



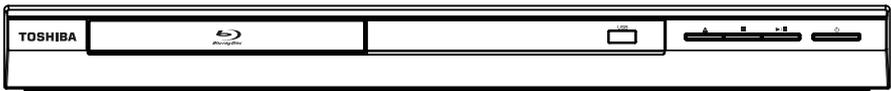
# TOSHIBA

DVD  
VIDEO

BD-LIVE™

Blu-ray Disc

## Blu-ray Disc™ Player



# BDX1200KU

## *Owner's Manual*

 **dts-hd™**  
Master Audio  
Essential

 **DOLBY**  
**TRUEHD**  
DIGITAL PLUS

  
ENERGY STAR

**HDMI**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

**AVCHD™**

  
Java  
POWERED



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# 1 Important

## Safety and important notice

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



The important note is located on the rear or bottom of the cabinet.



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



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



The symbol for CLASS II (Double Insulation)



ENERGY STAR® qualified DVD. Products that earn the ENERGY STAR prevent green house gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

**CAUTION:** PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS GIVEN IN THIS OWNER'S MANUAL AND THOSE MARKED ON THE UNIT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

**CAUTION:** USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

## 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.



### Additional Safety Instructions

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 shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall 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 a heavy object on or step on the apparatus. The object may fall, causing serious personal injury and serious damage to the apparatus.
19. Do not use a cracked, deformed or repaired disc. These discs are easily broken and may cause serious personal injury and apparatus malfunction.
20. If the apparatus should smoke or smell, immediately disconnect the power cord from the wall outlet. Wait until the smoke or smell stops, then ask your dealer for a check and repair. Neglecting to do so may cause fire.
21. While it is thundering, do not touch the connecting cables or the apparatus.
22. Warning: To prevent the spread of fire, keep candles or other open flames away from this product at all times.

### CAUTION:

- This Player employs a Laser System.
- To ensure proper use of this product, please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact an authorized service location.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

- To prevent direct exposure to laser beam, do not try to open the enclosure.
- Visible and invisible laser radiation when open and interlocks defeated.

**DO NOT STARE INTO BEAM.**

**FCC NOTICE:**

**This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rule.**

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Changes or modifications made to this equipment, not expressly approved by Toshiba, or parties authorized by Toshiba, could void the user's authority to operate the equipment.

Be aware that this equipment is still powered when in standby mode. To disconnect this equipment completely from the mains power, pull out the power plug from the wall outlet.

The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.

## Note about Recycling

This unit's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with your local recycling regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulations concerning chemical wastes.



## Copyright notice

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Rovi Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Rovi Corporation. Reverse engineering or disassembly is prohibited.



Be responsible  
Respect copyrights

## Notice for Trademark

**HDMI**<sup>®</sup>

HIGH-DEFINITION MULTIMEDIA INTERFACE

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



**BONUSVIEW**<sup>™</sup>

Blu-ray Disc<sup>™</sup>, Blu-ray<sup>™</sup>, BD-Live<sup>™</sup>, BONUSVIEW<sup>™</sup>, and the logos are trademarks of the Blu-ray Disc Association.

**DOLBY**

**TRUEHD**

**DIGITAL PLUS**

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

**dts-hd**<sup>™</sup>

**Master Audio  
Essential**

Manufactured under license under U.S.

Patent #'s: 5,451,942; 5,956,674;

5,974,380; 5,978,762; 6,226,616;

6,487,535; 7,392,195; 7,272,567;

7,333,929; 7,212,872 & other U.S. and

worldwide patents issued & pending. DTS and the Symbol are registered trademarks, & DTS-HD, DTS-HD Master Audio | Essential and the DTS logos are trademarks of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.

**AVCHD**<sup>™</sup>

'AVCHD' and the 'AVCHD' logo are trademarks of Panasonic Corporation and Sony Corporation.



'DVD Video' is a trademark of DVD Format/Logo Licensing Corporation.



Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

## 2 Your Product

### Regions Codes

Both the Blu-ray Disc™ Player and the discs are coded by region. These regional codes must match in order to play the disc. If the codes do not match, the disc will not play.

The Region Number for this Blu-ray Disc™ Player is described on the rear panel of the Blu-ray Disc™ player.

Region	DVD discs that can be played
U.S.A. and Canada regions	 
U.K., Europe regions and Japan	 
Asia Pacific, Taiwan, Korea	 
Australia, New Zealand, Latin America	 
Russia and India regions	 
China, Calcos Islands, Walls and Futuna Islands	 

Region	Blu-ray™ discs that can be played
North America, Central America, South America, Korea, Japan, Taiwan, Hong Kong and South East Asia.	 
Europe, Greenland, French territories, Middle East, Africa, Australia and New Zealand.	 
India, China, Russia, Central and South Asia.	 

### Feature highlights

High-Definition entertainment

Watch high-definition content disc with HDTV (High Definition Television). Connect it through a high speed HDMI cable (1.3 or category 2). You can enjoy excellent picture quality up to 1080p resolution with the frame rate of 24 frames per second with progressive scan output.

### BD-Live™

Connect this player to the movie studios website via the LAN jack to access a variety of up-to-date content (e.g. refreshed previews and exclusive special features).

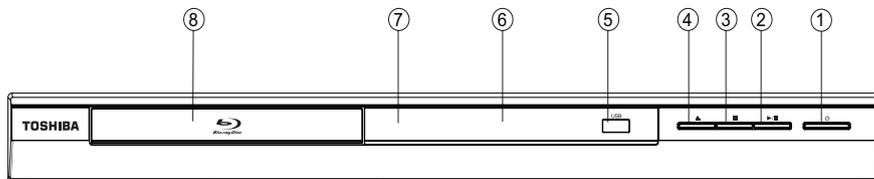
### Blu-ray Disc™ Java

Blu-ray Disc™ Java (BD-J) Application

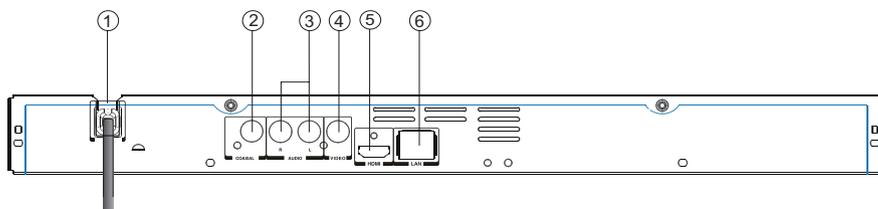
The BD-ROM format supports Java for interactive functions. "BD-J" offers content providers almost unlimited functionality when creating interactive BD-ROM titles.

## Product overview

### Main Unit



NO	Control	Function
①	⏻	Turns the power on or restores the unit to the standby mode.
②	▶/⏸	Playback/Pause.
③	■	Stop play.
④	⏏	Open or close the disc compartment.
⑤	USB jack	Connect a USB flash drive.
⑥	Display panel	Show information about the current status of this unit.
⑦	IR Sensor	Point the remote control at the IR sensor.
⑧	Disc compartment	Loads a disc into the disc drive.



NO	Control	Function
①	AC power cord	Connects to a standard AC outlet.
②	COAXIAL jack	Output digital audio signals when connecting the coaxial digital cable.
③	ANALOG AUDIO OUTPUT jacks	Outputs audio signals to a connected TV or AV amplifier.
④	VIDEO OUTPUT jack	Output video signals to a connected TV.
⑤	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.
⑥	LAN jack	Use this to connect to a network with an always-on broadband connection. It is reserved for future usage of BD-Live™.

# Remote Control

## REMOTE SIGNAL EMITTER

- Point remote control to the sensor on the front panel

## ON / STANDBY

- To switch the Blu-ray Disc™ Player to ON or standby mode

## SETUP

- Enters or exits the system setup menu

## MC(Media Center)

- To open/close Media Center

## PIP AUDIO

- Switch the secondary audio of secondary video(PIP) to on or off

## SEARCH

- To search a title, chapter, track or playing time

## HDMI

- To change resolution of HDMI video output to fit TV. Such as 1080p, 1080i... etc.

## ◀◀/▶▶PREV & NEXT

- Skip to previous/next chapter/ title/track

## ■STOP

- Stop playback

- Instant replay/instant search

## ◀◀/▶▶ F.R & F.F

- Fast reverse/ fast forward

## ▶▶PLAY/PAUSE

- Start/Pause playback

## PROGRAM

- To access program list.

## BOOKMARK

- To bookmark at any point during playback

## ZOOM

- To zoom out/in

## DIGEST

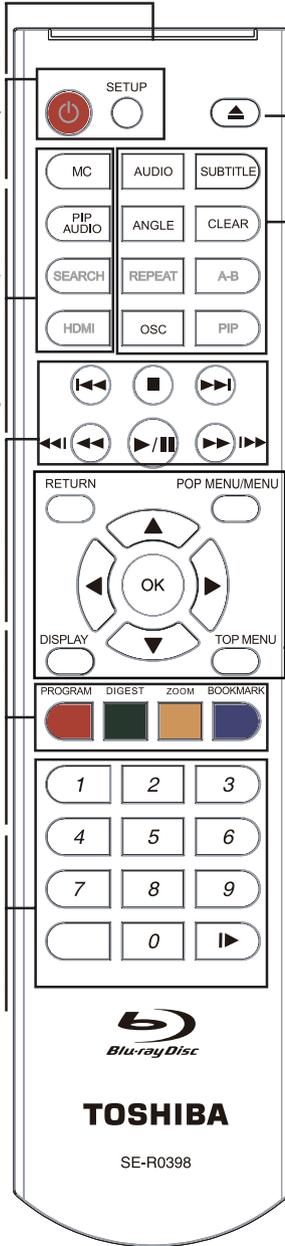
- To access JPEG thumbnail view during playback

## Number Buttons

- Select numbered items in a menu
- Press to enter track/ chapter/ title numbers/password directly

## ▶▶

- Do a slow forward during normal playback
- Advance the picture frame by frame during pause mode



## ▲ OPEN/CLOSE

- Open/ Close the disc tray

## AUDIO

- To select the sound stream; press repeatedly to select different audio streams available in your disc

## SUBTITLE

- To display subtitle; press repeatedly to select different subtitles available in your disc

## ANGLE

- Switch the camera angle during playback

## CLEAR

- To clear an entry or the bookmark and program you set

## REPEAT

- Selects various repeat mode.

## REPEAT A-B

- To repeat from A to B

## PIP (Picture in Picture)

- Switch on or off the secondary video

## OSC

- To access On Screen Control menu

## RETURN

- Return to previous menu

## POP MENU/MENU

- To display a menu included on many Blu-ray Disc™/DVD video discs

## TOP MENU

- To display the disc title during playback

## DISPLAY

- To display a window to locate a title, chapter or track

## OK

- Acknowledge/ Confirm menu selection

## ◀▶▲▼

- Navigation/ Cursor buttons for moving to the left / right / up / down
- Press ◀/▶ during JPEG playback to rotate the current photo track, but the JPEG playback will be paused

### 3 Connections

Make the following connection to use this product.

#### Connecting to a TV

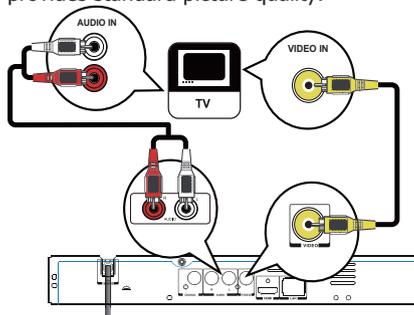
Connect the product to TV to view disc play. Select the best video connection that TV can support:

**Option 1:** Connect to the composite video jack (VIDEO)

**Option 2:** Connect to the HDMI Jack

#### Option 1: Connect to the composite video jack (VIDEO)

You can connect this product to a TV through the composite video cable which provides standard picture quality.



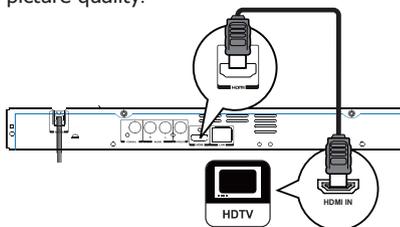
1. Connect a composite cable from the VIDEO OUTPUT jack and analog AUDIO OUTPUT jacks on this product to the video input jack (yellow) and audio input jacks (white/red) on the TV.

*Note:*

-Connect this unit directly to the TV. If the composite Audio / video cables are connected to a VCR, pictures may be distorted due to the copy right protection system.

#### Option 2: Connect to the HDMI Jack

This type of connection provides better picture quality.



1. Connect a HDMI cable from the HDMI output jack on this product to the HDMI input jack on the TV.

*Notes:*

- If the TV has a DVI connector only, connect via an HDMI/DVI adapter (not included). Connect an audio cable for sound output.
- You can optimize the video output by pressing the HDMI button repeatedly to select the best resolution which the TV can support.
- When the player is connected to both VIDEO OUTPUT jack and HDMI OUTPUT jack, resolution is set to 720p/1080i/1080p, there will be no video output through VIDEO OUTPUT jack.

## Optional Connection

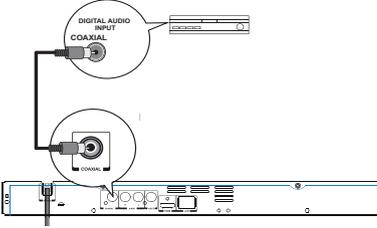
**Option 1:** Connect to the digital amplifier/receiver

**Option 2:** Connect to an analog stereo system

**Option 3:** Connect to network

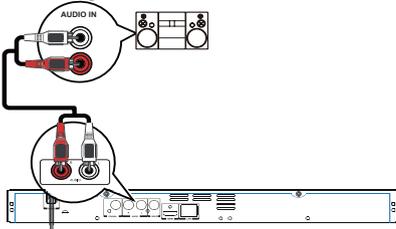
### Option 1: Connect to the digital amplifier/receiver

Route the sound from this player to other device to enhance audio output.



1. Connect a coaxial cable from the COAXIAL jack on this product to the COAXIAL jack on the device.

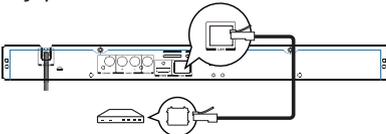
### Option 2: Connect to an analog stereo system



1. Connect the audio cable from the analog AUDIO OUTPUT jacks on this product to the audio input jacks on the system.

### Option 3: Connect to network

Connect this product to the network to enjoy BD-Live™ bonus content.



1. Connect the network cable from the LAN jack on the product to the LAN jack on the network system.

## Connect USB device

A USB device provides an additional memory to software upgrade and enjoy BD-Live™ bonus content.

You can also enjoy playing back MP3/JPEG/MPEG4 files stored in the USB flash device.



1. Connect the USB Flash device to the USB jack on this product.

*Notes:*

- Connect only a USB Flash device to the USB jack on this product.
- To enjoy BD-Live™ bonus content, as your local storage, use a **1 GB or larger USB memory**.
- TOSHIBA does not guarantee 100% compatibility with all USB Flash devices.

## Connect Power

1. Connect the AC power cable to:

- the wall socket.
- The product is ready to be set up for use.

*Notes:*

- Before connecting the AC power cord, ensure you have completed all other connections.
- Risk of product damage! Ensure that the power supply voltage corresponds to the voltage printed on the back of the unit.
- The type plate is located on the back of the unit.

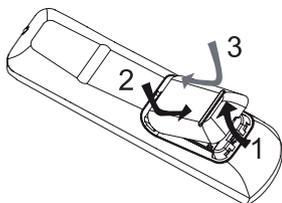
## 4 Preparation

Always follow the instructions in this chapter in sequence.

*Note:*

- Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

### Prepare the remote control



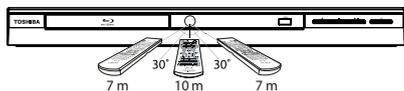
1. Open the battery compartment.
2. Insert two R03 (AAA Size) batteries with correct polarity (+/-) as indicated.
3. Close the battery compartment.

*Notes:*

- If you are not going to use the remote control for a long time, remove the batteries.
- Do not use old and new or different types of batteries in combination.
- Risk of explosion! Keep batteries away from heat, sunshine or fire. Never discard batteries in fire.

#### • The maximum operable ranges from the unit are as follows.

- Line of sight: approx. 10 m
- Either side of the centre: approx. 7 m within 30°
- Above: approx. 7 m within 30°
- Below: approx. 7 m within 30°



## Setting up the player

### Find the correct viewing input

1. Press  $\odot$  to turn on this product.
2. Turn on the TV and switch to the correct video-in input (refer to the TV user manual on how to select the correct input).

### Initial Setting

When you turn on this unit for the first time, you need to follow these steps.

1. A welcome page will be displayed when this product is powered on.
2. Press OK to enter language setting.
3. Select your desired language, resolution and aspect ratio using  $\blacktriangle/\blacktriangledown$ , then press OK.
4. Press SETUP to exit the Setup menu.

### Use the SETUP menu

1. Press SETUP to display the Setup menu when the Blu-ray Disc™ Player is playing or no disc. And press SETUP to exit the Setup menu.

*Tip:*

- When playing high-definition sources, you must press STOP  $\blacksquare$  button to enter SETUP interface.

### Select menu display language

1. Press SETUP, [General Setting] menu is displayed.
2. Select [Language], then press  $\blacktriangleright$ .
3. Select [OSD], then press  $\blacktriangleright$ .
  - The language options may vary for different regions.
4. Press  $\blacktriangle/\blacktriangledown$  to select a language, then press OK.

*Note:*

- If this disc player is connected to a HDMI®-CEC compliant TV, skip this setting. It switches automatically to the same OSD menu language as per your TV setting.

## 5 Playback

### Playback Functions

#### Basic Playback

1. Press **⏻** button on the front panel or the remote control, your Blu-ray Disc™ player will turn on.  
The unit will take around 20 seconds to warm up.
2. Turn on the TV, and then select the input setting on the TV that matches the connection method you used to connect your player.
3. Press OPEN/CLOSE **⬆** to slide out the disc tray.
4. Place a disc on the disc tray with the label facing up and then press OPEN/CLOSE **⬆** to slide back and close the disc tray.  
The disc loading time depends on the types of disc you are loading, and loading a Blu-ray Disc™ will take longer time.
5. If the disc does not start playing automatically, please press **▶/⏮** to start playback.
6. If a Blu-ray Disc™ or DVD menu displays, use cursor buttons to select PLAY. Then, press OK to confirm.
7. To eject the disc, press OPEN/CLOSE **⬆**.

#### Pause playback

1. Press **▶/⏮** to pause playback. The sound will be muted.
2. Press **▶/⏮** to resume the playback.

#### Stop playback

1. Press STOP **■** button once to go to resume mode, the TV screen will show the resume logo.
2. Press STOP **■** twice to stop the playback completely.
3. Press **▶/⏮** to resume playback from the point where playback is stopped or from the beginning of the disc after the playback is completely stopped.  
Not all Blu-ray™ discs support the resume feature.

#### Fast Forward and Fast Reverse

1. Press F.F **▶▶** to fast forward through the disc. The fast forward speed changes based on how many times you pressed the button. The speed will increase through the following

sequence:

2X, 4X, 8X, 16X, 32X

2. Press **▶/⏮** to resume playback.
3. Press F.R **◀◀** to fast reverse through the disc. The fast reverse speed changes based on how many times you pressed the button. The speed will increase through the following sequence:  
2X, 4X, 8X, 16X, 32X
4. Press **▶/⏮** to resume playback.

#### Instant Search and Instant Replay

1. During playback, press and hold **▶▶** button, you can search 30 seconds forward.
2. During playback, press and hold **◀◀** button, you can instant replay the content from 10 seconds before.

#### Previous and Next

During playback, press PREV **◀◀** button, and you can skip back to the previous chapter or track. Each press of this button will allow you to skip a chapter or track till the beginning of the disc.  
Press of NEXT **▶▶** button during playback will allow you to skip the playback to next chapter or track.

#### Slow Forward

1. Press **▶** during normal playback. The slow forward speed is 1/16 in default.
2. To change slow forward speed, press **▶** repeatedly, and the slow forward speed will be changed in the following sequence: 1/16, 1/8, 1/4, 1/2, normal.
3. To exit slow forward mode and return to normal playback, press **▶/⏮**.

#### Step Forward

Use this feature to help you to enjoy the video frame by frame.

1. Press **▶/⏮** during normal playback, then playback will change to pause state.
2. Press **▶** repeatedly to advance the picture frame by frame.
3. Press **▶/⏮** to resume normal playback.

#### HDMI

When there is file or disc being played, it is not allowed to switch resolution through the HDMI button of the Remote Control.

## Advanced Playback

### DISPLAY

Press this button and the screen will display some information about disc, such as: Title number, Chapter number, Track number, Elapsed Time, Mode, Audio, Angle, and Subtitle languages. Press this button again to turn off the information display.

During DVD/CD playback, you may edit the chapter and track.

### REPEAT

Press REPEAT repeatedly to select different repeat modes.

DVD: Repeat Chapter, Repeat Title, and All.  
VCD PBC Off/CD/JPEG/MP3: Repeat Track and All.

### A-B

To play certain section within the video or song, press A-B button to set the start-point. Then press A-B button again to set the end point and complete the setting. The selected section will be played repeatedly.

Press A-B button the third time to cancel this function.

The end point cannot be set until 5 seconds of playback has elapsed from the start point.

### SEARCH

During playback, press SEARCH button to edit Title, Chapter, and Time.

Press ◀/▶ and OK button on the remote control to select Title, Chapter, or Time. Then press the numeric buttons or ▲/▼ and then press OK. The playback will skip to the desired location.

For Time Search, press ▲/▼ to select Title or Chapter time search.

### SUBTITLE

Press this button repeatedly and the screen will display "X/XX XXX" or "Off". The "X" indicates the current number of this language; "XX" indicates the total number of language; "XXX" indicates the language. The number of available languages depends on the disc.

### RETURN

Press this button to return to the previous on-screen menu in setup menu such as External Memory Information, Parental Control, Country Code, etc.

During MP3/JPEG/VIDEO playback, press RETURN once, it will return back to Media Center page.

During VCD disc playback and PBC On is selected, press the button to return to PBC Menu.

### ANGLE

During playback, press this button to change the angle of the picture. The screen will display "Angle X/X." The first "X" indicates the

current number of angle, and the second "X" indicates total number of angle.

Not all Blu-ray™ or DVD has the multi-angle feature. The screen will take around 5 seconds to change.

### TOP MENU

You may press this button at any time, and the Blu-ray Disc™ or DVD video disc playback will pop up the disc menu.

### POP MENU/MENU

During Blu-ray Disc™ playback, press POP MENU/MENU to display the disc title, and the playback will not be stopped even the menu is on the screen.

1. Press the ▲/▼/◀/▶ buttons to select an option, then press OK to confirm.

2. Press POP MENU/MENU to close the menu.

During DVD playback, press POP MENU/MENU to open the disc menu.

During VCD playback, press POP MENU/MENU to switch PBC On/Off.

During displaying USB and Data Disc file content in media center, press POP MENU/MENU to add the Photo/Music/Video files to the playlist.

1. Press ▲/▼/◀/▶ buttons to select an option under the Photo/Music/Video files.

2. In the file browser, press ▶ to select the file(s) to be added to the playlist. "√" will appear beside the selected files.

3. Press POP MENU/MENU button, a pop up menu will appear, then press ▲/▼ and OK button to select "Add to Playlist" to add the files to the Playlist. "Select all" and "Clear all" options are also available. Select "Cancel" to exit the pop up menu.

All the selected files will be added to the "Playlist" folder. You can play or delete the files in the playlist.

Press POP MENU/MENU to delete the selected files in "Playlist"

### SETUP

Press the SETUP button, and the screen will display some information about the player, such as:

- General Setting
- Display Setting
- Audio Setting
- System Information

### PROGRAM

During CD/DVD/VCD playback, you can press this button to edit the sequence of the playlist.

### BOOKMARK

During VCD/DVD disc playback, press the BOOKMARK button to add the bookmark; press and hold for a few seconds to display the list of bookmark which you added before on the screen, then you can press the OK button to select the bookmark or CLEAR button to delete the bookmark.

**AUDIO**

Press AUDIO button on the remote control to select the audio streams that set within the Blu-ray™ or DVD disc.

The screen will display:

AUDIO: X / XX XXX XXXX

"X" - the Current Audio Stream Number

"XX" - The total number of Audio Stream

"XXX" - Audio Language

"XXXX" - Audio Technology

**MC**

Press this button to play media files in the USB.

**ZOOM**

Press ZOOM button repeatedly to Zoom in/out playback in the video.

Zoom mode : Zoom 2x -> Zoom 3x -> Zoom 4x -> Zoom 1/2 -> Zoom 1/3 -> Zoom 1/4.

**DIGEST**

During playback of JPEG disc, press DIGEST to view a page of 12 thumbnail images.

- Use ▲/▼/◀/▶ to select an image.

Press OK to view the selected image in full-screen and subsequent images will be displayed one after another automatically.

- Press PREV ◀◀/NEXT ▶▶ to view the previous or next thumbnail screen.

**PIP AUDIO**

Press PIP AUDIO button to open the secondary audio of secondary video (PIP's sub-window video).

**OSC**

Press OSC to open On Screen Control menu during playback. In this menu, you can make some playback-related control.

The on screen control contains following items:

[Title]: The title in current playback/titles in total. Select your desired title to playback.

[Chapter]: The chapter in current playback/chapters in total. Select your desired chapter to playback.

[Time]: View the elapsed/remaining playback time of title/chapter. Use ▲/▼ to view: the elapsed playback time of title, the remaining playback time of title, the elapsed playback time of chapter, and the remaining playback time of chapter.

[Mode]: Select playback mode among shuffle, random, and normal.

[Audio]: The Blu-ray Disc™/DVD disc's soundtrack language. Use ▲/▼ to view the audio available in the disc and select your desired Audio type.

[Angle]: The angle view of current playback/the angles in total. Please reference Playback > Angle to see more detailed info. Use ▲/▼ to select your desired angle view.

[Subtitle]: The Subtitle in current playback.

Use ▲/▼ to view the subtitles available in the disc and select your desired subtitle type or turn it off.

[Subtitle Style]: When you play the Blu-ray Disc™ or DVD disc and if it has external subtitle, you will see it in OSC menu.

[Bitrate]: Use ▲/▼ to select your desired Bitrate.

[Still Off]: Close the Still feature of DVD disc.

For some DVD discs, a certain video picture will be frozen as a still picture during the process of playback to let the user has a better view of certain picture. To continue playback, select Still Off.

[Ins Search]: Instant search 30 seconds forward.

[Ins Replay]: Replay the content from 10 seconds before.

*Tip:*

*The specified operation for each item will vary with disc types. And some items are available only when the disc is supportable.*

**Blu-ray Disc™ BONUSVIEW™**

Playing Secondary Video (Picture-in-Picture) and Secondary Audio is for Blu-ray Disc™ only. Secondary video can be played from a disc compatible with the Picture-in-Picture (PIP) function. For the playback method, refer to the instructions for the disc.

1. Turn on secondary video by pressing the PIP button.
2. Press the PIP AUDIO button to select the secondary audio, and select an option except Off. The secondary audio is opened, you can hear the disc secondary video sound.
3. In order to hear the secondary audio, the PIP feature on the disc must be turned on.
3. Press the PIP button again to turn off the secondary video.



Primary video

Secondary video with Secondary Audio

This function is not available when the primary video is played in Search, Slow-Motion, or Frame-by-Frame or Fast Forward/ Reverse mode. To listen to the secondary audio, the digital audio output must be set to "Bitstream", "Re-encode" or "PCM". Otherwise, only the primary audio can be heard.

*Notes:*

*- Not all the Blu-ray™ discs can support this function.*

*- High Definition PIP (Second Video) is not supported.*

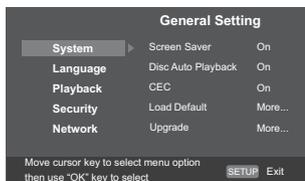
## 6 Customizing

This section describes the various setting option of this Blu-ray Disc™ player.

If the setup option is grayed out, it means the setting cannot be changed at the current state.

### General Setting

1. Press **SETUP** button on the remote control. The Setup Menu appears.



2. Press **▼** to select an option, then press **▶** to access.
3. Press **▲/▼** to select a setup option and press **▶**.
4. Select the setting you wish to change and press **OK** to confirm.
  - Press **◀** to return to the previous menu.

#### [System]

To change the following system option to personalize your Blu-ray Disc™ player.

- **[Screen Saver]**  
Turn On or Off the screen saver mode. It helps to protect the TV screen.  
{ **On** } – Set the screen saver active after approximately 5 minutes with no operation. You can turn off the screen saver by pressing the **SETUP** button.  
- The Blu-ray Disc™ Player will switch to standby mode if there is no operation after the screen saver is engaged for approximately 15 minutes.  
{ **Off** } – Turn off the screen saver mode.
- **[Disc Auto Playback]**  
Turn On or Off the disc automatic playback switching mode.  
{ **On** } – The disc playback automatically after loading.  
{ **Off** } – Turn off disc auto playback mode.
- **[CEC]**  
This player supports REGZA-LINK which uses the HDMI®-CEC (Consumer

Electronics Control) protocol. You can use one single remote control to control all REGZA-LINK-compliant devices that are connected through HDMI connectors.

{ **On** } - Turns on REGZA-LINK features.  
- With CEC on, during TV standby with the Blu-ray Disc™ Player on, pressing **SETUP**, **PLAY/PAUSE** will power on the TV. When you turn the TV off, this unit will automatically turn off.

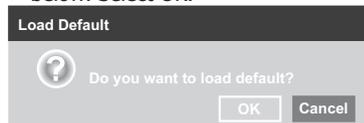
{ **Off** } - Disables REGZA-LINK features.

- **[Load Default]**

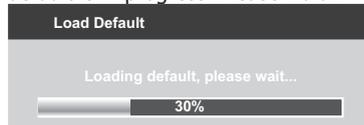
Reset all settings of Blu-ray Disc™ Player to initial default state.

- Follow the instruction on the TV screen to confirm the default setting operation.

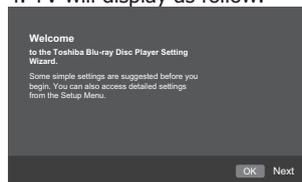
1. Select **Load Default**.
2. A dialog box pops up shown as below. Select **OK**.



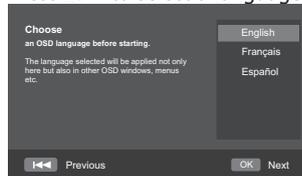
3. It may take awhile when loading default is in progress. Please wait...



4. TV will display as follow:



5. Press **OK**, enter language setting. Press **▲/▼** to select a language option.



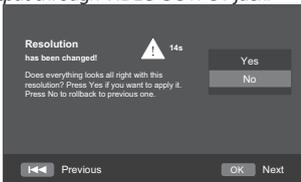
## 6. Press OK, enter Resolution setting.



Press ▲/▼ to select an option. Press OK. Select "Yes" or "No" using ▲/▼.

Note:

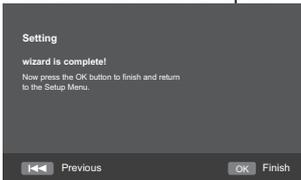
-When the player is connected to both VIDEO OUTPUT jack and HDMI OUTPUT jack, resolution is set to 720p/1080i/1080p, there will be no video output through VIDEO OUTPUT jack.



## 7. Press OK, enter Aspect ratio setting.



Press ▲/▼ to select an option. Press OK.



## 8. Press OK to return to [General Setting] Menu.

### • [Upgrade]

For software upgrades to enhance performance, you could select the following upgrade method and start to upgrade.

#### {Disc}/{USB Storage}

Upgrade the software from the disc or USB Flash device.

1. Insert the disc or connect the USB Flash device which contains the upgrade file package.
2. Follow the instruction on the TV screen to confirm upgrade operation.

- The system will reboot after 5 seconds or OK key is pressed.

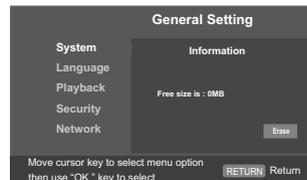
Notes:

- If set [Disc Auto Playback] to [Off], after you insert the disc that contains the upgraded information to upgrade system, you have to start upgrade from this option of SETUP Menu.
- If the upgrade file package did not pass the verification, error prompt is displayed, check the package again (such as the package is not complete)
- Make sure the firmware version is not an old version.
- When you upgrade the system using USB Flash device, you should make a new folder named UPG\_ALL, and copy the upgrade file into this folder.

### • [External Memory]

External Memory would be used in BD-Live™ function. When you plug in the USB flash device which has at least 1GB free space to play BD-Live™ function, the Blu-ray Disc™ system would make a directory named BUDA automatically. Information will display the Free size.

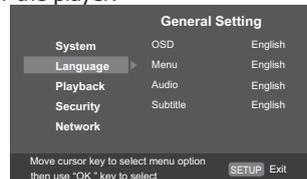
1. Press OK.
2. Follow the instruction on the TV screen to select {Information}.



3. Press OK to select "Erase", the data in the BUDA folder will be cleared.

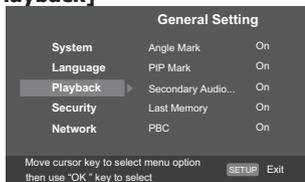
### [Language]

Set up the OSD (On-Screen Display), Menu, Audio and Subtitle default language for the player.



- [OSD]  
Select the default on-screen display language.
- [Menu]  
Select the default menu language.

- **[Audio]**  
Select the default audio language.
- **[Subtitle]**  
Select the default subtitle language.
- **[Playback]**



- **[Angle Mark]**  
Some Blu-ray discs/DVDs contain the scenes recorded with multiple angles, which allow you to enjoy the videos with your desired angles, therefore the angle mark is displayed only when the Blu-ray Disc™/DVD disc is supportable for multi-angle and Angle Mark is set to ON.  
{On} – Display the angle mark.  
{Off} – Hide the angle mark.

- **[PIP Mark]**  
The Picture -In- Picture (PIP) mode display two pictures on the TV screen at the same time, the full screen picture is called Main Window and the small inset window is called Sub Window. The PIP mark is displayed when in PIP mode and PIP Mark is set to ON.

{On} – Display the PIP mark.

{Off} – Hide the PIP mark.

Note:

-High Definition PIP (Second Video) is not supported.

- **[Secondary Audio Mark]**  
{On} – Display Secondary Audio Mark.  
{Off} – Hide the Secondary Audio Mark.

- **[Last Memory]**  
If you open the disc tray or switch this Blu-ray Disc™ player to standby state during normal playback, the Blu-ray Disc™ player can memorize the end playing point, the player will start playback from the memorized point next time.

{On} – Active Last Memory feature.

{Off} – Disable Last Memory feature.

Note:

-Not all the Blu-ray™ discs can support this function.

- **[PBC]**  
VCD2.0 has PBC control (Playback Control) menu, which allow you to interact with the system via menu.

{On} – Display playback control menu, use NUMBER keys to select desired option.

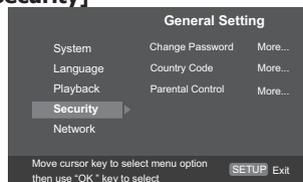
{Off} – Hide playback control menu and start playback from track1 automatically.

- **[Closed Caption]**  
Allow people who are deaf or hearing impaired, to have access to television programming by displaying the audio portion of a television programme as text on the screen.

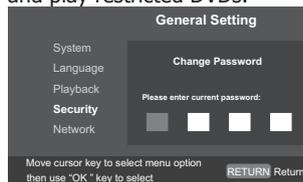
{On} – Display the Closed Caption .

{Off} – Hide the Closed Caption.

## [Security]

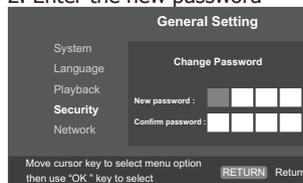


- **[Change password]**  
Follow the instruction on the TV set or change the password for locked discs and play restricted DVDs.



1. Use NUMBER keys to enter four digit old password. The default password is "0000".

2. Enter the new password

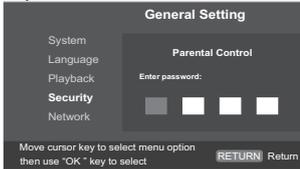


3. Enter the new password again to confirm.

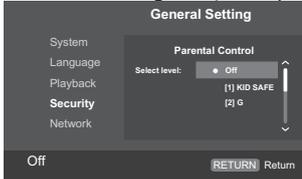
- **[Country Code]**  
This ensures that you will be able to see the scenes intended for your current residential Country/Area.  
Use NUMBER Keys to enter your password, then you can choose your Country/Area.

- **[Parental Control]**  
Restricts access to discs that are unsuitable for children. These discs must be recorded with rating.

1. Press OK.
2. Use NUMBER keys to enter the password.



3. Select a rating level, then press OK.

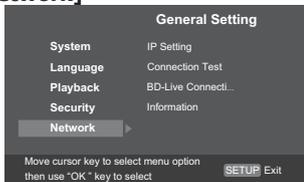


Items	Description
KID SAFE	Safe for kids
G	All children and general guidance
PG	Parental guidance
PG-13	Parental guidance for children under 13
PGR	Parental guidance Recommended
R	Restricted viewing
NC-17	No one 17 and under allowed
ADULT	Adult only

Notes:

- Rated discs above the level you set in [Parental Control] require a password to be entered.
- The ratings are country-dependent. To allow all discs to play, select 'Off'.

## [Network]



To enjoy BD-Live™ bonus contents, set up the network connection.

Note:

- Ensure that the network cable is properly connected and the router is switched on.
1. Connect the Blu-ray Disc™ player to the broadband modem or router.
  2. In the Setup menu, select [Network], then press ►.
  3. Select [IP Setting] in the menu, then press OK to select [Auto]. An IP address is obtained automatically. If no IP address is obtained, select

[Manual] to input IP Address, Subnet Mask, Default Gateway, DNS and press OK to re-connect again to the network. It will try to obtain the IP address again.

4. Press RETURN or press OK to exit.

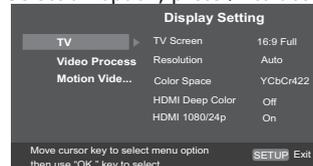
Notes:

- During [Manual] mode, if the number is entered incorrectly, press ▼ to erase the number.
- A contract with the provider is needed to connect to the Internet.
- This player does not support automatic detection of cross-cables. Use the straight (standard) LAN cable.
- Loading BD-Live™ content from the internet may take some time, depending on the file size and the speed of the internet connection.

- **[IP Setting]**
  - {Auto}** – Auto obtain network information.
  - {Manual}** – Manual setup network information.
- **[Connection Test]**
  - Display Network connection status information.
- **[BD-Live Connection]**
  - {Permitted}** – During playback of BD-Live™ disc, the disc may automatically download all information from appointed network.
  - {Partial Permitted}** – During playback of BD-Live™ disc, the disc may automatically download partial of the information from appointed network.
  - {Prohibited}** – Disable downloading information from network.
- **[Information]**
  - Display all Network Information.

## Display Setting

1. Press SETUP, [General Setting] menu is displayed.
2. Press ► to select [Display Setting], then press ▼.
3. Select an option, press ► to access.



4. Press ▲/▼ to select a setup option and press ►.
5. Select the setting you wish to change and press OK to confirm.
  - Press ◀ to return to the previous menu.
  - Press SETUP to exit the menu.

**[TV]**• **[TV Screen]**

Select the screen format according to how you want the picture to appear on the TV.

**{16:9 Full}** – for a disc with the aspect ratio of 4:3, the output video is stretched into 16:9 full screen.

**{16:9 Normal}** – for a disc with the aspect ratio of 4:3, the output video is resized vertically to match what will be seen on the display.

**{4:3 Pan&Scan}** – for standard TV, Display a wide picture on the entire screen and cuts off the redundant portions.

**{4:3 Letterbox}** – for standard TV, Display a wide picture with two black borders on the top and bottom of 4:3 screen.

• **[Resolution]**

Select a video output resolution that is compatible with your TV display capability.

**{Auto}** – Select the most suitable resolution according to the TV .

**{480i}**, **{480p}**, **{720p}**, **{1080i}**, **{1080p}**

– Select a video resolution setting that is best supported by the TV. See TV manual for details.

*Note:*

-When resolution is set to 720p/1080i/1080p:

(1) If only CVBS connected, the resolution of CVBS video output will be set to 480i automatically.

(2) If HDMI and CVBS are both connected, there will be no CVBS video output, instead, a message will be shown as follows:

**Out Of Range:Check Display Resolution**

• **[Color Space]**

Select a predefined Color space of picture.

**{RGB}** – Select RGB Color space.

**{YCbCr}** – Select YCbCr Color space.

**{YCbCr422}** – Select YCbCr422 Color space.

**{Full RGB}** – Select Full RGB Color space.

• **[HDMI Deep Color]**

This feature is available only when the display device is connected by a HDMI cable, and when it supports deep Color feature.

**{30 bits}** – Output 30 bits Color.

**{36 bits}** – Output 36 bits Color.

**{Off}** – Output standard 24 bits Color.

*Note:*

- When the color space is "YCbCr422", even if HDMI Deep Color is set to 30bits/36bits, it is not output with Deep Color.

• **[HDMI 1080/24p]**

**{On}** – Enable 1080/24p video resolution setting.

**{Off}** – Disable 1080/24p video resolution setting.

*Notes about HDMI 1080/24p:*

If you want the 24Hz output, it should fulfill below 3 conditions:

1. TV supports the 24Hz display;

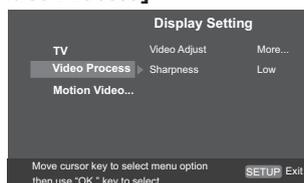
2. Player choose the 24Hz option in the setup menu;

3. Media must be the 24Hz video.

*Notes:*

- This resolution becomes effective only when the playing Blu-ray Disc™ contents are Film source.

- During HDMI 1080/24p playback, there will be no composite output.

**[Video Process]**• **[Video Adjust]**

Select a predefined setting of the video.

1. Press OK .

2. Press ◀▶ to adjust the video

Brightness, Contrast, Hue and Saturation.

**{Brightness}** - press ◀▶ to adjust the brightness of display, goes left means dark and right means bright.

**{Contrast}** - press ◀▶ to adjust the contrast of display, goes left means low contrast and right means high contrast.

**{Hue}** - press ◀▶ to adjust the Hue of display, goes left means low hue and right means high hue.

**{Saturation}** - press ◀▶ to adjust the saturation of display, goes left means low Saturation and right means high saturation.

3. Press RETURN to exit.



• **[Sharpness]**

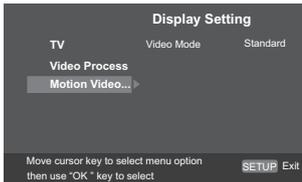
Select the level of sharpness: High, Middle, Low

{**High**} - Select High sharpness level

{**Middle**} - Select Middle sharpness level

{**Low**} - Select Low sharpness level

**[Motion Video Process]**



• **[Video Mode]**

Select the output mode of video, options include: Standard, Vivid, Smooth, these can change the output display.

{**Standard**} - output video signal without any processing and in standard mode.

{**Vivid**} - output video signal in vibrant color mode.

{**Smooth**} - output video signal in smooth mode.

**Audio Setting**

1. Press SETUP, **[General Setting]** menu is displayed.

2. Press ► to select **[Audio Setting]**, then press ▼.

3. Select an option, press ► to access.



4. Press ▲/▼ to select a setup option and press ►.

5. Select the setting you wish to change and press OK to confirm.

- Press ◀ to return to the previous menu.

- Press SETUP to exit the menu.

**[Audio Output]**

• **[Spdif]**

Select the output mode of COAXIAL jack, options include Bitstream, PCM, Re-encode and Off.

{**Bitstream**} – Output digital signal without any processing.

{**PCM**} – Output digital signal with processing, only two channels export.

{**Re-encode**} – Auto select signal type from COAXIAL jack according to the Audio stream on disc.

{**Off**} – No output for S/PDIF.

• **[HDMI]**

Select the output mode of HDMI Out jack, options include Bitstream, PCM, Re-encode and Off.

{**Bitstream**} – Output HDMI digital signal without any processing.

{**PCM**} – Output HDMI digital signal with processing, only two channels export.

{**Re-encode**} – Auto select signal type from HDMI Out jack according to the Audio stream on disc.

{**Off**} – No output for HDMI.

• **[Down\_samp]**

Select the digital audio signal sampling frequency.

{**48K**} – For discs recorded at sampling rate of 48 kHz.

{**96K**} – For discs recorded at sampling rate of 96 kHz.

{**192K**} – For discs recorded at sampling rate of 192 kHz.

• **[DRC]**

Select the Dynamic Range Control mode which makes it available to listen to a movie at a low volume without losing sound clarity.

{**Off**} – Non-dynamic range compress.

{**On**} – Dynamic range compress.

{**Auto**} – Adjust the DRC according to input audio.

The setting of Auto is effective for Dolby TrueHD.

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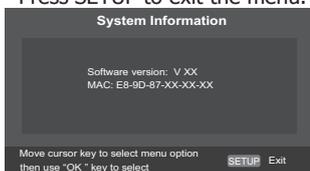
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## System Information

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1. Press SETUP, [**General Setting**] menu is displayed.
2. Press ► to select [**System Information**].
  - The current software version and MAC address will be displayed.
  - Press ◀ to return to the previous menu.
  - Press SETUP to exit the menu.



## 7 Specification

### Playable media

This product can play:

- Blu-ray Disc™-Video, BD-R/RE2.0, BDAV
- DVD, DVD-Video, DVD+R/+RW, DVD-R/-RW, DVD+R/-R DL (Dual Layer)
- Video CD/SVCD
- Audio CD, CD-R/CD-RW
- AVCHD, AVCREC disc
- USB flash device

### Video

Signal system: NTSC

Composite video output: 1Vp-p (75 ohm).

HDMI Output: 480i, 480p, 720p, 1080i, 1080p, 1080/24p.

### Audio

- 2 Channel analog output
  - Audio L&R : 2 Vrms (< 2.2 kohm)
- Signal-to-noise Ratio  $\geq 95$  dB
- THD+N 1kHz  $\leq -85$  dB
- Dynamic Range 1kHz  $\geq 85$  dB
- Crosstalk 1kHz  $\leq -95$ dB
- Digital output (Coaxial): 0.5 Vp-p (75 ohm)
- HDMI output

### LAN

- LAN terminal 10BASE-T/100BASE-TX

### USB

- USB 1.1 / USB 2.0 Full-speed / USB 2.0 High-speed
- Supporting range: flash disk, card reader, 4 ports USB HUB, USB Mass Storage Class Device.
- Supported file system: FAT32
- Maximum size supported: 32GB
- Does not support unpowered HDD

### MP3 tracks

- Supported file extension: '. mp3'
- Supported audio codec : MP3
- ISO format
- Supported corresponding bitrate: 8kbps-320 kbps
- Supported sampling frequencies: 32kHz, 44.1kHz, 48kHz

### JPEG

- Supported file extension: '.jpg' or '.jpeg'
- JPEG/ISO format
- Does not support Picture CD

### Main Unit

- Power supply rating: 120V, 60Hz
- Power consumption: 18W
- Power consumption in standby mode: <1W
- Dimensions (w x h x d): 430 x 42.5 x 200 (mm)
- Net Weight: 1.52 kg
- Operating temperature: 5°C to 35°C
- Operating humidity: Less than 80 % (no condensation)

### Accessories supplied

- Remote control
- Two R03 (AAA size) batteries
- Audio/Video cable
- Owner's Manual
- QSG

## 8 Troubleshooting

If you experience any of the following difficulties while using this unit, check the list below before consulting your nearest TOSHIBA dealer.

Problem	Tip
No reaction to the remote control.	Connect the product to the power outlet.
	Point the remote control at the product.
	Insert the batteries correctly.
	Insert new batteries in the remote control.
No video signal on the display device.	Turn on the TV.
	Set the TV to the correct external input.
	Select the correct video resolution.
	Set TV System of TV correctly.
No video output through VIDEO OUTPUT jack.	Set Resolution of HDMI to 480i or 480p.
Incorrect or no audio / video signal on the amplifier/display device via HDMI cable.	If the unit is connected to the unauthorized display device with an HDMI cable, the audio/video signal may not be output.
	Ensure the amplifier/display devices setting match the Blu-ray Disc™ player.
No high-definition video signal on the TV.	Does the disc contain high-definition video? High-definition video is not available when the disc does not contain it.
	Does the TV support high-definition video? High-definition video is not available when the TV does not support it.
No audio signal from the loudspeakers of the TV.	Assign the audio input of the TV to the corresponding video input.
No audio signal from the loudspeakers of the audio system.	Turn on the audio system.
	Set the audio system to the correct external input.
	Increase the volume level of the audio system.

Cannot play back a disc.	Make sure that the Blu-ray Disc™ player supports the disc.
	Make sure that the Blu-ray Disc™ player supports the region code of the DVD or Blu-ray Disc™.
	For DVD+RW/+R or DVD-RW/-R, make sure that the disc is finalized.
	Clean the disc.
Cannot play back JPEG files from a disc.	Make sure that the disc was recorded in the UDF, ISO9660 or JOLIET format.
Cannot play MP3 files from a disc.	Make sure that the disc was recorded in the UDF, ISO9660 or JOLIET format.
	Make sure that the bit rate of the MP3 files is between 8 and 320 kbps.
	Make sure that the sample rate of the MP3 files is 32kHz, 44.1kHz or 48kHz.
Cannot find a JPEG file.	Make sure that the selected group (folder) does not contain more than 9,999 files for DVD and 999 files for CD.
	Make sure that the file extension is .jpg, .JPG, .jpeg or .JPEG.
Cannot find a MP3 file.	Make sure that the selected folder does not contain more than 9,999 files for DVD and 999 files for CD.
	Make sure that the file extension is .mp3 or .MP3.
Cannot upgrade SW.	When you upgrade the system with USB Flash device, you should make a new folder named UPG_ALL, and copy the upgrade file into this folder.
The USB Flash Device cannot be played.	Use USB Flash Device corresponding to the Mass Storage Class Driver.
Sometimes the options of setup menu cannot be selected.	When playing a DVD disc or Blu-ray Disc™, press STOP button once, the player will go into stop resume mode, meanwhile you cannot change some settings in setup menu such as language subitem menu, audio, subtitle etc. If you want to change that, press STOP button twice, the player will go into full stop mode, then you can do it.

## 9 Glossary

### Aspect ratio

Aspect ratio refers to the length to height ratio of TV screens. The ratio of a standard TV is 4:3, while the ratio of a high definition or wide TV is 16:9. The letterbox allows you to enjoy a picture with a wider perspective on a standard 4:3 screen.

### Blu-ray Disc™

Blu-ray Disc™ is a next generation optical video disc capable of storing five times more data than a conventional DVD. The large capacity makes it possible to benefit from the features such as high-definition videos, multichannel surround sound, interactive menus and so on.

### BONUSVIEW™

This is a Blu-ray Disc™-Video (Final Standard Profile or Profile 1.1) that supports interactive content encoded on the disc, such as picture-in-picture. This means you can play the primary video and secondary video simultaneously.

### Digital Audio

Digital Audio is a sound signal that has been converted into numerical values. Digital sound can be transmitted through multiple channels. Analog sound can only be transmitted through two channels.

### Dolby® Digital

The system to compress digital sound developed by Dolby Laboratories. It offers you sound of stereo (2ch) or multichannel audio.

### Dolby® Digital Plus

Dolby Digital Plus is the next generation digital audio compression technology developed as an extension to Dolby Digital. Blu-ray Disc™ supports 7.1 multi-channel surround sound output.

### Dolby® TrueHD

Dolby TrueHD is a lossless coding technology developed for next generation optical discs. Blu-ray Disc™ supports 7.1 multi-channel surround sound output.

### DTS®

DTS is a multi-channel surround sound system. By connecting to DTS decoder, you can enjoy movie dynamic and realistic sound like movie theater. DTS surround sound technologies were developed by DTS, Inc.

### DTS-HD®

DTS-HD is a lossless coding technology developed as an extension of the original DTS Coherent Acoustics format. Blu-ray Disc™ supports 7.1 multi-channel surround sound output.

### DTS-HD Master Audio™

A disc encoded with DTS-HD Master Audio delivers ALL of the information from the original master recording — bit-for-bit, it's identical to what the sound engineers laid down. Audio doesn't get any better than this.

### HDCP

High-bandwidth Digital Content Protection. This is a specification that provides a secure transmission of digital contents between different devices (to prevent unauthorized copyright.)

### HDMI®

High-Definition Multimedia Interface (HDMI) is a high-speed digital interface that can transmit uncompressed high definition video and digital multichannel audio. It delivers high quality picture and sound quality. HDMI is fully backward compatible with DVI. As required by the HDMI standard, connecting to HDMI or DVI products without HDCP (High bandwidth Digital Content Protection) will result in no Video or Audio output.

### JPEG

A very common digital still picture format. A still-picture data compression system proposed by the Joint Photographic Expert Group, which features small decrease in image quality in spite of its high compression ratio. Files are recognized by their file extension '.jpg' or '.jpeg.'

### LAN (Local Area Network)

A group of linked devices in a company, school or home. Indicates the boundaries of a particular network.

### Local storage

This storage area is used as destination for storing additional contents from BD-Live™ enabled Blu-ray Disc™-Video.

### MP3

A file format with a sound data compression system. MP3 is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. With the MP3 format, one CD-R or CD-RW can contain about 10 times more data than a regular CD.

### PBC

Playback Control. A system where you navigate through a Video CD/Super VCD with on-screen menus that are recorded onto the disc. You can enjoy interactive playback and search.

### PCM

Pulse Code Modulation. A digital audio encoding system.

### Region code

A system that allows discs to be played only in the region designated. This unit only plays discs that have compatible region codes. You can find the region code of your unit on the product label. Some discs are compatible with more than one region (or ALL regions).

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/\* zlib.h -- interface of the 'zlib' general purpose compression library  
version 1.2.3, July 18th, 2005

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The Unix configuration script "configure" was produced with GNU Autoconf.

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The same holds for its supporting scripts (config.guess, config.sub, ltconfig, ltmain.sh). Another support script, install-sh, is copyright by M.I.T. but is also freely distributable.

It appears that the arithmetic coding option of the JPEG spec is covered by patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic coding cannot legally be used without obtaining one or more licenses. For this reason, support for arithmetic coding has been removed from the free JPEG software.

(Since arithmetic coding provides only a marginal gain over the unpatented Huffman mode, it is unlikely that very many implementations will support it.)

So far as we are aware, there are no patent restrictions on the remaining code.

The IJG distribution formerly included code to read and write GIF files.

To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce uncompressed GIFs. This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

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## CharisSIL OFL

SIL OPEN FONT LICENSE Version 1.1 - 26 February 2007

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