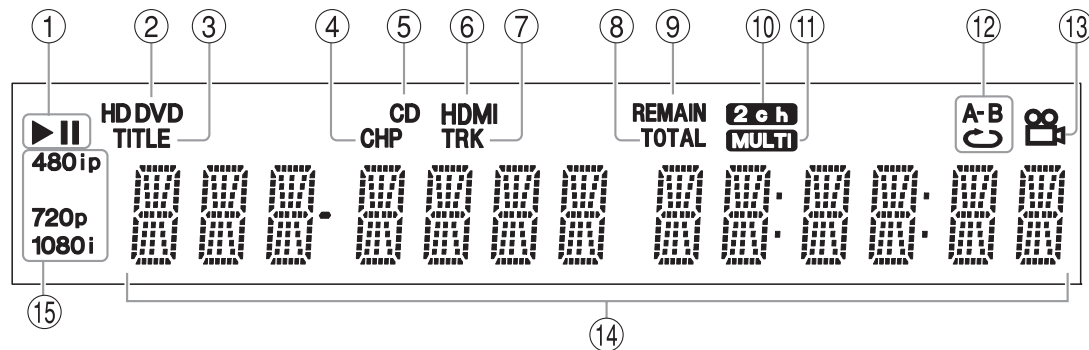


Note

- Do not place a heavy object on the cover while it is open. Doing so may damage the player.

Connections and Setup

The Display Panel



1. Status indicator

Shows whether disc is playing or paused.

2. Disc indicator

HD DVD is displayed when an HD DVD disc is loaded.

DVD is displayed when a DVD disc is loaded.

3. TITLE indicator

Lights when a title number is displayed.

4. CHP (Chapter) indicator

Lights when a chapter number is displayed.

5. CD indicator

Lights when a CD is loaded.

6. HDMI Indicator

Lights when selecting the HDMI output.

7. TRK (Track) indicator

Lights when a track number is displayed.

8. TOTAL indicator

Lights when the total playing time of the disc is displayed.

9. REMAIN

Lights when a remaining playback time is displayed.

10. 2ch indicator

Lights when 2 channel (L/R) sound is output.

11. MULTI indicator

Lights when 5.1 channel sound is output.

12. Repeat mode indicator

Lights when playing in repeat mode.

13. Angle icon indicator

Lights when playing a scene recorded with multi angles.

14. Multi display

Displays the total playing time of the disc, elapsed time, remaining time, title number, chapter number or message, etc.

15. Video output format indicator

Displays the video output format currently selected.

480i : 480 interlace

480p : 480 progressive

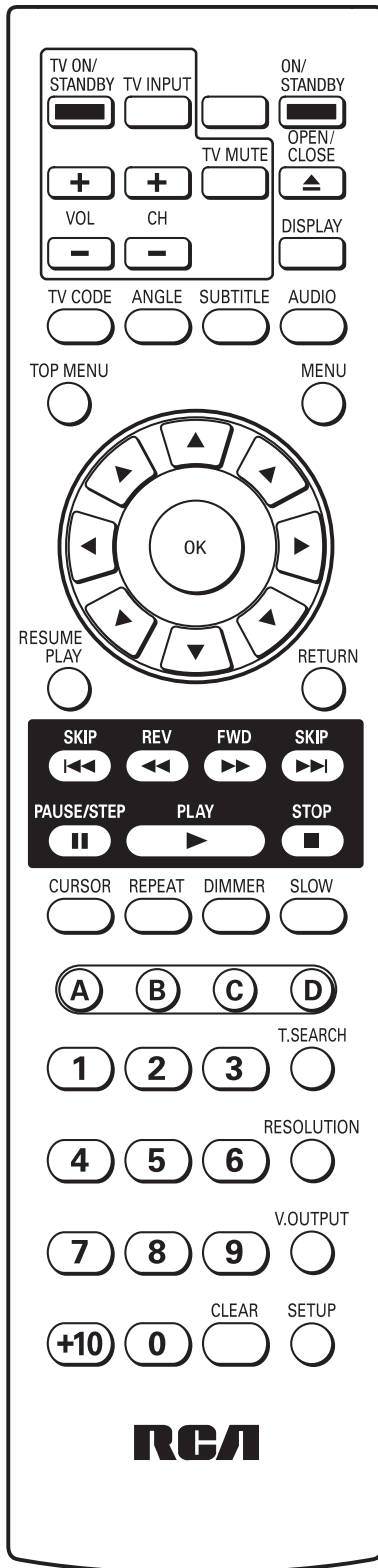
720p : 720 progressive

1080i : 1080 interlace

NOTES:

Every time you press DISPLAY button, the display changes the contents. The display may not change, depending on the disc conditions.

Press the DIMMER button on the remote control to change the brightness of the display. Turning off the power resets the display to the default.



A Quick Tour of The Remote

This remote may not operate some or all features of your TV or monitor, so it may be necessary to use your original remote. The buttons must be programmed to operate other brands of TVs (see page 19).

Buttons that operate your TV

In order to use this remote with your TV, you first have to program the remote. See page 19.

TV ON/STANDBY Use this button to turn on a compatible TV.

TV INPUT Changes the TV input selection.

VOL+/- Changes the TV volume.

CH +/- Changes the TV channels.

TV MUTE Reduces sound to an inaudible level.

TV CODE Use this button to program your remote to control your TV (see page 19).

Buttons that operate your HD DVD Player

ON/STANDBY Use this button to turn on your HD DVD player.

OPEN/CLOSE Press to open and close the disc tray.

DISPLAY Press this button to display information about a disc.

ANGLE Press this button to access various camera angles on a disc (if the disc contains multiple camera angles).

SUBTITLE When a disc is playing, press this button to show the Subtitle display (if the disc was created with subtitles).

AUDIO Press this button to select a different language for disc playback (provided the disc was authored with multiple languages).

TOP MENU Accesses the DVD disc guide (if available).

MENU Brings up a menu for recordable discs.

OK Selects menu items.

Arrow buttons Use the arrow buttons (left, right, up, and down) to move through the on-screen menus. You highlight a menu item by pressing the arrow buttons and select a highlighted item by pressing the OK button.

RESUME PLAY Press this button to resume playback at the point you stopped watching.

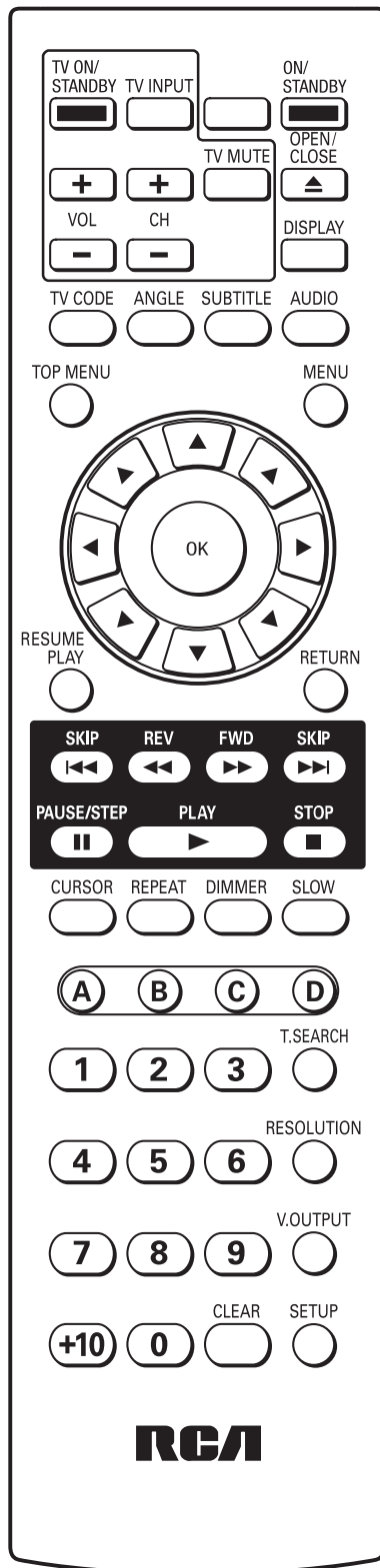
RETURN Goes back to the previous screen.

⏮ (skip backward) During playback, moves to the beginning of the preceding title, chapter, or track on a disc.

REV Press this button during playback to reverse through the disc.

FWD Press this button during playback to advance through the disc.

Connections and Setup



PAUSE/STEP Press this button to pause disc play. For HD DVD discs, press again to play forward a frame at a time.

PLAY Begins disc play.

STOP Stops disc play.

▶▶ (skip forward) During playback, advances to the beginning of the next title, chapter or track.

CURSOR Press this button to use a cursor on discs that include game or drawing software. After you press the CURSOR button, press the arrow buttons to move the cursor.

REPEAT Press this button to bring up the Repeat info display. You can repeat part or all of a chapter, track, or an entire disc.

DIMMER Press this button to change the brightness of the display.

SLOW Plays video in slow motion.

A, B, C, D buttons These buttons perform certain functions during HD DVD playback. The functions differ from disc to disc; use them as indicated on the disc.

Number buttons Use the number buttons to input information such as chapter numbers, track numbers, or to make selections on some menu screens.

T. SEARCH Use this button to go to an elapsed time on a disc.

RESOLUTION Press to set the resolution to match the TV. The resolution setting is displayed in the player window.

V. OUTPUT Switches to the HDMI output. When HDMI output is selected. Component or composite video can't be displayed.

SETUP Brings up the Setup menu, which you can use to customize features and settings.

Programming the HD DVD Remote to Operate Your TV

This remote is already programmed to work with RCA TVs. If you have a TV that is another brand, the remote can be programmed to control most brands of remote controllable TVs.

Entering Codes

To control a TV that is not an RCA TV, you'll need to enter the specific codes for the brand of TV you have.

1. Turn on the TV to be programmed.
2. Look up the brand and code number(s) for the TV on the following page.
3. Point the HD DVD Player's remote at the TV.
4. Press and hold the TV CODE button on the remote.
5. Enter the code for your TV (from the list on the next page).
6. Release the TV CODE button, and then press TV ON/STANDBY to see if the TV responds to the command.
7. If you get no response, repeat these steps using the next code listed for your brand, until the TV responds to the remote commands.

Notes: This remote may not be compatible with all brands and models of televisions.

Once you program this remote to operate your TV, it may not operate all the features on your TV. If you want to use features on your TV that this remote doesn't control, use the TV's original remote.

When you replace the batteries in the remote, you will have to reprogram the remote.

Important!

You must *continue pressing* the TV CODE button *while* you enter the code.

For example, let's say you have a Toshiba TV. To program the remote to operate the TV you would:

Press and hold the TV CODE button while you enter the first code listed for Toshiba in the Brand Code Table.

Release the TV CODE button. Press TV ON/STANDBY to see if the TV responds. If it doesn't, follow the same steps, but enter the second code instead of the first.

Operating the TV with the Remote

Once you have programmed the remote, use the TV INPUT button to change the video input between the TV and HD DVD player.

Connections and Setup

TV Codes

Brand name	Brand code						Brand name	Brand code					
RCA (default code is 0001)	0051	0221	0501	0621	0661	0711	Philco	0051	0161	0271	0291	0361	0421
	0871	0921	0941	1001	1041	1071		0501	0551	0621	0631	0661	0711
	1091	1181	1241	1301	1461	1521	Philips	0051	0161	0271	0321	0361	0421
	1531	2481	4361	4861	4881	5681		0461	0551	0621	0631	0661	0711
	6641							2141	2351	5221	5401	5411	5431
Bell & Howell	0081	0431						5451	5461	5481	5501	5531	5541
Citizen	0051	0381	0471	0551	0621	0851		5601					
	1561						Pioneer	0051	0621	0681	0721	0751	1061
Curtis Mathes	0051	0431	0531	0621	0851	1521		1241					
	1561	6671					Proton	0051	0161	0621	0651	2491	
Emerson	0051	0111	0121	0141	0151	0161	Quasar	0711	0741	0801	1271	2281	5651
	0201	0211	0351	0381	0431	0521		5661					
	0561	0621	0691	1241	1291	1371	Radio Shack	0431	1521	2481			
	1561	2481	4861				Radio Shack/Realistic	0051	0161	0381	0431	0541	0621
Fisher	0251	0401	0431	1151	2451			1431	1561	6671			
GE	0051	0091	0181	0321	0371	0591	Realistic	0431	1521				
	0621	0711	0741	1041	1471	1521	Runco	0011					
	2481	4691	4881	4891	6671		Samsung	0051	0161	0501	0531	0621	0661
Goldstar	0051	0161	0231	0451	0501	0621		0851	0931	1021	1141	1431	1561
	0661	0771	0961	1431	1561	2491		1841	2311	4011			
Hitachi	0031	0051	0161	0191	0301	0601	Sanyo	0051	0261	0401	0431	0791	0901
	0621	0641	0671	0811	0951	1011		1151					
	1061	1241	1361	2131	2381	4731	Sears	0051	0151	0191	0251	0331	0401
	4911	4961						0411	0431	0621	0661	1041	1081
Infinity	0631							1151	1481	1521	2481	6671	
JBL	0631						Sharp	0051	0111	0161	0351	0541	0581
JVC	0101	0161	0191	0241	0331	0511		0611	0621	0731	0891	1101	1561
	0561	0601	0741	1321	1421	2171		2181	5741	5751			
	4351	4701	4751	4771	4971	5031	Sony	0441	1111	1231	1511	1901	
	5041	5051					Soundesign	0051	0151	0381	0551	0621	2481
LXI	0411	0431	0621	0631	1041	1171	Sylvania	0051	0071	0271	0291	0341	0361
	1521	2491	6671					0421	0551	0621	0631	0661	0861
Magnavox	0051	0271	0291	0341	0361	0421		1441	2191	2201	4151	5481	
	0551	0621	0631	0661	0971	0981	Tandy	1101					
	2221	5221	5231	5241			Technics	0741					
Marantz	0051	0481	0621	0631	0641	2491	Teknika	0051	0081	0151	0161	0191	0341
Memorex	0081	0431	0501	0621	2491	4421		0381	0471	0501	0551	0621	0851
	5251							1271	1561	2481			
MGA	0051	0251	0261	0371	0501	0621	Toshiba	0021	0071	0411	0431	0831	0841
	0661	0761						0851	1341	1781	2121	2491	4371
Mitsubishi	0051	0251	0261	0371	0491	0501		5951	5971	6041			
	0621	0661	0761	2231	5261	5271	Wards	0051	0081	0141	0151	0181	0211
MTC	0051	0501	0621	0851				0271	0321	0341	0361	0421	0501
NAD	0411	0621	1061					0541	0621	0631	0661	1051	1521
Optonica	0541	1101						2491	6671				
							Zenith	0011	0051	0081	0781	1281	2441
								4821	6151	6171	6181		

Playing Discs

Chapter Overview:

- Regional Coding
- Types of Discs your HD DVD Player will Play
- Using Different Menus
- Loading and Playing Discs
- Using a Disc Menu
- Playback Features
- Playing mp3/WMA files
- Connecting Game Controllers

Changing Entertainment. Again.



Playing Discs




Regional Coding



Both the HD DVD player and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes don't match, the disc won't play. This player's code is region 1.


Image Constraint Warning Labels

Some content providers may use an Image Constraint Token (ICT) for HD DVD movie titles played through an analog connection. An ICT constrains the picture to half the resolution of a full HD picture. If an ICT is used, the content provider is required to put a warning label on the disc to let consumers know of the limitation.

Types of Discs your HD DVD Player will Play

Disc	Specification
HD DVD video disc 	<ul style="list-style-type: none"> • 12cm (4³/₄ in.)/8cm (3¹/₄ in.)
DVD video disc 	<ul style="list-style-type: none"> • 12cm (4³/₄ in.)/8cm (3¹/₄ in.) • Region number 1 or ALL The region number of this HD DVD player is 1. If a disc isn't coded for region one or ALL, it will not play in this player.
Audio CD 	<ul style="list-style-type: none"> • 12cm (4³/₄ in.)/8cm (3¹/₄ in.)

Disc	Specification
 DVD-RAM	<ul style="list-style-type: none"> • DVD VR mode recording (CPRM compatible discs cannot be played) • Single sided 4.7GB(12cm (4³/₄ in.)) • Double sided 9.4GB(12cm (4³/₄ in.)) *DVD-RAM in cartridge cannot be loaded. Bare discs only.
 DVD-RW	<ul style="list-style-type: none"> • DVD VR mode recording (CPRM compatible discs cannot be played.) • DVD Video mode recording *Finalized discs only.

Disc	Specification
 DVD-R	<ul style="list-style-type: none"> • DVD Video mode recording • 4.7GB For General • DVD-R For DL *Finalized discs only.
CD-RW	<ul style="list-style-type: none"> • CD-DA (audio CD) format • MP3 file • WMA file Finalized discs only
CD-R	<ul style="list-style-type: none"> • CD-DA (audio CD) format • MP3 file • WMA file Finalized discs only
This player will play most DVD+R and DVD+RW discs (not certified)	

Notes

- Because HD DVD is a new format, disc compatibility issues with new and existing format discs are possible. Not all discs are compatible. If you experience compatibility problems, please contact RCA Customer Support.
- This player can play NTSC color system only.
- You cannot play non-standardized discs even if they may be labeled as above.

Using Different Menus

Each disc is programmed with different features. There are two separate ways to access features:

- **The Disc menu** – The Disc menu is part of each disc and is separate from the HD DVD player's menu. The contents of each disc menu varies according to how the disc was authored and what features are included. The disc menu is turned on and off (while the disc is playing) with the TOP MENU button on the remote.

If a disc was recorded from a personal device such as a DVD recorder, it may contain a title menu. For discs recorded on personal devices, press the MENU or TOP MENU button.

- **The HD DVD player menu** – The HD DVD player's menu system is accessed only when a disc isn't playing. Press SETUP on the remote to bring up the HD DVD player menu.

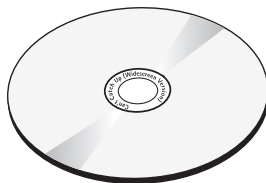
Remember that a feature will only work if the disc was programmed with that feature. For example, if you have subtitles turned on, the subtitles will only appear if the disc was created with subtitles.

Loading and Playing Discs

Turn on the TV and your HD DVD player (press ON/STANDBY on the player or the remote control).



This is an example of a one-sided disc.



This is an example of a 2-sided disc. The title is in the center.

1. Press the OPEN/CLOSE button on the remote control or the front of the HD DVD player.
2. Place a disc gently into the tray with the disc's label facing up (double-sided discs have content on both sides, so you can place either side up).
3. Press the OPEN/CLOSE or PLAY button on the front of the player to close the disc tray.

The HD DVD player reads the disc's table of contents, and then one of three things happens depending on how the disc was programmed:

- The disc starts playing.
- The disc menu appears on the screen. One of the options will start disc play. Highlight that option and press OK.
- The HD DVD player's main menu appears on the screen. Press the PLAY or OK button on the remote.

When you stop playing a disc, the player remembers where you stopped. Press RESUME PLAY to begin playback from the place you stopped. To begin the title over, press STOP again.

Playing Discs

Using a Disc Menu

A disc is capable of having an on-screen menu that is separate from the HD DVD player's menu system and on-screen information display. The disc menu might only contain a list of the titles and chapters, or it may allow you to change features such as language and playback settings.

Note: "Default settings" are the settings that the player will default to each time it is turned on.

Any settings you change with the disc menu only temporarily override the default settings.

Use the Setup Menu of the HD DVD player to change the default settings (See chapter 3).

Although the content and operation of disc menus varies from disc to disc, the following example will give you an idea of what to expect.



An example of a disc menu. Menus on discs vary.



In this example, The *Language* setting is highlighted. To see language options, press OK on the remote.



In the example on the left, *English* is highlighted. Press OK on the remote to play the disc with English dialog.

1. While the disc is playing, press TOP MENU. The disc menu appears.
2. Press the up/down arrow buttons to highlight the menu item you want to choose, and press OK. In the example on the left, *Language* has been highlighted.
3. Press the up/down arrows to select a language, and press OK.
4. Press PLAY to resume playback.

Note: Any settings you change on the disc menu only override the settings in the HD DVD player's menu temporarily. Default settings are the settings that you set up in the HD DVD player's menu system. To change the default settings, see Chapter 3.

Playback Features

Playing at Different Speeds (DVDs and CDs)

Skipping backwards to chapters or tracks

Press **⏮** to start playback from the beginning of the current chapter or track.

Press twice to start playback from the beginning of the previous chapter or track.

Advancing frame-by-frame

During playback, press **⏸** to pause the picture.

If you press **⏸** while a picture is paused, you can advance one frame at a time.

To resume normal playback, press **▶**.

Fast reverse or Fast Forward

During normal playback, press

▶▶ for fast forward playback

⏮ for fast reverse playback

Each time you press the button, the playback speed increases.

To resume normal playback, press **▶**.

Skipping ahead to chapters or tracks

Press **▶▶|** to start playback from the beginning of the next chapter or track.

Search

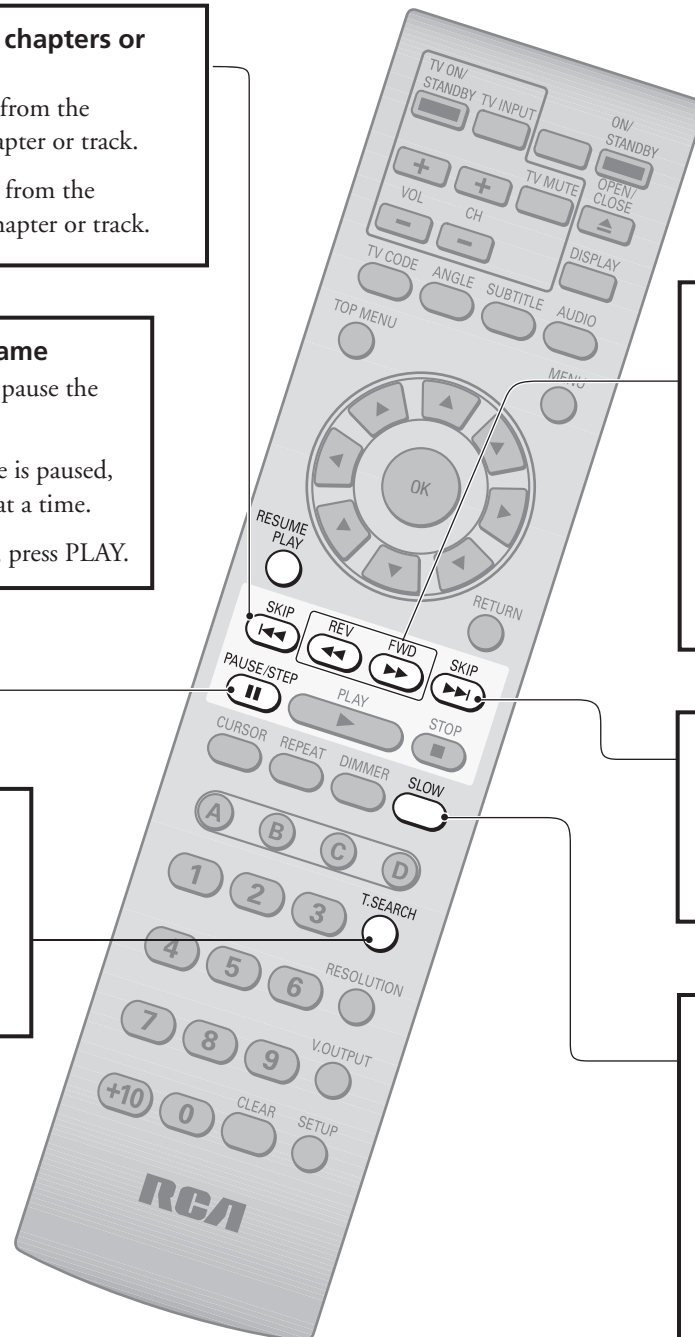
Press **T.SEARCH** to bring up the Search display. Search for a title, chapter or enter an elapsed time to go to an exact location on a disc.

Slow Motion

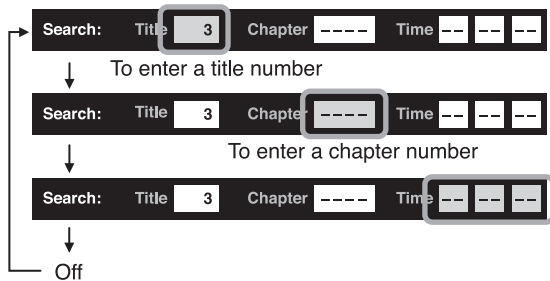
Press **SLOW** during playback to play video in slow motion.

Each time you press the button, the slow-motion speed changes. To resume normal playback, press **▶**.

Not available in CD playback.



Playing Discs



- The actual display may vary depending on the disc.

Selecting a Title Number

1. Press the T. SEARCH button on the remote control to bring up the search display. The Title field is highlighted.
2. Use the number buttons to enter the number of the title you want to play and press OK.
3. To clear the banner from the screen, press T. SEARCH three more times.

Selecting a Chapter Number

1. Press the T. SEARCH button on the remote control to bring up the search display. Press again to move to the chapter section.
2. Use the number buttons to enter the number of the chapter you want to play and press OK.
3. To clear the banner from the screen, press T. SEARCH two more times.

Entering an Elapsed Time

You can use the Time Search feature to go to a specific point in a title.

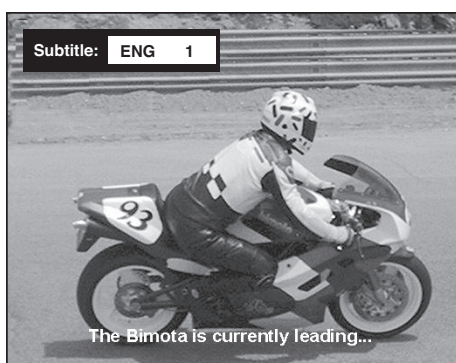
1. Press the T. SEARCH button to bring up the info display. Press again until the Time section is highlighted.
2. Use the number buttons to enter the elapsed time you want to go to in that title. For example, entering 01:35:12 will start playback one hour, thirty-five minutes and twelve seconds into the title.
3. Press T. SEARCH again to clear the display from the screen.

Resume Playback

If you stop playback (by pressing STOP) and want to start again where you left off, press RESUME PLAY. If you press STOP a second time, the resume feature is canceled.

The Resume feature won't work when:

- you select a disc menu language or change the parental lock setting.
- you open the disc tray.



Subtitles

When a DVD is recorded with subtitles, you can use the Subtitle feature to view the subtitles on-screen. To turn subtitles on:

1. Press the SUBTITLE button on the remote during playback. The Subtitle info display appears showing the current setting. The setting is shown as an abbreviated code. For a list of language codes, see page 49.
2. To display subtitles, press the SUBTITLE button again. The languages included on the disc will be displayed. To select a different language, use the up/down arrow buttons to scroll through the available languages. When the desired language is highlighted, press the right/left arrows to turn subtitles on/off.

Notes:

Some DVD video discs are set to display subtitles automatically.

Not all discs display language name or codes.

Depending on the scene, subtitles may not appear immediately after you set the subtitle function to on.

Some DVD discs will only allow you to change subtitle languages and turn subtitles on or off through the disc (top) menu.

When you turn on the player or replace a disc, the player returns to the default setting.

Changing the Audio Language

When a DVD is recorded with multiple soundtracks, you can use the Audio feature to temporarily change the audio language (the language of the soundtrack).

1. During disc playback, press AUDIO on the remote (the audio language info banner appears). The current audio setting is shown as a code. See page 49 for a list of language codes.
2. Press the down arrow key to scroll through available languages.
3. When the highlight is on the desired language, press AUDIO again to select it.

Note: When you play a disc the player's default audio language is selected. If the disc does not contain the language you selected, the disc's default language is automatically selected.

This feature is disc-dependent, and may not work with all DVDs.

Some DVD discs will only let you change the audio language through the DVD (top) menu.

Discs recorded in DVD VR mode

Use the steps above to change the audio language on discs recorded in DVD VR mode. Depending on the disc or the type of broadcast, variation of sound differs.

- **Stereo sound contents**
“Stereo” or “LR” (Left main channel and right sub channel) → “L” (Left main channel) → “R” (Right sub channel) → Back to “Stereo” or “LR”
- **SAP sound contents**
“Main” → “Sub” → “Main and Sub” → Back to “Main”

Changing the Camera Angle

Some DVDs contain multiple angles of a particular scene or sequence.

1. During disc playback, press ANGLE on the remote (The angle icon appears. If no additional camera angles are available, an invalid symbol is displayed).
2. If multiple camera angles are available, the ANGLE icon displays the current angle number and the number of angles available. For example, 1/4 indicates that angle one is being displayed, and there are four different angles available.
3. Press the ANGLE button again to go to the next camera angle.
4. To resume normal playback, scroll through the camera angles until ANGLE turns off.

You can also change the camera angle when playback is paused. The camera angle changes to the new setting when you resume normal playback.

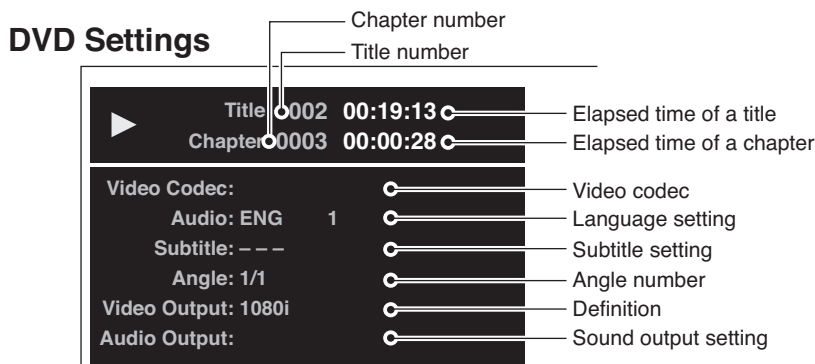
Note: This feature does not work when a DVD has not been recorded with a multi-camera angle system.

Playing Discs

Using the Repeat Feature (DVDs and CDs)

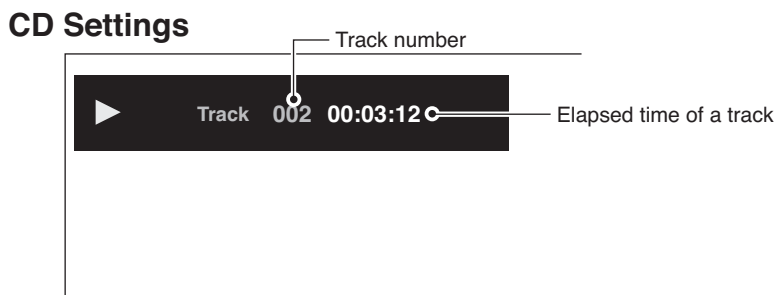
There are five repeat options:

- Chapter – repeats the chapter that is playing
 - Title – repeats the title that is playing
 - Track – repeats the track that is playing
 - All – repeats entire disc
 - Off – turns the repeat function off
1. While a disc is playing, press REPEAT for a list of repeat options.
 2. Use the up/down arrow buttons to select the repeat option you want to use.
 3. Press OK to begin repeat.
 4. To turn repeat off, press the REPEAT button for the list of repeat options. Select the OFF option and press OK, or press the STOP button.



Checking the Operational Status and Settings

To check the current status and settings of the player, press the DISPLAY button on the remote. The display will vary, depending on the disc.



Note: Graphics are for representation only; actual screen graphics are subject to change.

Playing mp3/WMA Files

mp3/WMA is an audio file format which compresses recorded music. The main advantage of the mp3/WMA format is that CD-quality music tracks can be stored on a personal computer in user-friendly compressed files.

1. Press the OPEN/CLOSE button to open the disc tray. Insert the disc with mp3 or WMA files and close the tray. Depending on the recording, playback may begin automatically.
2. If playback doesn't begin automatically, a menu is displayed. Use the arrow buttons to select a file.
3. Press OK.

Playable files

Playable discs:	CD-R, CD-RW
Sampling frequency:	44.1 kHz
Bitrate: WMA:	48 kbps - 192 kbps
mp3:	32 kbps - 320 kbps
Format:	MODE 1
File system:	ISO9660 Level
File name (mp3):	A file name should be alphanumeric (letters and numbers) characters only, and must incorporate the "mp3" extension. (e.g. "*****.mp3") Less than 50 bytes
File name (WMA):	A file name should be alphanumeric (letters and numbers) characters only, and must incorporate the "WMA" extension. (e.g. "*****.WMA") Less than 50 bytes
Total number of files:	Less than 650
WMA codec version:	V7, V8, V9 (Stereo sound only)

This player requires discs/recordings to meet certain technical standards in order to achieve optimal playback quality. There are many different types of recordable disc formats (including CD-R containing MP3/WMA files). Not all recordable discs will produce optimal playback quality. The technical criteria set forth in this user's guide are meant only as a guide. Use of CD-R W for MP3 files is not recommended.

You must obtain any required permission from copyright owners to download or use copyrighted content. Thomson cannot and does not grant such permission.

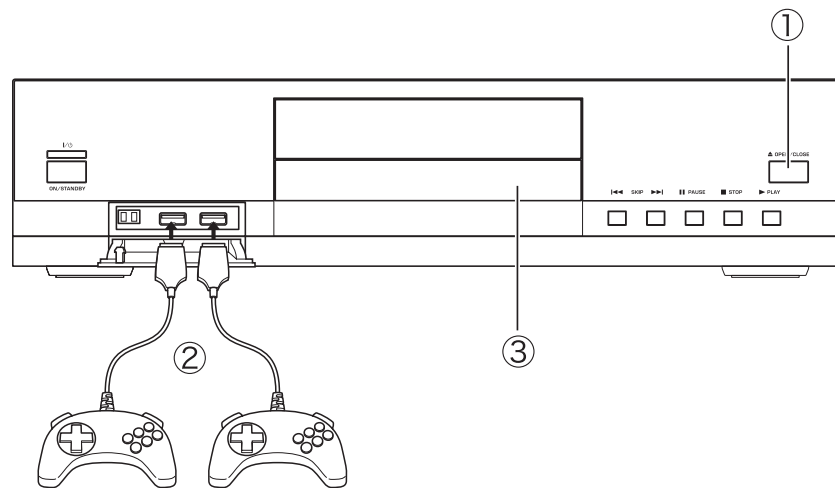
Microsoft, Windows Media, and the Windows Logo are trademarks or registered trademarks of Microsoft Corporation in both the United States and other countries.



Playing Discs

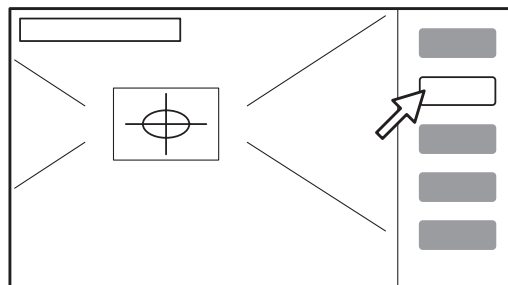
Connecting Game Controllers

Some HD DVD discs include game software and drawing software. Your HD DVD player has two ports where you can connect two game controllers to play games. USB compatible controllers are required. Some disc functions may not work with all controllers.



1. Open the cover on the front panel.
2. Make sure the connector is facing right side up. Connect the controllers to the game controller ports.
3. Insert the HD DVD game disc into the disc tray.
4. Follow the on-screen directions provided on the disc.

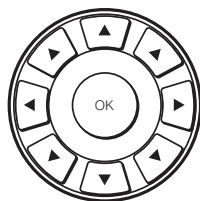
Example: Game/drawing software



Move the cursor to select the game target or selection item. For details on actual operations, also refer to the operations guide for the disc.

Using the Cursor

1. When you are using a disc that supports cursor use, press the CURSOR button on the remote.
2. The cursor appears on-screen. Use the arrow buttons to move the cursor. For detailed information on cursor operations, refer to each disc's guide.





Chapter 3

The Menu System

Chapter Overview:

- The Picture Menu
- The Audio Menu
- The Language Menu
- The Ethernet Menu
- The General Menu

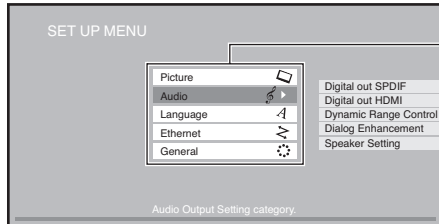
Changing Entertainment. Again.



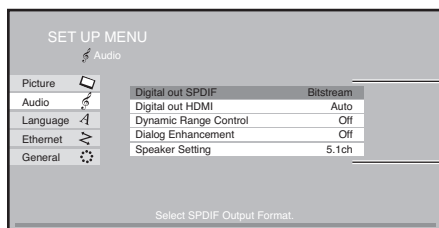
The Menu System

The Setup Menu

The Setup menu lets you customize the settings of your HD DVD player. The various settings are described on the following pages. To change settings:



1. Press the SETUP button on the remote. The Setup menu appears with a list of submenus.
2. Use the arrow buttons to highlight a submenu option and press OK to select it.
3. The submenu options appear on the right. Use the arrow buttons to select an option and press OK.



In the image above, the Audio submenu is selected. The Audio menu options appear on the right.

Note: Graphics are for representation only. Actual on-screen graphics are subject to change.



4:3



4:3 Letterbox



16:9

The Picture Menu

TV Shape

Depending on the type of television you have, you may want to adjust the screen setting (aspect ratio).

4:3

Choose this setting if you want the movie to fill the entire screen of your TV. This might mean that parts of the picture (the left and right edges) won't be seen.

Most discs produced in a widescreen format can't be cropped in this fashion. This means the black bars will appear at the top and the bottom of the screen.

4:3 Letterbox

Choose this setting if you want to see movies in their original aspect ratio (height-to-width ratio). You'll see the entire frame of the movie, but it will take up a smaller portion of the screen vertically. The movie might appear with black bars at the top and bottom of the screen.

16:9

Choose this setting if your player is connected to a widescreen TV. If you choose this setting and you don't have a widescreen TV, the images on the screen may appear distorted.

If you play a disc recorded in 4:3 format on a widescreen TV, black bars will appear on the left and right side of the screen.

Notes:

When an HD DVD disc or a DVD video disc has a set picture shape, the contents may not be compatible with other picture shapes.

DVD video discs containing 4:3 picture format only always display video in 4:3 format regardless of the setting on your player.

Actual picture shape may depend on signal types of broadcasts or input sources, or settings on the connected TV. Refer to your TV User's Guide.

Enhanced Black Level

Black level refers to the quality of black in the picture.

- Select On to display deeper, richer black.
- Select Off to display softer black.

Picture Mode

There are two types of source content in video recorded on DVD video discs: film content (pictures recorded at 24 frames per second) and video content (video signals recorded at 30 frames per second). Make this selection according to the type of content you are viewing, or select the Auto option to have the player automatically detect the type of content.

Film – The player converts film content to the progressive output format. Suitable for playback of film content.

Video – The player filters video signal, and converts it to the progressive output format. Suitable for playback of video content.

Auto – The player automatically detects the source content (film or video) of playback source, and converts that signal to the appropriate progressive output format.

Note: Depending on the disc, the Auto setting may not be able to detect source content. If the picture is doubled, roughened, or abnormal, select the Film or Video option to improve the picture.

The Menu System

The Audio Menu

Digital out SPDIF

Use this option to select the output sound format when an audio device, such as an amplifier, is connected to the DIGITAL AUDIO OUTPUT BITSTREAM/PCM jack on your player.

For details about output sound selection, see page 50.

- **Bitstream**
Select this when an amplifier equipped with built-in Dolby Digital, DTS or MPEG decoder is connected to the player. When you play a disc recorded in Dolby Digital or DTS format, digital audio signal (bitstream audio) is output.
- **PCM**
Select this when a 2 channel digital stereo amplifier is connected to the player. When you play an HD DVD or DVD video disc recorded in Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS or DTS-HD format, sound is converted into PCM (2 channel) format to output.

Digital out HDMI

Use this option to select the output sound format when a device equipped with an HDMI terminal is connected to the HDMI OUTPUT jack on this player.

For details about output sound selection, see page 50.

- **Auto**
Select this when an HDMI device equipped with built-in Dolby Digital, DTS, MPEG or linear PCM decoder is connected to this player. When you play a disc recorded in Dolby Digital or DTS format, digital audio signal (bitstream audio) is output.

If a connected HDMI device does not support Dolby Digital, DTS or MPEG, sound is converted into linear PCM to output.
- **Bitstream**
Select this when an HDMI device equipped with built-in Dolby Digital, DTS or MPEG decoder is connected to this player. When you play a disc recorded in Dolby Digital, DTS or MPEG format, digital audio signal (bitstream audio) is output.
- **PCM**
Select this when an HDMI device which has multi channel output is connected to this player. When you play an HD DVD or DVD video disc recorded in multi channel in Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS or DTS-HD format, the sound is decoded and output in multi channel in linear PCM format.
- **Downmixed PCM**
Select this when a 2 channel digital stereo amplifier is connected to this player. When you play a DVD video disc recorded in Dolby Digital, DTS, MPEG1 or MPEG2 format, sound is converted into PCM (2 channel) format to output.

Dynamic Range Control

This option compresses the dynamic range (quietest sound to loudest sound) of a disc's soundtrack. The Range Control feature evens out the volume by making loud sounds quieter and soft sounds louder.

- **On**
When Dynamic range control is on, the difference between loud and soft noises is lessened. The sound is more even.
- **Off**
When Dynamic range is off, the sound is as it was recorded.

Note: This function is effective only in playback of Dolby Digital recorded HD DVD or DVD video discs. The effect of this option varies depending on the disc.

Dialog Enhancement

This option changes the dialog volume on a DVD disc.

- **On**
When this option is on, the volume of dialog is increased.
- **Off**
When this option is off, dialog is as it was recorded.

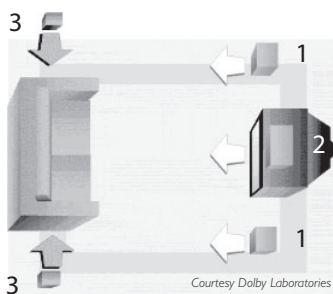
Note: This function works only in playback of Dolby Digital recorded HD DVD or DVD video discs. The effect of this option varies depending on the disc.

This function works only when speaker setting is set to 2 ch.

Speaker Setup

Positioning speakers

Follow the suggestions for speaker placement below to get the best results. Once you have your speakers positioned, adjust the settings.

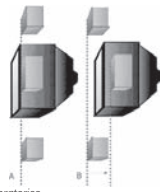


- ① **Left, Right (Front Speakers)**
Front speakers carry primarily music and sound effects.
- ② **Center**
In surround mode, the center speaker carries most of the dialog as well as music and effects. It should be set between the left and right speakers.
- ③ **Surround (Rear Speakers)**
The rear speakers' overall sound balance should be as close as possible to the front speakers. Proper placement is vital to establish an evenly distributed sound field.

Subwoofer

A subwoofer is designed to reproduce powerful low bass effects (explosions, the rumble of spaceships, etc.) which dramatically heighten the action on the screen.

The Menu System



Courtesy Dolby Laboratories

Front Speaker Placement

Alignment

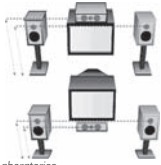
Align the center speaker evenly with (A) or slightly behind (B) (the left and right speakers), but not ahead of them.

Angle

Place the left and right speakers to form a 45-degree angle with your favorite viewing position to duplicate the soundtrack mixer's perspective.

Height

The mid- and high-frequency drivers of the three front speakers should be as close as possible to the same height. This often requires placing the center speaker directly on top (A) or beneath (B) the TV set.



Courtesy Dolby Laboratories

Preferred Surround Placement

Location

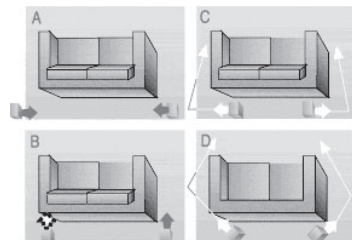
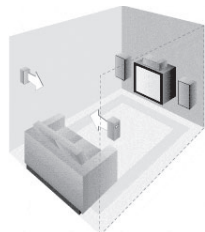
If possible, place surround speakers to either side of the listening area, not behind it.

Height

If space permits, install surround speakers 2-3 feet above viewers. This helps to minimize localization effects.

Aiming

Aim surround speakers straight across the room, not down at viewers, to help create a more open, spacious surround sound field.



Alternative Surround Placement

Rear Wall

If rear wall mounting is the only choice, aim the speakers at each other (A), towards the front (B) or towards the sidewalls (C, D). Experiment with placement until sounds seem to surround you, rather than come from behind you.

Speaker Setting

Use this option to select parameters for the analog 5.1 channel output.

- **2ch**
Select when a 2 channel stereo system is connected to the player.
- **5.1ch**
Select when a 5.1 channel surround system is connected to the player.

When you select 5.1 ch, you can set the speaker sizes, distance to each speaker and the crossover frequency.

Crossovers split the audio signal into separate frequency bands and sends the frequencies to the speakers that are capable of playing them. For example, if your small speakers can't play frequencies lower than 80Hz, the crossover will separate the audio signal so frequencies lower than 80Hz will go to a larger speaker that is capable of playing them. You can choose between 80 Hz/100 Hz/120 Hz.

- 1 Select a speaker by pressing the arrow buttons, and press OK.
- 2 Select the size by pressing the up/down buttons, and press OK.

Front Left / Front Right

Small: If the speaker cannot output low frequency, select the appropriate Crossover Setting.

Large: If the speaker can output low frequency, select the appropriate Crossover Setting.

Center / L Surround / R Surround

Small: If the speaker cannot output low frequency, select the appropriate Crossover Setting.

Large: If the speaker can output low frequency, select the appropriate Crossover Setting.

None: Select if no speaker is connected.

Subwoofer

Select when a subwoofer is connected.

Setting the Speaker Distance

1. Select a distance to each speaker from the listening position.
2. Select Next by pressing the arrow buttons, and press OK.
3. Select Automatic Test Tone by pressing the arrow buttons, and press OK.
4. A test signal is sent to each speaker. Adjust the volume of each speaker by pressing the right/left arrow buttons to select a speaker, and pressing the up/down arrow buttons to adjust the volume of that speaker. .
Note: For further adjustment, check the channel balance on the amplifier.
5. When complete, select OK and press the OK button.

The Language Menu

Disc Menu Language

This option lets you select which language you want the disc (top) menu displayed in.

You can select a language from the list, or, if the language you want isn't listed, you can input the language of your choice by using the Language Code List.

1. Get the language code of your preferred language from the Language code list (page 49).
2. Select the first character by pressing the up/down arrow buttons.
3. Press the right/left arrow buttons to move to the next position. Select the second character with the up/down arrow buttons.
4. Select OK and press the OK button.

Note: The menu language will only appear in the language you have selected if the disc was programmed to display that language. Languages vary from disc to disc.

The Menu System

Subtitle Language

This option lets you select which language you want subtitles displayed in.

You can select a language from the list, or, if the language you want isn't listed, you can input the language of your choice by using the Language Code List.

1. Get the language code of your preferred language from the Language code list (page 49).
2. Select the first character by pressing the up/down arrow buttons.
3. Press the right/left arrow buttons to move to the next position. Select the second character with the up/down arrow buttons.
4. Select OK and press the OK button.

Note: The subtitle language will only appear in the language you have selected if the disc was programmed with subtitles in that language. Languages vary from disc to disc.

Some discs only allow you to change subtitle language from the disc (top) menu.

Audio Language

This option lets you choose a preferred soundtrack language. You can select a language from the list, or, if the language you want isn't listed, you can input the language of your choice by using the Language Code List.

1. Get the language code of your preferred language from the Language code list (page 49).
2. Select the first character by pressing the up/down arrow buttons.
3. Press the right/left arrow buttons to move to the next position. Select the second character with the up/down arrow buttons.
4. Select OK and press the OK button.

Note: The audio language will only be played in the language you choose if the disc was programmed with that language. Languages vary from disc to disc.

On Screen Language

This option lets you select a preferred language for the HD DVD player's on-screen displays.

You can choose between English, French and Japanese.

The Ethernet Menu

This menu offers options that are required in order to use the internet feature. It contains settings necessary to use the web access function connecting this player to internet. See page 44 for a full description of the options.

The General Menu

Parental Lock

Creating a Password

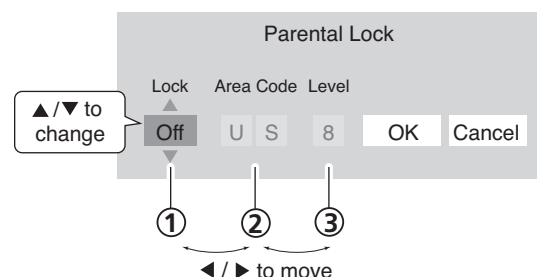
You can use the Parental Lock feature to control what types of movies your family watches. When Parental Lock is on, a password is required to watch movies with certain ratings (you can set which ratings require a password).

When you use your HD DVD player for the first time, enter a 4-digit password using the number buttons and press OK. If you make a mistake, press the CLEAR button before pressing OK.

Changing the Password

To change the password:

1. At the Parental Lock menu, press the STOP button 4 times, then press OK. The password is cleared.
2. Enter a new 4-digit password by using the number buttons.
3. Press OK.



COUNTRY AREA CODE LIST

AU	AUSTRALIA	NL	NETHERLANDS
BE	BELGIUM	NO	NORWAY
CA	CANADA	PH	PHILIPPINES
CN	CHINA	RU	RUSSIAN FEDERATION
HK	CHINA HONG KONG	SG	SINGAPORE
DK	DENMARK	ES	SPAIN
FI	FINLAND	SE	SWEDEN
FR	FRANCE	CH	SWITZERLAND
DE	GERMANY	TW	TAIWAN
ID	INDONESIA	TH	THAILAND
IT	ITALY	GB	UNITED KINGDOM
JP	JAPAN	US	UNITED STATES
MY	MALAYSIA		

Setting Parental Lock

1. Select On or Off by pressing the up/down arrow buttons. Press the right arrow button to move to the Area Code field.
2. Press the up/down arrow buttons to enter the code of a country/area whose standards were used to rate a disc (see country list on the left). Press the right arrow button to move to the Level field.
3. Select the desired rating level by pressing the up/down arrow buttons.

The ratings for the US are as follows:

- Level 1 : G
- Level 3 : PG
- Level 4 : PG13
- Level 6 : R
- Level 7 : NC-17

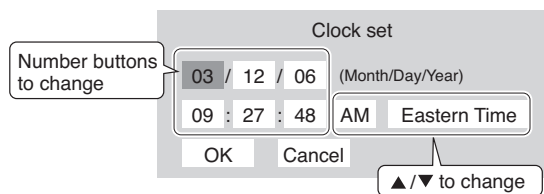
4. Select "OK" then press OK button.

When Parental Lock is turned on, a disc that has a higher rating level than your selected rating level cannot be played back. For example, if you select level 7, discs exceeding level 8 are locked and cannot be played back.

Changing the Parental Lock Rating Level

To change the rating level of the Parental Lock function, follow steps 1 - 3 above.

The Menu System



Clock Set

To set the clock of the player.

1. Press the arrow buttons to select the field you want to change.
2. Press the number buttons to change the digits to set the date and time.
3. Press the up/down arrow buttons to select AM or PM and your time zone.
4. Select OK and press the OK button.

The clock starts.

OSD On/Off

Use this option to turn on-screen displays on or off.

Remote Control Sound

When remote control sound is on, a beep sounds to tell you a remote command has been received. You can turn the sound off.

Screen Saver

Your HD DVD player has a screen saver function that helps protect your TV from image burn when still image stays on-screen for a prolonged period of time. When playback has been paused for 20 minutes, the screen saver is activated. The screen saver will disappear from the screen when you resume playback or perform another function.

You can turn off the screen saver so it doesn't appear at all. However, it is recommended that you keep the screen saver function activated.

Skin

Use this option to select the pattern of the on screen controls.

Maintenance

Initialize

This option resets all the settings to the factory default settings.

Update

If you have your HD DVD player connected to the Internet, you can use this option to confirm the current version of software and to download software updates and to confirm. Before you can use this function, the player needs to be connected to the Internet via an always-on broadband connection. For details on connecting, go to page 42.

Note: Before you download a software update, an End User License Agreement will appear on-screen. You must agree with the terms and conditions in order to download the update.

To download software updates, press the SETUP button. Follow the instructions displayed on your screen. If there is no update available, a message appears and the process is canceled. Please check the support section of the RCA website for information about software updates (including information on how to obtain updates on disc rather than using the Internet Connection feature of the player).

If you do not have the player connected to the Internet, go to the RCA customer support section of the website for details on how to obtain updates on a disc, or if you don't have Internet access, call RCA customer support.

Caution!

Do not unplug, turn off or use any other feature of the player during the download. The writing of the software being downloaded will be halted and the player may no longer work properly. If the player stops working, contact RCA Customer Support.

Persistent Storage

This option lets you control the HD DVD player's memory allocated to contents. The menu selections vary depending on the contents. Follow the on-screen instructions.



Chapter 4

Using an Internet connection

Chapter Overview:

- Before You Connect to the Internet
- Connecting to the Internet
- Internet Settings

Changing Entertainment. Again.



Using an Internet Connection

Before you Connect to the Internet

If you connect the player to the Internet via an always-on broadband connection, you can directly access special HD DVD sites. For example, if an HD DVD site includes content such as movie trailers, you can watch the content on the player via the Internet. You will also be able to download software updates for the player when available.

You do not need to connect to a PC, you can connect directly from your HD DVD player.

Requirements

An always-on internet broadband internet connection is required to connect your HD DVD player to the Internet.

A 10 Base-T or 100 Base-TX LAN port is required for connection to this player. If your internet service does not allow for such a connection, you will not be able to connect the player. If a cable LAN connection is not available in your home, use an optional wireless LAN ethernet adapter to access a wireless LAN access point.

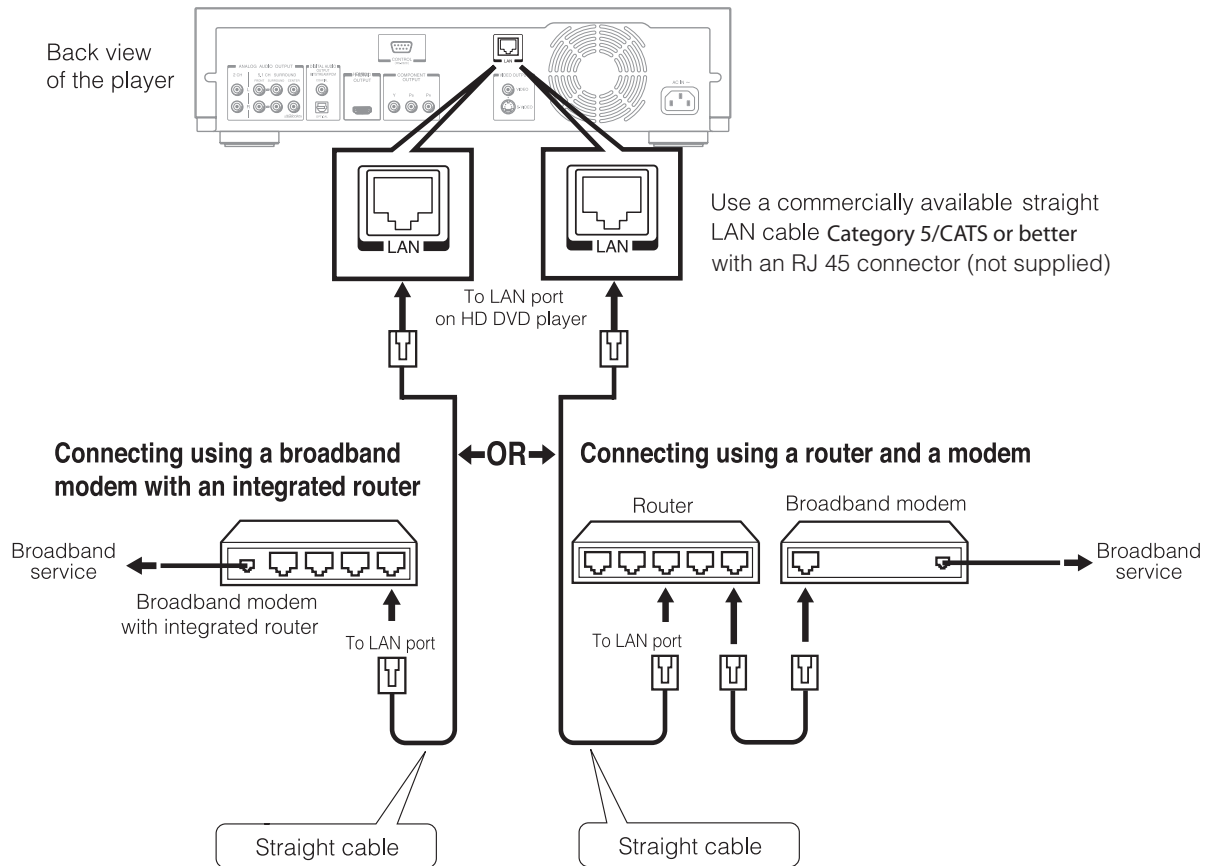
A DSL modem is required to use DSL service and a cable modem is required to use cable modem service. Depending on the access method of and subscriber agreement with your Internet Service Provider, you may not be able to use the internet connection feature contained in this player or you may be limited to the number of devices you can connect at the same time. (If your ISP limits subscription to one device, this player may not be allowed to connect when a PC is already connected.)

Before using this feature, please read and understand the important information below.

- This always-on internet broadband internet connection requirement may change without advance notice. All operations are not guaranteed.
- Thomson is not responsible for any malfunction of the player and/or the internet connection feature due to communication errors/malfunctions with your broadband internet connection, or other connected equipment.
- Thomson is not responsible for any trouble in your internet connection.
- The features of HD DVD discs made available through the Internet Connection feature are not created or provided by Thomson, and Thomson is not responsible for their functionality or continued availability. Some disc related material available by the Internet Connection may not be compatible with this player. If you have questions about such content, please contact the producer of the disc.
- Some internet content may require a higher bandwidth connection.
- You do not need to connect to a PC to use the Internet.
- An HD DVD disc compatible with this feature (commercially available) is required. Not all HD DVD discs are compatible.
- Even if the player is properly connected and configured, some internet content may not operate properly because of internet congestion, the quality or bandwidth of your internet service, problems at the provider of the content or compatibility issues.
- The communication features of this player comply with the Institute of Electrical and Electronic Engineers (IEEE) 802.3.
- Some internet connection operations may not be possible due to certain restrictions set by the Internet service provider (ISP) supplying your broadband Internet connection.
- Any fees charged by an ISP including, without limitation, connection charges are your responsibility.
- The use of a Router may not be allowed or its usage may be limited depending on the policies and restrictions of your ISP. For details, contact your ISP directly.

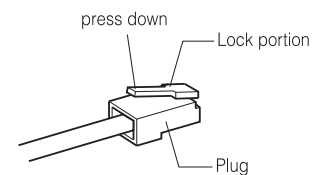
Using an Internet Connection

Connecting to the Internet



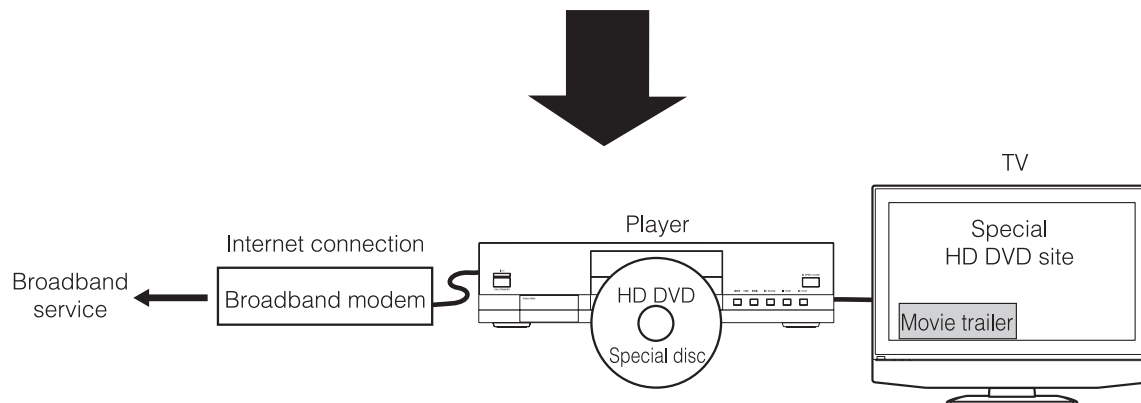
Caution

- When plugging or unplugging the LAN cable, hold the plug portion of the cable. When unplugging, do not pull on the LAN cable. Unplug while pressing down on the lock.
- Do not connect the modular phone cable to the LAN port.
- Since there are various connection configurations, please follow the specifications of your telecommunication carrier or internet service provider.



Note

- Depending on the internet service provider (ISP), the number of devices that can receive internet service may be limited by the applicable terms of service. For details, contact your ISP.



Using an Internet Connection

Internet Settings

DHCP

DHCP On Off

IP Address 0 . 0 . 0 . 0

Subnet Mask 0 . 0 . 0 . 0

Gateway 0 . 0 . 0 . 0

DNS On Off

DNS Server 0 . 0 . 0 . 0

Confirm

OK Cancel

Skipped when "DHCP" is set to "On".

DHCP

DHCP On Off

IP Address 0 . 0 . 0 . 0

Subnet Mask 0 . 0 . 0 . 0

Gateway 0 . 0 . 0 . 0

DNS On Off

DNS Server 0 . 0 . 0 . 0

Confirm

OK Cancel

Skipped when "DHCP" is set to "On".

Proxy Setting

Proxy On Off

Server a

Port 0

User a

Password *****

OK Cancel

User information

User A

Password *****

OK Cancel

DHCP setting

1. Press the SETUP button on the remote. The Setup menu appears.
2. Use the arrow buttons to highlight the Ethernet option, then press OK.
3. Use the arrow buttons to highlight the DHCP option, then press OK.
4. Set the DHCP option to On, then press OK.
5. Set the DNS option to On, then press OK.
6. Select Confirm, then press OK. Confirming starts.
7. If the setup is successful, an IP appears. Press the OK button.

If the setup is not successful:

1. Set the DHCP option to Off then press OK.
2. Input the addresses into IP address, Subnet Mask and Gateway using the number buttons.
Refer to the table on the next page.
3. Set the DNS option to Off then press OK.
4. Input the address into DNS Server.
5. Press OK. Confirming starts.

Proxy setting

Use this setting only if your provider requires a proxy setting.

1. On the Ethernet menu, press the arrow buttons to select Proxy setting, then press OK.
2. Set the Proxy option to ON and press OK.
3. Use the arrow buttons to input information into the Server, Port, User and Password fields.
4. Select OK and press the OK button.

User Name and Password

1. On the Ethernet menu, use the arrow buttons to select the User Information option, then press OK.
2. Select User and press OK.
3. Use the up/down arrow buttons to input letters/numbers. Use the right/left arrow buttons to move to a new position. Press OK.
4. Select Password and press OK. Input your password using the arrow buttons as described above. Press OK.
5. When your password is entered, Select OK and press the OK button.

Using an Internet Connection

Clock Adjustment Setting

1. On the Ethernet menu, press the up/down buttons to select the NTP Server option, then press OK.
2. Select On or Off by pressing the up/down arrow buttons.
Refer to the table below.
3. Select OK then press the OK button.

Information on Internet Settings

DHCP	On*	Network information will be automatically set.		
	Off	Network information will be manually set.		
		IP Address	This sets a different address within the same subnet of the PC on your network. e.g.: If the IP address of the PC is 192.168.1.10, set 192.168.1.15 (or some other unused address).	
		Subnet Mask	This sets the subnet mask of the network environment that will be connected. e.g.: 255.255.255.0	
		Gateway	This sets the gateway used by the player (e.g.; 192.168.11).	
DNS	This sets the DNS server to be used by the player. e.g.; 192.168.1.1			
Proxy Setting	Off*	This is set when your provider does not require proxy setting.		
	On	Enter the proxy server address when your provider requires proxy setting. (Up to 63 single-byte alphanumeric characters or symbols)		
Mac Address	(Unable to set)	Displays the MAC address of the player. It cannot be changed.		
User Information	User	Set a user name and a password to prevent improper access. Select a password that is unique and not known to or easily guessed by others. (Example of passwords to avoid: your name or your family's name, telephone number, birth date, street number of address, and car license plate numbers, as well as repetition of the same number or symbol.) When the password is entered, the characters are displayed as "*". If you forget the password, enter a new password.		
	Password			
NTP Server	On*	The player automatically accesses an internet server to adjust its clock via the network time protocol.		
	Off	The player does not access an internet server to adjust its clock.		

*indicates default setting

Notes

- Please contact the router manufacturer when the router DHCP feature is not operating properly.
- The firmware in this player is updateable.

Using Your Internet Connection

1. Insert an HD DVD disc and close the disc tray.
2. If the disc does not begin to play automatically, press PLAY.
3. If a menu does not appear, press TOP MENU or MENU.
4. Use the arrow buttons to select an item from the menu and press OK.



This page intentionally left blank.





Chapter 5

Other Information

Chapter Overview:

- Troubleshooting
- Language Code List
- Output Sound Conversion Table
- Limited Warranty
- Information on Software Updates

Changing Entertainment. Again.



Other Information

Troubleshooting

Symptom	Solution
■ No power.	<ul style="list-style-type: none">· Is the power plug disconnected?
■ Power turns off during operation. ■ No picture.	<ul style="list-style-type: none">· Is the HD DVD player installed in a place with poor ventilation, or are its ventilation holes on the back covered? If the inside temperature raises, the HD DVD player turns itself off. Make sure the HD DVD player is in a well ventilated area.· Is the cable for connecting the player and TV disconnected or not connected properly?· Switch the input of the connected TV to the signal from the player.· When the TV is connected via the component jacks or HDMI jacks, images from the player may temporarily not be able to be displayed because of the selected output and resolution. Use the V.OUTPUT and RESOLUTION buttons to change the output and resolution.
■ No sound.	<ul style="list-style-type: none">· Is the audio cable disconnected?· Is the volume of the device turned down to the minimum level?· Switch the audio input of the device connected to the player, i.e., the audio amplifier input· Set Digital out SPDIF or Digital out HDMI in accordance with the connected device and connection procedure.
■ Multi channel sound is not output.	<ul style="list-style-type: none">· Set the Speaker Setting to 5.1ch.
■ The disc does not play.	<ul style="list-style-type: none">· Make sure the disc type can be played with the player.· Is the disc dirty or scratched?· If the disc is a DVD-RW or DVD-R disc, finalize the disc before attempting to play it with the player.· If the disc includes parent lock support, playback is restricted while the parent lock of the player is set. Cancel Parent Lock or change the restriction level.
■ Playback picture has noise.	<ul style="list-style-type: none">· If video from the player is watched via a video recorder or on a TV with a built-in video recorder, the copy guard may prevent images from being displayed properly. Be sure to connect the player directly to the TV.
■ The remote control does not work.	<ul style="list-style-type: none">· Are the batteries of the remote control dead?· Make sure the remote control is within range and pointed in the correct direction.
■ Screen freezes and no buttons work.	<ul style="list-style-type: none">· Pressing the ON/STANDBY button on the player for approximately ten seconds forces the player to turn off. Turn the player off and then on again.

IMPORTANT!

DO NOT RETURN THIS PRODUCT TO YOUR DEALER.

If you experience problems, call RCA customer support or mail your product in for replacement.

See the warranty on page 51 for details.

Language Code List

Abbreviation	Language	Abbreviation	Language	Abbreviation	Language
---	No alternate language	GN	Guarani	PT	Portuguese
CHI (ZH)	Chinese	GU	Gujarati	QU	Quechua
DUT (NL)	Dutch	HA	Hausa	RM	Rhaeto-Romance
ENG (EN)	English	HI	Hindi	RN	Kirundi
FRE (FR)	French	HR	Croatian	RO	Rumanian
GER (DE)	German	HU	Hungarian	RU	Russian
ITA (IT)	Italian	HY	Armenian	RW	Kinyarwanda
JPN (JA)	Japanese	IA	Interlingua	SA	Sanskrit
KOR (KO)	Korean	IE	Interlingue	SD	Sindhi
MAY (MS)	Malay	IK	Inupiak	SG	Sango
SPA (ES)	Spanish	IN	Indonesian	SH	Serbo-Croatian
AA	Afar	IS	Icelandic	SI	Singhalese
AB	Abkhazian	IW	Hebrew	SK	Slovak
AF	Afrikaans	JI	Yiddish	SL	Slovenian
AM	Amharic	JW	Javanese	SM	Samoan
AR	Arabic	KA	Georgian	SN	Shona
AS	Assamese	KK	Kazakh	SO	Somali
AY	Aymara	KL	Greenlandic	SQ	Albanian
AZ	Azerbaijani	KM	Cambodian	SR	Serbian
BA	Bashkir	KN	Kannada	SS	Siswati
BE	Belorussian	KS	Kashmiri	ST	Sesotho
BG	Bulgarian	KU	Kurdish	SU	Sundanese
BH	Bihari	KY	Kirghiz	SV	Swedish
BI	Bislama	LA	Latin	SW	Swahili
BN	Bengali, Bangla	LN	Lingala	TA	Tamil
BO	Tibetan	LO	Laotian	TE	Telugu
BR	Breton	LT	Lithuanian	TG	Tajik
CA	Catalan	LV	Latvian, Lettish	TH	Thai
CO	Corsican	MG	Malagasy	TI	Tigrinya
CS	Czech	MI	Maori	TK	Turkmen
CY	Welsh	MK	Macedonian	TL	Tagalog
DA	Danish	ML	Malayalam	TN	Setswana
DZ	Bhutani	MN	Mongolian	TO	Tongan
EL	Greek	MO	Moldavian	TR	Turkish
EO	Esperanto	MR	Marathi	TS	Tsonga
ET	Estonian	MT	Maltese	TT	Tatar
EU	Basque	MY	Burmese	TW	Twi
FA	Persian	NA	Nauru	UK	Ukrainian
FI	Finnish	NE	Nepali	UR	Urdu
FJ	Fiji	NO	Norwegian	UZ	Uzbek
FO	Faroese	OC	Occitan	VI	Vietnamese
FY	Frisian	OM	(Afan) Oromo	VO	Volapük
GA	Irish	OR	Oriya	WO	Wolof
GD	Scottish Gaelic	PA	Panjabi	XH	Xhosa
GL	Galician	PL	Polish	YO	Yoruba
		PS	Pashto, Pushto	ZU	Zulu

Other Information

Output Sound Conversion Table

Disc	Audio Format	Analog 5.1ch/2ch	Digital out SDPIF		
			Bitstream	PCM	
HD DVD Video Standard contents	DD plus 5.1ch	5.1ch/2ch	Bitstream*2	2ch PCM	
	True HD	48kHz	2ch/2ch	2ch PCM	2ch PCM
		96kHz	2ch/2ch	2ch PCM*1	2ch PCM*1
		192kHz	2ch/2ch	2ch PCM*1	2ch PCM*1
	dts-HD	5.1ch	5.1ch/2ch	Bitstream*3	2ch PCM*4
	L-PCM	48kHz	Yes	2ch PCM	2ch PCM
		96kHz	Yes	2ch PCM*1	2ch PCM*1
192kHz		2ch/2ch	2ch PCM*1	2ch PCM*1	
MPEG		2ch/2ch	Bitstream	2ch PCM	
Advanced con.		5.1ch/2ch	DTS Bitstream	2ch PCM	
DVD-Video	DD 5.1ch	5.1ch/2ch	Bitstream	2ch PCM	
	L-PCM	48kHz	2ch/2ch	2ch PCM	2ch PCM
		96kHz	2ch/2ch	2ch PCM*1	2ch PCM*1
	dts	5.1ch	5.1ch/2ch	Bitstream	2ch PCM*4
	MPEG		2ch/2ch	Bitstream	2ch PCM
CD	L-PCM	44.1kHz	Yes	2ch PCM	2ch PCM
	dts	44.1kHz	Yes	Bitstream	2ch PCM
	MP3		2ch/2ch	2ch PCM	2ch PCM
	WMA		2ch/2ch	2ch PCM	2ch PCM
DVD-VR	DD		Yes	Bitstream	2ch PCM
	L-PCM		Yes	2ch PCM	2ch PCM
	MPEG		Yes	Bitstream	2ch PCM

Disc	Audio Format	Digital out HDMI				
		Auto	Bitstream	PCM	Downmixed PCM	
HD DVD Video Standard contents	DD plus 5.1ch	Depend on HDMI receiver	Bitstream*2	upto 5.1ch PCM	2ch PCM	
	True HD	48kHz	Depend on HDMI receiver	2ch PCM	2ch PCM	2ch PCM
		96kHz	Depend on HDMI receiver	2ch PCM*1	2ch PCM*4	2ch PCM*1
		192kHz	Depend on HDMI receiver	2ch PCM*1	2ch PCM*4	2ch PCM*1
	dts-HD	5.1ch	Depend on HDMI receiver	Bitstream*3	upto 5.1ch PCM*4	2ch PCM*4
	L-PCM	48kHz	Depend on HDMI receiver	2ch PCM	Multi PCM	2ch PCM
		96kHz	Depend on HDMI receiver	2ch PCM*1	Multi PCM*4	2ch PCM*1
192kHz		Depend on HDMI receiver	2ch PCM*1	2ch PCM*4	2ch PCM*1	
MPEG		Depend on HDMI receiver	Bitstream	2ch PCM	2ch PCM	
Advanced con.	Depend on contents	Depend on HDMI receiver	2ch PMC*1	96kHzMulti PCM*4	2ch PCM*1	
DVD-Video	DD 5.1ch	Depend on HDMI receiver	Bitstream	Multi PCM	2ch PCM	
	L-PCM	48k	Depend on HDMI receiver	2ch PCM	2ch PCM	
		96k	Depend on HDMI receiver	2ch PCM*1	2ch PCM*4	2ch PCM*1
	dts	5.1ch	Depend on HDMI receiver	Bitstream	Multi PCM	2ch PCM
MPEG		Depend on HDMI receiver	Bitstream	2ch PCM	2ch PCM	
CD	L-PCM	44.1kHz	2ch PCM	2ch PCM	2ch PCM	
	dts	44.1kHz	Depend on HDMI receiver	Bitstream	Multi PCM	2ch PCM
	MP3		2ch PCM	2ch PCM	2ch PCM	
	WMA		2ch PCM	2ch PCM	2ch PCM	
DVD-VR	DD	Depend on HDMI receiver	Bitstream	Multi PCM	2ch PCM	
	L-PCM		2ch PCM	2ch PCM	2ch PCM	
	MPEG	Depend on HDMI receiver	Bitstream	2ch PCM	2ch PCM	

*1: Downsampling PCM.

*2: Bitstream audio output is possible only when the connected HDMI device has bitstream decoding function. If not, sound is output in PCM (48kHz) format.

*3: Multi channel PCM audio output is possible only when the connected HDMI device has multi channel decoding function.

*4: This out format is possible only when the resolution is set to 720p or 1080i. When 480p is selected this will be 48kHz 2ch PCM.

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license from Digital Theater Systems, Inc. U.S. Pat. No's. 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535 and other U.S. and world-wide patents issued and pending. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.
Copyright 1996, 2003 Digital Theater Systems, Inc. All Rights Reserved.

Notes

- Some discs allow you to change audio selections only via the disc menu. If this is the case, press TOP MENU button and choose the appropriate language from the selections on the disc menu.
- When you turn on the player or replace a disc, the player returns to the initial default setting. Depending on a disc, a specific type of audio the disc has is output.
- Immediately after you have switched sounds, there may be a temporary discrepancy between the display and actual sound.
- The BITSTREAM/PCM jack may not output SAP sound you select. In this instance, set "Digital out SPDIF" to "PCM".

Limited Warranty

What your warranty covers:

- Defect in materials or workmanship.

For how long after your purchase:

- 90 days from date of purchase - Unit exchange, which includes parts and labor.
- 91 days to 1 year from date of purchase - Unit exchange, which includes parts only; you pay the labor.
- The warranty for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.

What we will do:

During the initial 90 days:

- Provide you with a new, or at our option, a refurbished unit. The exchange unit is under warranty for the remainder of the original product's warranty period.

After the 90 days and within one year:

Provide you with a new or, at our option, refurbished unit. The exchange unit is under warranty for the remainder of the original product's warranty period. We will bill you a flat exchange charge to replace a defective unit. This charge covers the labor cost for its repair.

How to make a warranty claim:

- Call 1-800-311-9263 and have your unit's date of purchase and model/serial number ready. The model/serial number information is on the back of your unit.
- A representative will troubleshoot your problem over the phone.
- If the representative determines that you should receive a replacement unit you will be provided with a Service Request (SR) number and instructions on how and where to return your unit.
- Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the product is within the warranty period must be presented to obtain warranty service. For rental firms, proof of first rental is also required.

What your warranty does not cover:

- Acts of nature, such as but not limited to lightning damage.
- Adjustment of customer controls.
- Damage from misuse or neglect.
- A unit that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- Batteries.
- Units purchased or serviced outside the U.S.A.
- Shipping damage if the unit was not packed and shipped in the manner prescribed by Thomson.

Product Registration:

Please complete the online Product Registration on RCA.com/productregistration or complete and mail the Product Registration Card packed with your unit. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

Limitation of Warranty:

- THE WARRANTY STATED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THIS PRODUCT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED (INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY DISCLAIMED. NO VERBAL OR WRITTEN INFORMATION GIVEN BY THOMSON INC., ITS AGENTS OR EMPLOYEES SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY.
- REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. THOMSON INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT OR ARISING OUT OF ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THIS DISCLAIMER OF WARRANTIES AND LIMITED WARRANTY ARE GOVERNED BY THE LAWS OF THE STATE OF INDIANA. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.



Other Information

How state law relates to warranty:

- Some states do not allow the exclusion nor limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
- This warranty gives you specific legal rights, and you also may have other rights that vary from state to state.

If you purchased your product outside the United States:

- * This warranty does not apply. See your dealer for warranty information.

Information on software updates

- If you connect your HD DVD player to the internet, you can receive software updates if available. See page 42.
- If you do not have an internet connection, you can get software updates on a disc. For information on how to get a disc with software updates, go to www.rca.com or call RCA customer support.

License Information on the Software used in the RCA HD DVD Receiver

This document is statement purpose only. Not concerned with operation of this product.

The software pre-installed in the RCA HD DVD player consists of multiple, independent software components. Each software component is copyrighted by RCA or a third party. The RCA HD DVD player uses software components that are distributed as freeware under a third-party end-user license agreement or copyright notice (hereinafter referred to as a "EULA"). Some EULAs require that the source code of the applicable component be disclosed as the condition for distributing the software component in executable format. You can check the software components subject to such EULA requirements on the following phone number:
Phone number: 1-800-311-9263

The software components of the RCA HD DVD player also include software developed or created independently by RCA. Such software and accompanying documents are owned by RCA and protected under copyright laws, international treaty provisions and other governing laws. See the attached "Software License Agreement" for the terms and conditions governing the use of software components owned by RCA. Source code is not disclosed for the software components developed or created independently by RCA that are not subject to any EULA. RCA provides a warranty for the RCA HD DVD player you have purchased under conditions set forth by RCA.

However, some of the software components distributed under an EULA are made available for use by the user on the assumption that they are not copyrighted or warranted by RCA or any third party. These software components are licensed to the user free of charge and therefore not covered by any warranty within the scope of the applicable laws. These software components are not subject to any copyrights or other third-party rights and are provided in "as is" condition without any warranty, whether express or implied. "Warranty" here includes, but not limited to, an implied warranty for marketability or fitness for specific uses. All risks associated with the quality or performance of these software components are assumed by the user. RCA shall not be liable whatsoever for any cost of repair or correction or other incidental expense incurred in connection with a defect found in any of these software components. Unless specified under the applicable laws or in a written agreement, a party who changes or redistributes the software with consent from the copyright holders or based on the aforementioned licenses shall not be held liable whatsoever for any loss arising from the use of or inability to use such software components. The same applies even when the copyright holders or relevant third parties have been informed of the possibility of such loss, "Loss" here includes normal, special, incidental and indirect loss (including, but not limited to, the loss of data or its accuracy; loss incurred by the user or any third party; and interface incompatibility with other software). Please read each EULA for details on the use conditions and items that must be observed regarding these software components.

The table below lists the software components pre-installed in the RCA HD DVD player, which are subject to EULAs. The user should read the applicable EULAs carefully before using these software components. The EULAs are exhibited in their original text (English) as exactly written by the respective parties other than RCA

Pre-installed software	EULA	Pre-installed software	EULA
Linux Kernel	Exhibit A	OpenSSL	Exhibit C
Busybox		libpng	Exhibit D
glibc	Exhibit B	freetype	Exhibit E
gcc			
libcdaudio			
mpeg123			

Exhibit A

GNU GENERAL PUBLIC LICENSE Version 2, June 1991

Copyright © 1989, 1991 Free Software Foundation, Inc.
59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty, keep intact all the notices that refer to this License and to the absence of any warranty, and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

- If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License.

(Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions

Other Information

on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7.If as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all.

For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8.If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9.The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10.If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11.BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW, EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

Exhibit B

GNU LESSER GENERAL PUBLIC LICENSE Version 2.1, February 1999

Copyright © 1991, 1999 Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software – to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages – typically libraries – of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest

12.IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<One line to give the program's name and a brief idea of what it does.>

Copyright © 19yy <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright © 19yy name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'. This is free software, and you are welcome to redistribute it under certain conditions; type 'show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items – whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program; if necessary, here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989 Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0.This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law; that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1.You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2.You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.
(For example, a function in a library to compute square roots has a purpose that is entirely welldefined independent of the application. Therefore, Subsection 2d requires that any applicationsupplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you, rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications. You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright © <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names: Yoodyne, Inc., hereby disclaims all copyright interest in the library "Frob" (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

Other Information

Exhibit C

LICENSE ISSUES

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit.

See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

OpenSSL License

Copyright © 1998-2002 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment:

"This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)"

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment:

"This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>)"

THIS SOFTWARE IS PROVIDED BY THE OPENSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OPENSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)

HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (ey@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

Copyright © 1995-1998 Eric Young (ey@cryptsoft.com) All rights reserved.

This package is an SSL implementation written by

Eric Young (ey@cryptsoft.com).

The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are adhered to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed.

If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used.

This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment:

"This product includes cryptographic software written by Eric Young (ey@cryptsoft.com)"

The word "cryptographic" can be left out if the routines from the library being used are not cryptographic related :-).

4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgment:

"This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed, i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

Exhibit D

This copy of the libpng notices is provided for your convenience. In case of any discrepancy between this copy and the notices in the file png.h that is included in the libpng distribution, the latter shall prevail.

COPYRIGHT NOTICE, DISCLAIMER, and LICENSE:

If you modify libpng you may insert additional notices immediately following this sentence.

libpng version 1.2.6, December 3, 2004, is

Copyright © 2004 Glenn Randers-Pehrson, and is

distributed according to the same disclaimer and license as libpng-1.2.5 with the following individual added to the list of Contributing Authors

Cosmin Truta

libpng versions 1.0.7, July 1, 2000, through 1.2.5 - October 3, 2002, are Copyright © 2000-2002 Glenn Randers-Pehrson, and are distributed according to the same disclaimer and license as libpng-1.0.6 with the following individuals added to the list of Contributing Authors

Simon-Pierre Cadieux

Eric S. Raymond

Gilles Vollant

and with the following additions to the disclaimer:

There is no warranty against interference with your enjoyment of the library or against infringement. There is no warranty that our efforts or the library will fulfill any of your particular purposes or needs. This library is provided with all faults, and the entire risk of satisfactory quality, performance, accuracy, and effort is with the user.

libpng versions 0.97, January 1998, through 1.0.6, March 20, 2000, are Copyright © 1998, 1999 Glenn Randers-Pehrson, and are distributed according to the same disclaimer and license as libpng-0.96, with the following individuals added to the list of Contributing Authors:

Tom Lane

Glenn Randers-Pehrson

Willem van Schaik

libpng versions 0.89, June 1996, through 0.96, May 1997, are Copyright © 1996, 1997

Andreas Dilger

Distributed according to the same disclaimer and license as libpng-0.88, with the following individuals added to the list of Contributing Authors:

John Bowler

Kevin Bracey

Sam Bushell

Magnus Holmgren

Greg Roelofs

Tom Tanner

libpng versions 0.5, May 1995, through 0.88, January 1996, are Copyright © 1995, 1996 Guy Eric Schalnat, Group 42, Inc.

For the purposes of this copyright and license, "Contributing Authors" is defined as the following set of individuals:

Andreas Dilger

Dave Martindale

Guy Eric Schalnat

Paul Schmidt

Tim Wegner

The PNG Reference Library is supplied "AS IS". The Contributing Authors and Group 42, Inc. disclaim all warranties, expressed or implied, including, without limitation, the warranties of merchantability and of fitness for any purpose. The Contributing Authors and Group 42, Inc. assume no liability for direct, indirect, incidental, special, exemplary, or consequential damages, which may result from the use of the PNG Reference Library, even if advised of the possibility of such damage.

Permission is hereby granted to use, copy, modify, and distribute this source code, or portions hereof, for any purpose, without fee, subject to the following restrictions:

1. The origin of this source code must not be misrepresented.

2. Altered versions must be plainly marked as such and must not be misrepresented as being the original source.

3. This Copyright notice may not be removed or altered from any source or altered source distribution.

The Contributing Authors and Group 42, Inc. specifically permit, without fee, and encourage the use of this source code as a component to supporting the PNG file format in commercial products. If you use this source code in a product, acknowledgment is not required but would be appreciated.

A "png_get_copyright" function is available, for convenient use in "about" boxes and the like:

```
printf("%s", png_get_copyright(NULL));
```

Also, the PNG logo (in PNG format, of course) is supplied in the files "pngbar.png" and "pngbar.jpg" (88x31) and "pngnow.png" (98x31).

Libpng is OSI Certified Open Source Software. OSI Certified Open Source is a certification mark of the Open Source Initiative.

Glenn Randers-Pehrson

glennrp@users.sourceforge.net

3-Dec-04

Exhibit E

Portions of this software are copyright © 2005 The FreeType Project (www.freetype.org). All rights reserved.

- This product includes software developed by the OpenSSL project.
- This product includes software that uses the IJG code.
- Reverse engineering, disassembling, decompiling, dismantling, or otherwise attempting to analyze or modify the software included in this product is prohibited.





Visit our website at www.rca.com

Please do not send any products to the Indianapolis address listed in this manual or on the carton. This will only add delays in service for your product.

**Thomson Inc.
10330 North Meridian Street
Indianapolis, IN 46290**

**©2006 Thomson Inc.
Trademark(s) ® Registered
Marca(s) Registrada(s)
Printed in Japan
TOCOM I6669540**


THOMSON

THOMSON 

Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>