



The illustration shows DVD for the U.S.A. and Canada.

## Operating Instructions

### DVD/CD PLAYER

Model No. **DVD-S54**

#### *Dear customer*

Thank you for purchasing this product. Before connecting, operating or adjusting this product, please read the instructions completely. Please keep this manual for future reference.

If you have any questions, contact 1-800-211-PANA (7262) in the U.S.A. or 1-800-561-5505 in Canada.

**For the U.S.A.:** The warranty can be found on page 26.

**For Canada:** The warranty can be found on page 27.

**La referencia rápida en español se puede encontrar en la página 28 a 29.**

#### Region number

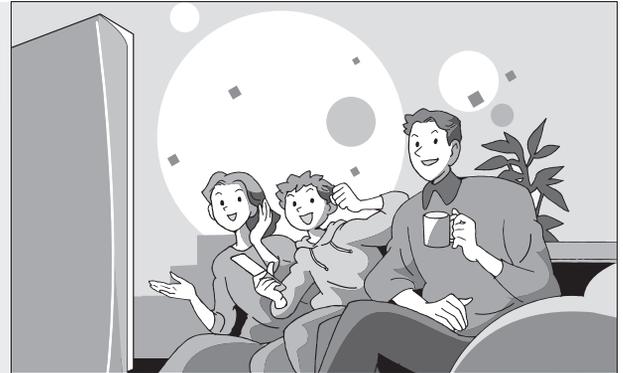
The player plays DVD-Video marked with labels containing the region number "1" or "ALL".

Example:



As an ENERGY STAR® Partner<sup>1</sup>, Panasonic has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

<sup>1</sup>For Canada only: The word "Participant" is used in place of the word "Partner".



## MULTI-FORMAT PLAYBACK

*See page 5 for details*

Unless otherwise indicated, illustrations in these operating instructions are of DVD for the U.S.A. and Canada.



P PC PX

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## Accessories



Please check and identify the supplied accessories.  
Use numbers when asking for replacement parts.  
(Product numbers are correct as of January 2008. These may be subject to change.)

- 1 Remote control (EUR7631290)
- 1 AC power supply cord **For the U.S.A. and Canada** (K2CB2CB00020)
- For others** (K2CQ2CA00006)
- 1 Audio/video cable (K2KA6BA00004)
- 2 Remote control batteries
- For areas except the U.S.A. and Canada**
- 1 Power plug adaptor (K2DA42E00001)

In the U.S.A.: To order accessories, refer to “Accessory Purchases” on page 26.  
In Canada : To order accessories, call the dealer from whom you have made your purchase.

#### Note

- The included AC power supply cord is for use with this unit only. Do not use it with other equipment.
- Do not use an AC power supply cord from other equipment.

**The included Canadian French language sheet corresponds to this unit's English displays.**

#### User memo:

DATE OF PURCHASE _____
DEALER NAME _____
DEALER ADDRESS _____
TELEPHONE NUMBER _____

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER _____ DVD-S54
SERIAL NUMBER _____

#### -If you see this symbol-



This symbol is only valid in the European Union.  
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

### 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.

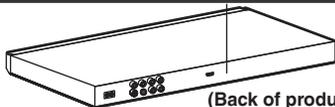
### WARNING:

TO REDUCE THE RISK OF FIRE,  
ELECTRIC SHOCK OR PRODUCT  
DAMAGE,

- DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
- USE ONLY THE RECOMMENDED ACCESSORIES.
- DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The socket outlet shall be installed near the equipment and easily accessible. The mains plug of the power supply cord shall remain readily operable. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from AC receptacle.

Except for U.S.A. and Canada



(Back of product)

THE FOLLOWING APPLIES ONLY IN THE U.S.A.

### FCC Note:

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

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

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

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

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

### Responsible Party:

Panasonic Corporation of North America  
One Panasonic Way  
Secaucus, NJ 07094

### Support Contact:

Panasonic Consumer Electronics Company  
Telephone No.: 1-800-211-7262

**CAUTION** - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.  
DO NOT STARE INTO BEAM. FD421 CFR/Class IIa

**CAUTION** - CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.  
DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 A2/Class 1M

**WARNING** - KLASS 1M SYNLIG OG USYNLIG LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD.  
BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT

**FORSIKRIG** - SYNLIG OG USYNLIG LASERSTRÅLING KLASSE 1M NÅR LÅGET ER ÅBENT.  
UNDGÅ AT SE DIREKT PÅ MED OPTISKE INSTRUMENTER

**VARO** - AVATTAFESSA OLET ALETTINNA LUOVAN JA NÄRÄYTYÄ JÄ NÄKYMÄTÖNTÄ LASERKÄSITELÄÄ. ÄLÄ KATSO OPTISELLÄ LAITTEELLA SUORAAN SÄTEESEEN.

**WORSICHT** - SICHTBARE UND UNSICHTBARE LASERSTRALHUNG KLASSE 1M. WENN ABBEUGUNG GEFÖHRT, NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.

**ATTENTION** - RAYONNEMENT LASER VISIBLE ET INVISIBLE. CLASSE 1M. EN CAS D'OUVERTURE.  
NE PAS REGARDER DIRECTEMENT A L'ŒIL DES INSTRUMENTS D'OPTIQUE.

**注意** - 二名類の可視及び不可視レーザー光が放射します。  
これらを見る時、望遠鏡などを用いてはなりません。

**注意** - 行灯時有可能及不可見レーザー光照射。  
望遠鏡を使用。

RQLCA0581

(Inside of product)

THE FOLLOWING APPLIES ONLY IN THE U.S.A. AND CANADA



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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



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

### CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

### CAUTION!

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- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

# IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 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.



## Product service

1. **Damage requiring service**—The unit should be serviced by qualified service personnel if:
  - (a) The AC power supply cord or AC adaptor has been damaged; or
  - (b) Objects or liquids have gotten into the unit; or
  - (c) The unit has been exposed to rain; or
  - (d) The unit does not operate normally or exhibits a marked change in performance; or
  - (e) The unit has been dropped or the cabinet damaged.
2. **Servicing**—Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
3. **Replacement parts**—When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
4. **Safety check**—After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

### Product information

For product information or assistance with product operation:

In the U.S.A., refer to the “Customer Services Directory” on page 26.

In Canada, contact the Panasonic Canada Inc. Customer Care Centre at 1-800-561-5505, or visit the website ([www.panasonic.ca](http://www.panasonic.ca)), or an authorized Servicentre closest to you.

# Discs that can be played

## Commercial discs

Disc Logo	Indicated in these instructions by	Remarks
	<b>DVD-V</b>	High quality movie and music discs
	<b>VCD</b>	Including SVCD (Conforming to IEC62107)
	<b>CD</b>	Music discs

## Discs that cannot be played

Blu-ray, HD DVD, DVD-Audio, Version 1.0 of DVD-RW, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, PAL discs and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

## Playing DVDs and Video CDs

The producer of these discs can control how they are played so you may not always be able to control play as described in these operating instructions (for example if the play time is not displayed or if a Video CD has menus).

Read the disc's instructions carefully.

## ■ Handling precautions

- Do not attach labels or stickers to discs (This may cause disc warping, rendering it unusable).
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not use the following discs:
  - Discs with exposed adhesive from removed stickers or labels (rented discs etc.).
  - Discs that are badly warped or cracked.
  - Irregularly shaped discs, such as heart shapes.

## Recorded discs (○: Available, –: Not available)

Disc Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.					Finalizing*6
	DVD-V *2	DVD-VR *4	WMA	MP3	JPEG	MPEG4	DivX *5	
	–	○	–	○	○	○	○	Not necessary
	○	○	–	○	○	○	○	Necessary
	○	–	–	–	–	–	–	Necessary
<b>+R/+RW</b>	(○)*3	–	–	–	–	–	–	Necessary
<b>+R DL</b>	(○)*3	–	–	–	–	–	–	Necessary
<b>CD-R/RW*1</b>	–	–	○	○	○	○	○	Necessary*7

- It may not be possible to play the above discs in all cases due to the type of discs, the condition of the recording, the recording method and how the files were created (➡ page 6, Tips for making data discs).

\*1 This unit can also play CD-R/RW recorded with CD-DA or Video CD format.

\*2 Discs recorded on DVD video recorders or DVD video cameras using DVD-Video Format.

\*3 Recorded using a format different from DVD-Video Format, therefore some functions cannot be used.

\*4 Discs recorded on DVD video recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).

\*5 Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files. Certified to the DivX Home Theater Profile. GMC (Global Motion Compensation) is not supported.

\*6 A process that allows play on compatible equipment. To play a disc that is displayed as "Necessary" on this unit, the disc must first be finalized on the device it was recorded on.

\*7 Closing the session will also work.

## ■ Tips for making data discs

Format	Disc	Extension	Reference
<b>WMA</b>	CD-R/RW	“.WMA” “.wma”	<ul style="list-style-type: none"> <li>You cannot play WMA files that are copy protected.</li> <li>This unit is not compatible with Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).</li> </ul>
<b>MP3</b>	DVD-RAM DVD-R/RW CD-R/RW	“.MP3” “.mp3”	<ul style="list-style-type: none"> <li>Sampling frequency: <b>DVD-RAM, DVD-R/RW:</b> 11.02, 12, 22.05, 24, 44.1, and 48 kHz <b>CD-R/RW:</b> 8, 11.02, 12, 16, 22.05, 24, 32, 44.1, and 48 kHz</li> <li>This unit is not compatible with ID3 tags.</li> </ul>
<b>JPEG</b>	DVD-RAM DVD-R/RW CD-R/RW	“.JPG” “.jpg” “.JPEG” “.jpeg”	<ul style="list-style-type: none"> <li>JPEG files taken on a digital camera that conforms to DCF Standard Version 1.0 are displayed. – Files that have been altered, edited or saved with computer picture editing software may not be displayed.</li> <li>This unit cannot display moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (e.g. TIFF) or play pictures with attached audio.</li> </ul>
<b>MPEG4</b>	DVD-RAM DVD-R/RW CD-R/RW	“.ASF” “.asf”	<ul style="list-style-type: none"> <li>You can play MPEG4 data [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system] recorded with the Panasonic SD multi cameras or DVD video recorders with this unit.</li> <li>The recording date may differ from that of the actual date.</li> </ul>
<b>DivX</b>	DVD-RAM DVD-R/RW CD-R/RW	“.DIVX” “.divx” “.AVI” “.avi”	<ul style="list-style-type: none"> <li>Plays all versions of DivX video (including DivX® 6) [DivX video system/MP3, Dolby Digital or MPEG audio system] with standard playback of DivX® media files. Functions added with DivX Ultra are not supported.</li> <li>GMC (Global Motion Compensation) is not supported.</li> <li>DivX files greater than 2GB or have no index may not play properly on this unit.</li> <li>This unit supports all resolutions up to maximum of 720 x 480.</li> <li>You can select up to 8 types of audio and subtitles on this unit.</li> </ul>

## Naming folders and files

(Files are treated as content and folders are treated as groups on this unit.)

At the time of recording, prefix folder and file names. This should be done with numbers that have an equal number of digits, and should be done in the order you want to play them (this may not work at times).

### DVD-RAM

- Discs must conform to UDF 2.0.

### CD-R/RW

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit is compatible with multi-session but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.

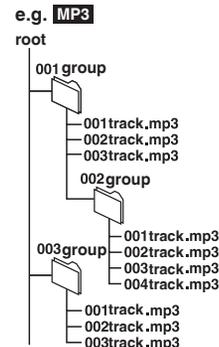
### DVD-RW

- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This unit is not compatible with multi-session. The default session only is played.

- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

## Note about using a DualDisc

The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so play may not be possible.



## Maintenance

### ■ Clean this unit with a soft, dry cloth

- Never use alcohol, paint thinner or benzene to clean this unit.
- Before using a chemically treated cloth, read the instructions that came with the cloth carefully.
- Cleaning of the lens is generally unnecessary although this depends on the operating environment.
- Do not use commercially available lens cleaners as they may cause a malfunction.

### ■ Clean discs

Wipe with a damp cloth and then wipe dry.



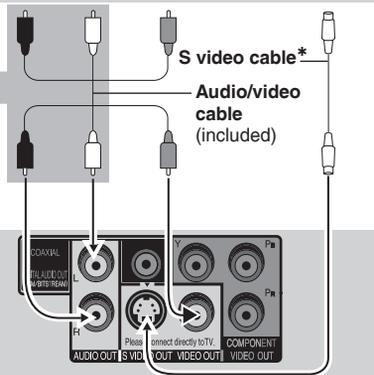
# STEP 1 Connection

## ■ Connection to a television

- Do not place the unit on amplifiers or equipment that may become hot. The heat can damage the unit.
- **Do not connect through the video cassette recorder.** Due to copy guard protection, the picture may not display properly.
- Turn off all equipment before connection and read the appropriate operating instructions.
- Connect the terminals of the same color.

### Television

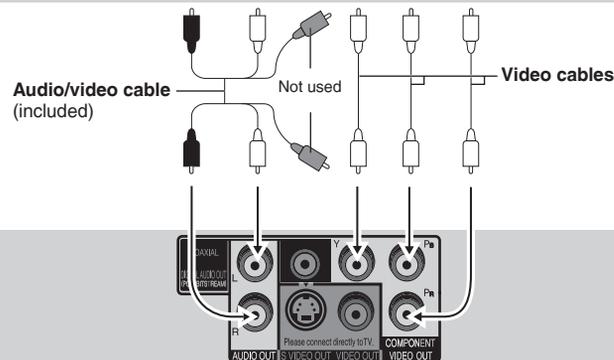
#### With VIDEO IN or S VIDEO IN



\*When using this connection, the audio cable (red and white plugs) should also be connected.

You can connect the audio cable to the 2-channel audio input terminals of an analog amplifier or component receiver to enjoy stereo sound.

#### With COMPONENT VIDEO IN



Select "DARKER" from the "BLACK LEVEL" (⇒ page 18, "VIDEO" menu).

#### To enjoy progressive video

- Connect to a progressive output compatible television.
- Set "VIDEO PRIORITY" to "OFF" (⇒ page 19, "HDMI" menu).
- Set "VIDEO OUT (I/P)" to "PROGRESSIVE", then follow the instructions on the menu screen (⇒ page 19, "VIDEO" menu).

All Panasonic televisions with 480p input connectors are compatible. Consult the manufacturer if you have another brand of television.

## STEP 1 Connection

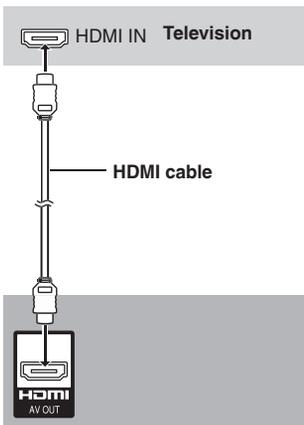
### ■ Enjoying higher quality audio and video (HDMI connection) (⇨ Page 20, Glossary)

By connecting to an HDMI compatible high-definition television, video recordings can be converted to, and output as, high-definition video (1080p,1080i). You can also enjoy surround sound by connecting to an HDMI compatible amplifier with multi-channel output terminals.

#### With HDMI compatible television

To enjoy digital high-definition video and high quality audio with a single cable.

- You can enjoy surround sound by connecting an amplifier with COAXIAL terminal (⇨ page 9).

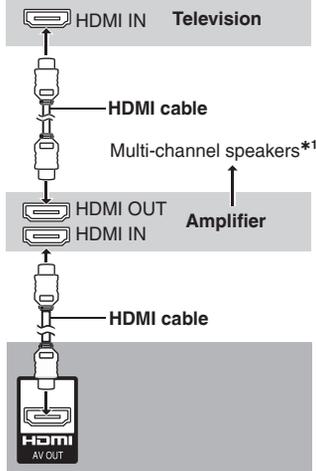


Back of the unit

- Set "VIDEO PRIORITY" to "ON" and "AUDIO OUT" to "ON" (⇨ page 19, "HDMI" menu).

#### With HDMI compatible television and amplifier

To enjoy digital surround sound in addition to digital high-definition video.

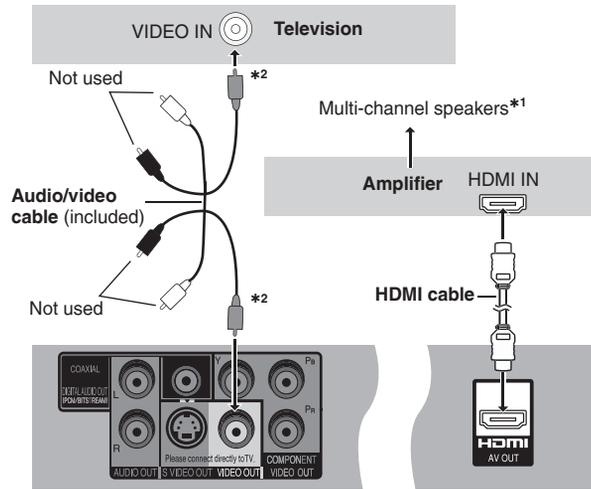


Back of the unit

- Set "VIDEO PRIORITY" to "ON" and "AUDIO OUT" to "ON" (⇨ page 19, "HDMI" menu).

#### With HDMI compatible amplifier

You can still enjoy surround sound when your television is not HDMI compatible by connecting an HDMI compatible amplifier.



Back of the unit

- Set "AUDIO OUT" to "ON". When you connect to a television through the COMPONENT VIDEO terminal only, set "VIDEO PRIORITY" to "OFF", too (⇨ page 19, "HDMI" menu).

\*1 DVD-V Audio will be output in 2 channels when output as PCM. Change "DOLBY DIGITAL" and "DTS" (⇨ page 19, "AUDIO" menu).

\*2 You can also use the S VIDEO and COMPONENT VIDEO terminals.

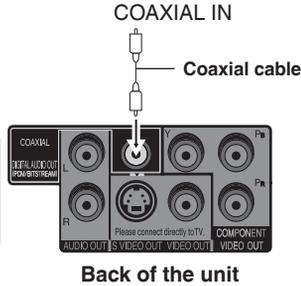
- To enjoy high-definition video, connect to an HDMI compatible high-definition television and set "VIDEO FORMAT" (⇨ page 17, On-Screen Menu 4).
- For stable operation and preventing deterioration of video quality, please purchase an HDMI cable 5.0 m (16 2/5 feet) or less in length with the HDMI logo.
- It is compatible with the VIERA Link™ "HDAVI Control™" (⇨ pages 24 to 25).

## ■ Enjoying surround sound

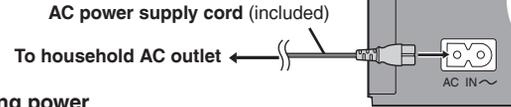
### Amplifier with a built-in decoder or a decoder-amplifier combination

- You cannot use DTS Digital Surround decoders incompatible with DVD.

Set "AUDIO OUT" to "OFF"  
(↷ page 19, "HDMI" menu), and change "PCM OUTPUT", "DOLBY DIGITAL" and "DTS" (↷ page 19, "AUDIO" menu).



## ■ Connect the AC power supply cord last

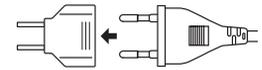


### Conserving power

This unit consumes a small amount of power, even when it is turned off (1 W). To save power when the unit is not to be used for a long time, unplug it from the household AC outlet.

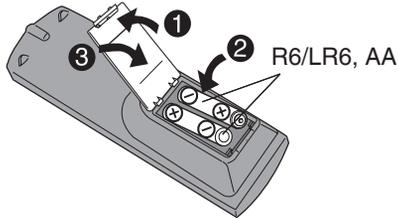
### For areas except the U.S.A. and Canada

If the power plug does not fit your AC outlet, use the power plug adaptor (included). If it still doesn't fit, contact an electrical parts distributor for assistance.



## STEP 2 The remote control

### ■ Batteries



- Insert so the poles (+ and -) match those in the remote control.
- Do not use rechargeable type batteries.
- Do not heat or expose to flame.
- Do not leave the batteries in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

#### Do not:

- mix old and new batteries.
- use different types at the same time.
- take apart or short circuit.

- attempt to recharge alkaline or manganese batteries.
- use batteries if the covering has been peeled off.

Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire. Remove batteries if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

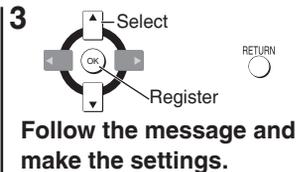
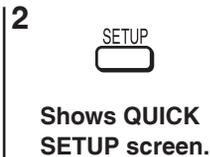
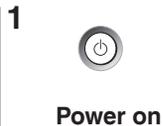
### ■ Use

Aim at the remote control sensor (↷ page 10), avoiding obstacles, at a maximum range of 7 m (23 feet) directly in front of the unit.

## STEP 3 QUICK SETUP



Turn on the television and select the appropriate video input on the television.



To change these settings later, select "QUICK SETUP" (↷ page 19, "OTHERS" menu).

## Basic play

### 1 Power ON.

POWER  $\phi$ /I

Remote control sensor

### 2 Open the disc tray.

OPEN/CLOSE

### 3 Load the disc.

- Load double-sided discs so the label for the side you want to play is facing up.



### 4 Start play.



### Stop



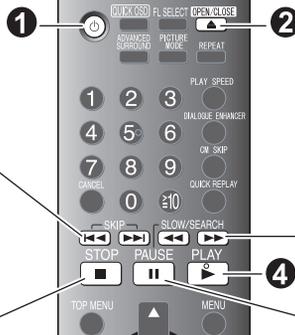
### Skip

- Press [◀◀▶▶] to skip titles, chapters, tracks, etc.
- **DVD-VR** Can also skip to the markers.

### Stop

The position is memorized when "RESUME STOP" is displayed on your television screen.

- Press [▶] (PLAY) to resume. (**Resume play**)
- Press [■] to clear the position.



### Search (during play)

### Slow-motion (during pause)

- Up to 5 steps
- Press [▶] (PLAY) to restart play.
- **VCD** Slow-motion: Forward direction only.
- **MPEG4 DivX** Slow-motion: Does not work.

### Pause

- Press [▶] (PLAY) to restart play.

### Standby/on switch ( $\phi$ /I)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

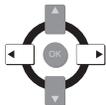
### Note

- **DISCS CONTINUE TO ROTATE WHILE MENUS ARE DISPLAYED.** Press [■] when you finish to preserve the unit's motor and your television screen.
- To play **MP3** or **JPEG** contents on DVD-RAM, set "DVD-VR/DATA" to "DATA" (↪ page 19, "OTHERS" menu).
- Total title number may not be displayed properly on +R/+RW.

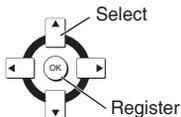
If you are experiencing problems, refer to "Troubleshooting guide" (↪ pages 21 to 23).

**Frame-by-frame**

(during pause)

**DVD-VR** **DVD-V****VCD****DVD-VR** **VCD** forward direction only**Return to previous screen**

RETURN

**On-screen item select****Disc menu**

TOP MENU



DIRECT NAVIGATOR

**DVD-V**

Shows a disc top menu.

**DVD-VR**

Plays the programs (→ page 13).

MENU



PLAY LIST

**DVD-V**

Shows a disc menu.

**DVD-VR**

Plays a playlist (→ page 13).

RETURN

**VCD** with playback control

Shows a disc menu.

**Enter number**

① ② ③

④ ⑤ ⑥

⑦ ⑧ ⑨

⑩ ⑪ ⑫

CALL

OK

**DVD-V** **DVD-VR** **CD** **VCD**

e.g. To select 12: [ ≥ 10 ] → [1] → [2]

**WMA** **MP3** **JPEG** **MPEG4** **DivX**

e.g. To select 123: [ ≥ 10 ] → [1] → [2] → [3] → [OK]

**Main unit display**

FL SELECT



Number display ↔ Time display

**Information screen** **JPEG**

SUBTITLE



# Changing the play sequences

**PLAY MODE**  **Program play** (up to 30 items)  
(except **DVD-VR**)

## 1. **WMA MP3 JPEG MPEG4 DivX**

Discs that contain both video (DivX/MPEG4) and other format (WMA/MP3/JPEG) contents only

While the "PLAYBACK MENU" is displayed

Press **[▲ ▼]** to select "AUDIO/PICTURE" or "VIDEO" and press **[OK]**.

MP3, WMA, JPEG  
DivX, MPEG4



**PLAY MODE**  **Random play**  
(except **DVD-VR**)

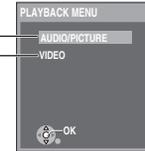
## 1. **WMA MP3 JPEG MPEG4 DivX**

Discs that contain both video (DivX/MPEG4) and other format (WMA/MP3/JPEG) contents only

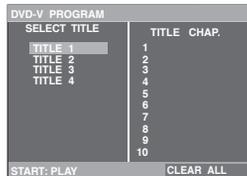
While the "PLAYBACK MENU" is displayed

Press **[▲ ▼]** to select "AUDIO/PICTURE" or "VIDEO" and press **[OK]**.

MP3, WMA, JPEG  
DivX, MPEG4



e.g. **DVD-V**

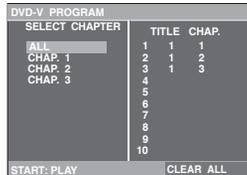


## 2. While stopped, press **[PLAY MODE]** several times to select "\*\*\* PROGRAM".

- When playing a disc with both MP3 and JPEG recorded, select "MUSIC PROGRAM" for MP3 or "PICTURE PROGRAM" for JPEG pictures. You cannot set both "MUSIC PROGRAM" and "PICTURE PROGRAM".

## 3. Press **[▲ ▼]** to select an item and press **[OK]**.

- Repeat this step to program other items.
- To select all items in a disc, title, or group, select "ALL" and press **[OK]**.
- Press **[ANGLE/PAGE]** to skip page by page.
- Press **[RETURN]** to return to the previous menu.



## 4. Press **[▶]** (PLAY) to start play.

### Clearing the program

Press **[▶]** and then press **[▲ ▼]** to select the item and press **[CANCEL]**.

### Clearing the whole program

Press **[▶]** several times to select "CLEAR ALL" and press **[OK]**. The whole program is also cleared when the unit is turned off or the disc tray is opened.

To exit program mode, press **[PLAY MODE]** several times.

e.g. **DVD-V**



## 2. While stopped, press **[PLAY MODE]** several times to select "\*\*\* RANDOM".

- When playing a disc with both MP3 and JPEG recorded, select "MUSIC RANDOM" for MP3 or "PICTURE RANDOM" for JPEG pictures.

## 3. **WMA MP3 JPEG MPEG4 DivX**

Only when the disc has a group (folder)

Press **[▲ ▼]** to select a group and press **[OK]**.

- "★" will be displayed next to the selected groups. Press **[OK]** again to clear.
- To select multiple groups, repeat this step.
- Press **[ANGLE/PAGE]** to skip page by page.
- To select all items in a disc, select "ALL".

### **DVD-V**

Only when the disc has multiple titles

Press **[▲ ▼]** to select a title and press **[OK]**.

- "★" will be displayed next to the selected title.

## 4. Press **[▶]** (PLAY) to start play.

To exit random mode, press **[PLAY MODE]** several times.

# Using navigation menus



## Playing audio (WMA/MP3), picture (JPEG) and video (DivX/MPEG4) discs

### 1. WMA MP3 JPEG MPEG4 DivX

Discs that contain both video (DivX/MPEG4) and other format (WMA/MP3/JPEG) contents only

While the "PLAYBACK MENU" is displayed

Press [▲ ▼] to select "AUDIO/PICTURE" or "VIDEO" and press [OK].

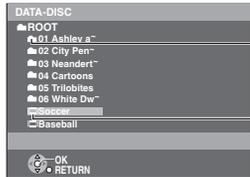
MP3, WMA, JPEG  
DivX, MPEG4



### 2. While the menu is displayed

Press [▲ ▼ ◀ ▶] to select an item and press [OK].

- Repeat this step if there are multiple layers.



Group (Folder)\*

MPEG4/DivX content (File)\*



Group (Folder)\*

MP3/WMA content (File)\*

JPEG content (File)\*

\*Files are treated as contents and folders are treated as groups in these instructions.

- Press [ANGLE/PAGE] to skip page by page.
- Press [RETURN] to go back to previous screen.
- Press [MENU] to display/exit the screen.

**DivX** The video content is distorted according to the recorded method to the discs. This unit cannot play these kinds of discs normally.



## Playing programs/playlists DVD-VR

- Titles appear only if they have been entered.
- You cannot edit playlists and titles.

### Playing the programs

- While stopped, press [DIRECT NAVIGATOR].
- Press [▲ ▼] to select the program.  
Press [◀ ▶] to skip page by page.
- Press [OK].

Program menu

PG	DATE	LENGTH	TITLE
1	01:25 04:31	05:51	MOVIE PICTURE PLAYBACK
2	01:25 05:20	08:20	STILL PICTURE PLAYBACK
3	01:28 10:00	03:00	HYBRID PICTURE PLAYBACK

### Playing the playlist (Only when the disc contains a playlist)

- While stopped, press [PLAY LIST].
- Press [▲ ▼] to select the play list.  
Press [◀ ▶] to skip page by page.
- Press [OK].

Playlist menu

PL	DATE	LENGTH	TITLE
1	01:10 10:00	03:11	MOVIE PICTURE PLAYBACK
2	01:15 08:00	05:30	STILL PICTURE PLAYBACK
3	01:18 08:01	05:31	HYBRID PICTURE PLAYBACK

### Select the picture in thumbnails menu

#### JPEG

1. While pictures are being displayed, press [TOP MENU] to display the thumbnails.

2. To select a picture in a group

Press [▲ ▼ ◀ ▶] to select the picture and press [OK].

- Press [▶▶] to skip forward page by page.
- Press [◀◀] to skip backward page by page.

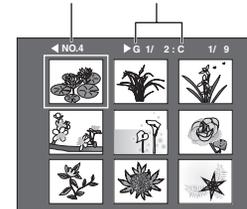
#### To select a picture in other groups

1. Press [▲] to select the group name.

2. Press [◀ ▶] to select the group and press [OK].

3. Press [▲ ▼ ◀ ▶] to select the picture and press [OK].

Group name      Group and content number



## Convenient functions

QUICK OSD



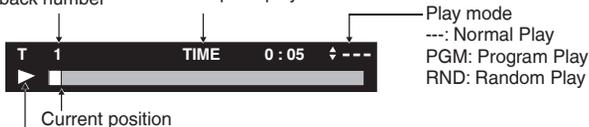
### Displaying current playback condition (Quick On Screen Display)

Press [QUICK OSD].

e.g. **CD**

Current playback number

Press [**▲ ▼**] to change  
current/elapsed play time.



Play mode

---: Normal Play

PGM: Program Play

RND: Random Play

Current position

Playback condition

- To exit the screen, press [QUICK OSD].

ADVANCED SURROUND



### Enjoying advanced surround

Motion pictures with 2 or more channels

Enjoy a surround-like effect when using 2 front speakers.

Press [ADVANCED SURROUND] to select

“A. SURROUND1”, “A. SURROUND2”, “A. SURROUND3” or “OFF”.

OFF → A. SURROUND1 → A. SURROUND2

↑ A. SURROUND3 ↓

**A. SURROUND1:** Light effect  
**A. SURROUND2:** Medium effect  
**A. SURROUND3:** Strong effect  
**OFF:** Off

- When using discs recorded with surround sound, sound seems to come from speakers on either side of you.
- Optimum seating position is 3 to 4 times the distance between the front left and right speakers or the width of the television if using the television's speakers.
- Do not use in combination with surround effects on other equipment.
- The settings remain even when the unit is turned off or the disc tray is opened.
- Turn off if sound is distorted.

REPEAT



### Repeat play

(Only when the elapsed play time can be displayed.)

**JPEG** : you can use even if there is no elapsed time display.)

Press [REPEAT] to select an item to be repeated.

- To cancel, press [REPEAT] to select “OFF”.

e.g. **DVD-V**



PICTURE MODE



### Changing picture mode (Discs with pictures)

Press [PICTURE MODE] to select the picture quality **NORMAL**  
for movie viewing.

**NORMAL:** Normal images.

**CINEMA1:** Mellows images and enhances detail in dark scenes.

**CINEMA2:** Sharpens images and enhances detail in dark scenes.

**DYNAMIC:** Enhances the contrast for powerful images.

**ANIMATION:** Suitable for animation.

**SOFT SKIN:** Softens the skin of people in the images.

PLAY SPEED



### Changing play speed **DVD-V DVD-VR**

(Only when the elapsed play time can be displayed)

During play, press [PLAY SPEED].

Press [**▲ ▼**] to change play speed

– from “×0.6” to “×1.4” (in 0.1 units)

**1.4**

- Press [**▶**] (PLAY) to return to the normal play.
- After you change the speed
  - Advanced surround (**↔** left) does not work.
  - Digital audio output switches to PCM 2ch.
- This may not work depending on the disc's recording.

QUICK REPLAY



### Quick replay (Only when the elapsed play time can be displayed)

**DVD-V DVD-VR WMA MP3 VCD CD**

Press [QUICK REPLAY] to skip back about 10 seconds.

- This may not work depending on the disc's recording.

SUBTITLE



### Changing subtitles (Discs with subtitles)

Press [SUBTITLE] to select the subtitle language.

e.g. **DVD-V**

- On +R/+RW, a subtitle number may be shown for subtitles that are not displayed.
- This may not work depending on the disc's recording.

**1: ENG**

ANGLE/PAGE



### Angle select **DVD-V** (with multiple angles)

Still picture rotation **JPEG**

Press [ANGLE/PAGE] to select the angle.

e.g. **DVD-V**

**JPEG** During pause,

Press [ANGLE/PAGE] to rotate the still picture.

**1**

**Changing soundtracks**

**AUDIO** **DVD-V** **DivX** (with multiple soundtracks)

**DVD-VR** **VCD**

**DVD-V** **DivX** e.g. **DivX**

Press **[AUDIO]** to select the soundtrack. **1: MP3 160kbps 44.1kHz 2ch**

**DVD-VR** **VCD**

You can use this button to select "L", "R", "L+R" or "L R".

**Dialogue enhancer**

**DIALOGUE ENHANCER**

**DVD-V** (Dolby Digital, DTS, 3-channel or over, with the dialogue recorded in the center channel)

**DivX** (Dolby Digital, 3-channel or over, with the dialogue recorded in the center channel)

To make the dialogue in movies easier to hear

Press **[DIALOGUE ENHANCER]** to select "ON".

To cancel, press **[DIALOGUE ENHANCER]** to select "OFF".

- The settings remain even when the unit is turned off or the disc tray is opened.

**CM SKIP**

**Skipping about one minute forward**

**DVD-V** **DVD-VR**

Convenient when you want to skip commercials etc.

During play, press **[CM SKIP]**.

- This may not work depending on the play position.
- DVD-VR** Does not work:
  - with still picture part.
  - when playing a playlist.

**DNR**

**Reducing noise in pictures**

Smooths block noise and reduces the smudging that appears around contrasting sections of the picture.

Press **[DNR]** to select "OFF", "1", "2", or "3".

- 1: Light effect
- 2: Medium effect
- 3: Strong effect
- OFF: Off

**TRANSFER MODE**

**Transfer mode** (Discs with pictures)

With **COMPONENT VIDEO OUT** connection

**AUTO1**

If you have set "VIDEO OUT (I/P)" to "PROGRESSIVE" (→ page 18, "VIDEO" menu).

Press **[TRANSFER MODE]** to select the method of conversion for progressive output to suit the type of material.

- When the tray is opened, the setting will return to AUTO1.

**AUTO1** (normal): Automatically detects the film and video content, and appropriately converts it.

**AUTO2**: In addition to AUTO1, automatically detects film contents with different frame rates and appropriately converts it.

**VIDEO**: Select when using AUTO1 and AUTO2, and the content is distorted.

With **HDMI AV OUT** connection

If you have set "VIDEO FORMAT" to "480p", "720p", "1080p", or "1080i" (→ page 17, On-Screen Menu 4).

Select between **AUTO1**, **AUTO2**, and **VIDEO** for the method of conversion for progressive output.

**ZOOM**

**Zoom** **DVD-V** **DVD-VR** **VCD** **JPEG** **MPEG4** **DivX**

e.g. **VCD**

1. **JPEG** Press **[ ]**.

2. Press **[ZOOM]** to select the zoom ratio.

**NORMAL**

NORMAL → AUTO ( **DVD-V** **DVD-VR** **VCD** only ) → X 2 → X 4

**NORMAL**: Displayed in the size used for recording.

**AUTO**: Automatically zooms in and adjusts the size of images with upper and lower black bands.

**X 2**: 2X zoom

**X 4**: 4X zoom

- Zoom ratio will return to "NORMAL" while stopped, "RESUME STOP", or when the disc tray is opened.

# Using On-Screen Menus

**1** **FUNCTIONS**

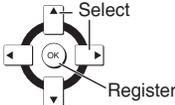


**Press.**

Each time you press the button:

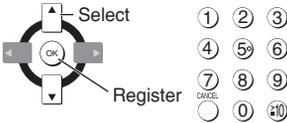
- On-Screen Menu 1 (Disc/Play)
- ↓
- On-Screen Menu 2 (Video)
- ↓
- On-Screen Menu 3 (Audio)
- ↓
- On-Screen Menu 4 (HDMI)
- ↓
- Exit

**2**



**Select the item.**

**3**



**Make the settings.**

**4**



**Press to exit.**

**Note**

Press [FUNCTIONS] will display only "On-Screen Menu 4" during "nodISC" or when the disc tray is opened. Items shown differ depending on the type of software.

## On-Screen Menu 1 (Disc/Play)

e.g. <b>DVD-V</b>	<b>PG SEARCH, PL SEARCH, TITLE SEARCH, CHAPTER SEARCH, TRACK SEARCH, CONTENT SEARCH</b>	<p><b>To start from a specific item</b></p> <ul style="list-style-type: none"> <li>Press [▲▼] to select and press [OK], or, press the numbered buttons.</li> </ul> <p><b>VCD</b> This does not work when using playback control (↪ page 20, Glossary).</p>
T9 C99	<b>SEARCH</b>	
	<b>AUDIO</b>	(↪ page 15, Changing soundtracks)
	<b>PLAY SPEED</b>	(↪ page 14, Changing play speed)
	<b>REPEAT MODE</b>	(↪ page 14, Repeat play) <b>A-B Repeat</b> (To repeat a specified section) Except still picture on <b>JPEG DivX MPEG4</b> Press [OK] at the starting and ending points. • Select "OFF" to cancel.
	<b>SUBTITLE</b>	(↪ page 14, Changing subtitles)
	<b>ANGLE</b>	(↪ page 14, Angle select)
	<b>DATE DISPLAY</b>	<b>JPEG</b> Displays the photograph date OFF ← → ON
	<b>ROTATION</b>	(↪ page 14, Still picture rotation)

## On-Screen Menu 2 (Video)

	<b>PICTURE MODE</b>	(↪ page 14, Changing picture mode)
	<b>ZOOM</b>	(↪ page 15, Zoom)
	<b>DNR</b>	(↪ page 15, Reducing noise in pictures)
	<b>TRANSFER MODE</b>	(↪ page 15, Transfer mode)
	<b>SOURCE SELECT</b> <b>DivX</b> (depends on disc)	<p>When you select "AUTO" the constructing method of the DivX contents is automatically distinguished and output. If the picture is distorted, select "INTERLACE" or "PROGRESSIVE" depending on which constructing method was used when the contents were recorded to disc.</p> <p><b>AUTO, INTERLACE, PROGRESSIVE</b></p>

## On-Screen Menu 3 (Audio)

	<b>DIALOGUE ENHANCER</b>	(⇨ page 15, Dialogue enhancer)																		
	<b>RE-MASTER</b>	<p><b>DVD-V DVD-VR CD</b> Discs recorded with multi channels LPCM at 44.1 kHz or 48 kHz This feature gives you a more natural sound by adding the higher frequency signals not recorded on the disc.</p> <p><b>WMA MP3</b> Discs recorded at 44.1 kHz or 48 kHz This feature reproduces the frequencies lost during recording to give you a sound closer to the original.</p> <p>Press [▲ ▼] to select “OFF”, “1”, “2” or “3”.</p> <table border="1"> <thead> <tr> <th>Setting</th> <th>Type of music</th> <th>Effect level</th> </tr> </thead> <tbody> <tr> <td></td> <td><b>DVD-V CD</b></td> <td><b>WMA MP3</b></td> </tr> <tr> <td>1</td> <td>High tempo (e.g., pop and rock)</td> <td>Light</td> </tr> <tr> <td>2</td> <td>Various tempos (e.g., jazz)</td> <td>Medium</td> </tr> <tr> <td>3</td> <td>Low tempo (e.g., classical)</td> <td>Strong</td> </tr> <tr> <td>OFF</td> <td>Off</td> <td>Off</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>When connecting with DIGITAL AUDIO OUT terminal, the actual output sampling frequency depends on “PCM OUTPUT” setting in “AUDIO” menu (⇨ page 19).</li> <li>This feature may not work when connected with HDMI AV OUT terminals.</li> <li>This may not work depending on the disc’s recording.</li> <li>This does not work with <b>MP3</b> on DVD-RAM or DVD-R/RW.</li> </ul>	Setting	Type of music	Effect level		<b>DVD-V CD</b>	<b>WMA MP3</b>	1	High tempo (e.g., pop and rock)	Light	2	Various tempos (e.g., jazz)	Medium	3	Low tempo (e.g., classical)	Strong	OFF	Off	Off
	Setting	Type of music	Effect level																	
	<b>DVD-V CD</b>	<b>WMA MP3</b>																		
1	High tempo (e.g., pop and rock)	Light																		
2	Various tempos (e.g., jazz)	Medium																		
3	Low tempo (e.g., classical)	Strong																		
OFF	Off	Off																		
	<b>ADVANCED SURROUND</b>	(⇨ page 14, Enjoying advanced surround)																		

### Note

You cannot use settings in On-Screen Menu 3 during pause, slow-motion, and search.

## On-Screen Menu 4 (HDMI)

	<b>HDMI STATUS</b>	<p>Indicates various information when connected with HDMI AV OUT terminal (⇨ below, Confirming HDMI information).</p> <p>■ <b>Confirming HDMI information</b></p> <p>e.g. <b>DVD-V</b></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">HDMI - INFORMATION</p> <table border="1" style="width: 100%;"> <tr> <td>CONNECTED STATE</td> <td>CONNECTED</td> </tr> <tr> <td>AUDIO STREAM</td> <td>PCM</td> </tr> <tr> <td>MAX CHANNEL</td> <td>2 ch</td> </tr> <tr> <td>VIDEO FORMAT</td> <td>480p</td> </tr> <tr> <td>COLOR SPACE</td> <td>YCbCr 4:4:4</td> </tr> </table> </div> <p>⇨ below, COLOR SPACE</p> <p>⇨ below, VIDEO FORMAT</p> <p>Shows the maximum channel number of the connected equipments.</p> <p>⇨ page 15, Changing soundtracks Connection status</p>	CONNECTED STATE	CONNECTED	AUDIO STREAM	PCM	MAX CHANNEL	2 ch	VIDEO FORMAT	480p	COLOR SPACE	YCbCr 4:4:4
CONNECTED STATE	CONNECTED											
AUDIO STREAM	PCM											
MAX CHANNEL	2 ch											
VIDEO FORMAT	480p											
COLOR SPACE	YCbCr 4:4:4											
	<b>HD ENHANCER</b>	<p>With HDMI connection (When “VIDEO PRIORITY” is set to “ON”) (⇨ page 19, “HDMI” menu)</p> <p>Makes the quality of HDMI video output (720p, 1080i, 1080p) sharp.</p> <p>OFF, 1 (weakest) to 3 (strongest)</p>										
	<b>VIDEO FORMAT</b>	<p>With HDMI connection (When “VIDEO PRIORITY” is set to “ON”) (⇨ page 19, “HDMI” menu)</p> <p><b>480p/720p/1080p</b> (progressive)</p> <p><b>480i/1080i</b> (interlace)</p> <ul style="list-style-type: none"> <li>The item will vary depending on the connected equipment.</li> </ul>										
	<b>COLOR SPACE</b>	<p>With HDMI connection (When “VIDEO PRIORITY” is set to “ON”) (⇨ page 19, “HDMI” menu)</p> <p><b>RGB YCbCr 4:4:4 YCbCr 4:2:2</b></p> <ul style="list-style-type: none"> <li>An “*” mark will only appear for the corresponding connected equipment model.</li> </ul>										

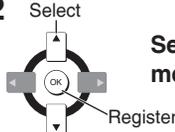
# Changing the player settings

**1**



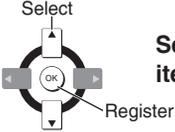
**Shows Setup menu.**

**2**



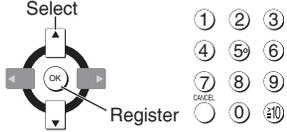
**Select the menu.**

**3**



**Select the item.**

**4**



**Make the settings.**

**5**



**Press to exit.**

- The settings remain intact even if you switch the unit to standby.
- Underlined items are the factory preset.

The QUICK SETUP enables successive settings of the items in the shaded area.

## ■ “DISC” menu

SETTING STATE	Display the current setting of the items below
<b>AUDIO</b> Choose the audio language.	<u>ENGLISH</u> FRENCH SPANISH ORIGINAL*1 OTHER ----*2
<b>SUBTITLE</b> Choose the subtitle language.	<u>AUTO</u> *3 ENGLISH FRENCH SPANISH OTHER ----*2
<b>MENUS</b> Choose the language for disc menus.	<u>ENGLISH</u> FRENCH SPANISH OTHER ----*2
<b>RATINGS</b> Set a ratings level to limit DVD-Video play.	Setting ratings (When level 8 is selected) <b>0 LOCK ALL:</b> To prevent play of discs without ratings levels. <b>1 to 7:</b> To prohibit play of DVD-Video with corresponding ratings recorded on them. <b>8 NO LIMIT</b> When setting a ratings level, a password screen is shown. Follow the on-screen instructions. <b>Do not forget your password.</b> A message screen will be shown if a DVD-Video exceeding the ratings level is inserted in the unit. Follow the on-screen instructions.
<b>PASSWORD</b> Change the password for “RATINGS” (↷ above).	1. Select “CHANGE” and press [OK]. 2. Enter the current password with the numbered buttons, then press [OK]. 3. Enter the new password with the numbered buttons, then press [OK]. If “VERIFY” is displayed, please verify the password and insert it again.

- \*1 The original language designated on the disc is selected.  
\*2 Input a code number referring to the table (↷ page 20).  
\*3 If the language selected for “AUDIO” is not available, subtitles appear in that language (If available on the disc).  
\*4 This may not work depending on the disc. If this does not work, change the aspect setting of television.

## ■ “VIDEO” menu

SETTING STATE	Display the current setting of the items below						
<b>TV ASPECT</b> *4 Choose the setting to suit your television and preference.  To select how to show images made for 16:9 aspect screens on a 4:3 aspect television. • 4:3PAN&SCAN • 4:3LETTERBOX • 4:3ZOOM  To select how to show images made for 4:3 aspect screens on a 16:9 aspect television. • 16:9NORMAL • 16:9SHRINK • 16:9ZOOM	<p><b>4:3PAN&amp;SCAN</b> The sides of the picture are cut off so it fills the screen (unless prohibited by the disc). </p> <p><b>4:3LETTERBOX</b> Picture is shown in the letterbox style. </p> <p><b>4:3ZOOM</b> Scales down the horizontal edges of a 4:3 aspect ratio image. </p> <p><b>16:9NORMAL</b> Stretches a 16:9 aspect ratio image horizontally. </p> <p><b>16:9SHRINK</b> Displays a 4:3 aspect ratio image in the center of the screen. </p> <p><b>16:9ZOOM</b> Adjusts the horizontal width to display a full screen image in 16:9 aspect ratio. </p>						
<b>TV TYPE</b> Select to suit the type of television.	<b>STANDARD</b> CRT LCD PROJECTION PLASMA						
<b>TIME DELAY</b> When connected with an AV amplifier and Plasma display, adjust if you notice the audio is out of sync with the video.	<table border="1"> <tr> <td><b>0 ms</b></td> <td><b>20 ms</b></td> <td><b>40 ms</b></td> </tr> <tr> <td><b>60 ms</b></td> <td><b>80 ms</b></td> <td><b>100 ms</b></td> </tr> </table>	<b>0 ms</b>	<b>20 ms</b>	<b>40 ms</b>	<b>60 ms</b>	<b>80 ms</b>	<b>100 ms</b>
<b>0 ms</b>	<b>20 ms</b>	<b>40 ms</b>					
<b>60 ms</b>	<b>80 ms</b>	<b>100 ms</b>					
<b>STILL MODE</b> Specify the type of picture shown when paused.	<b>AUTO</b>						
<b>BLACK LEVEL</b> Change the black level of the picture if you connected a television through the COMPONENT VIDEO OUT terminals.	<p><b>FIELD:</b> The picture is not blurred, but picture quality is lower.</p> <p><b>FRAME:</b> Overall quality is high, but the picture may appear blurred.</p> <p><b>LIGHTER:</b> When connected through VIDEO OUT or S VIDEO OUT.</p> <p><b>DARKER:</b> When connected through COMPONENT VIDEO OUT.</p> <ul style="list-style-type: none"> <li>• This setting is irrelevant when connected through the HDMI AV OUT terminal.</li> </ul>						

<b>VIDEO OUT (I/P)</b> Select "PROGRESSIVE" only if connecting to a progressive output compatible television.	<b>INTERLACE PROGRESSIVE</b> When you select "PROGRESSIVE", a message screen will appear. <ul style="list-style-type: none"> <li>For progressive output, press [▲] and then press [OK].</li> <li>Press [RETURN] to cancel.</li> </ul>
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### ■ "AUDIO" menu

<b>SETTING STATE</b>	Display the current setting of the items below
<b>PCM OUTPUT*</b> Check the digital input limitations of the equipment you connect using COAXIAL terminal and select the maximum sampling frequency of PCM digital output.	<b>UP TO 48kHz:</b> When connected to equipment compatible with 44.1 or 48 kHz <b>UP TO 96kHz:</b> When connected to equipment compatible with 88.2 or 96 kHz <ul style="list-style-type: none"> <li>Signals from copy-protected discs are converted to 48 or 44.1 kHz.</li> <li>Some equipment cannot handle sampling frequencies of 88.2 kHz, even if they can handle 96 kHz. Read your equipment's operating instructions for details.</li> </ul>

<b>DOLBY DIGITAL*</b> With COAXIAL or HDMI AV OUT connections (↷ pages 8 and 9)	<b>BITSTREAM</b> <b>PCM</b>	Select " <b>BITSTREAM</b> " when the equipment can decode the bitstream (digital form of multi-channel data). Otherwise, select " <b>PCM</b> ". (If the bitstream is output to the equipment without a decoder, high levels of noise can be output and may damage your speakers and hearing.)
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<b>DTS*</b> With COAXIAL or HDMI AV OUT connections (↷ pages 8 and 9)	<b>BITSTREAM</b> <b>PCM</b>	Select " <b>BITSTREAM</b> " when the equipment can decode the bitstream (digital form of multi-channel data). Otherwise, select " <b>PCM</b> ". (If the bitstream is output to the equipment without a decoder, high levels of noise can be output and may damage your speakers and hearing.)
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<b>DYNAMIC RANGE</b>	<b>ON:</b> Adjusts for clarity even when the volume is low through compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing. (Only works with Dolby Digital.) <b>OFF</b>
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\* When audio is output from HDMI AV OUT terminal, and the connected equipment does not support the item selected, the actual output will depend on the performance of this connected equipment.

### ■ "DISPLAY" menu

<b>SETTING STATE</b>	Display the current setting of the items below
<b>LANGUAGE</b>	<b>ENGLISH FRANÇAIS ESPAÑOL</b>

### ■ "HDMI" menu

<b>SETTING STATE</b>	Display the current setting of the items below
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<b>VIDEO PRIORITY</b>	<b>ON:</b> When connected through the HDMI AV OUT terminal. Video is output from the HDMI terminal. Video is also output from the COMPONENT VIDEO OUT terminal, but only in 480i (interlace). <b>OFF:</b> When connected through the COMPONENT VIDEO OUT terminal. Video is output from the COMPONENT VIDEO OUT terminal according to the setting of "VIDEO OUT (I/P)" (↷ page 19, "VIDEO" menu). Video is also output from the HDMI terminal.
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<b>AUDIO OUT</b>	<b>ON:</b> Audio output is from HDMI AV OUT terminal. <b>OFF:</b> Audio output is not from HDMI AV OUT terminal.
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<b>RGB RANGE</b>	<b>STANDARD</b> <b>ENHANCED:</b> When the black and white images are not distinct. <ul style="list-style-type: none"> <li>It only works when the COLOR SPACE (↷ page 17, On-Screen Menu 4) is set to RGB.</li> </ul>
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<b>VIERA Link</b>	<b>ON:</b> The VIERA Link "HDAVI Control™" is available (↷ pages 24 to 25). <b>OFF</b>
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### ■ "OTHERS" menu

<b>SETTING STATE</b>	Display the current setting of the items below
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<b>REGISTRATION</b> Displays the unit's registration code.	<b>SHOW CODE:</b> You need this registration code to purchase and play DivX Video-on-Demand (VOD) content (↷ page 23, About DivX VOD contents).
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<b>JPEG TIME</b>	To change the slideshow timing <b>1 SEC to 15 SEC</b> (in 1 unit) <b>15 SEC to 60 SEC</b> (in 5 unit) <b>60 SEC to 180 SEC</b> (in 30 unit) <ul style="list-style-type: none"> <li>"3 SEC" is the factory preset.</li> </ul>
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<b>FL DIMMER</b> Changes the brightness of the unit's display.	<b>BRIGHT DIM</b> <b>AUTO:</b> The display is dimmed, but brightens only when you perform some operations.
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<b>AUTO POWER OFF</b>	<b>ON:</b> The unit switches to standby mode after about 30 minutes in the stop mode. <b>OFF</b>
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<b>QUICK SETUP</b>	<b>SET:</b> Displays the QUICK SETUP settings
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<b>DVD-VR/DATA</b> Select format to play DVD-RAM discs.	<b>DVD-VR:</b> To play <b>DVD-VR</b> on DVD-RAM. <b>DATA:</b> To play <b>MP3</b> or <b>JPEG</b> contents on DVD-RAM.
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<b>DEFAULTS</b> This returns all values in the Setup menus to the default settings.	<b>RESET</b> The password screen is shown if "RATINGS" (↷ page 18) is set. Please enter the same password and press [OK], then turn the unit off and on again.
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## Language code list

Abkhazian:	6566	Hebrew:	7387	Samoan:	8377
Afar:	6565	Hindi:	7273	Sanskrit:	8365
Afrikaans:	6570	Hungarian:	7285	Scots Gaelic:	7168
Albanian:	8381	Icelandic:	7383	Serbian:	8382
Ameharic:	6577	Indonesian:	7378	Serbo-Croatian:	8372
Arabic:	6582	Interlingua:	7365	Shona:	8378
Armenian:	7289	Irish:	7165	Sindhi:	8368
Assamese:	6583	Italian:	7384	Singhalese:	8373
Aymara:	6589	Japanese:	7465	Slovak:	8375
Azerbaijani:	6590	Javanese:	7487	Slovenian:	8376
Bashkir:	6665	Kannada:	7578	Somali:	8379
Basque:	6985	Kashmiri:	7583	Spanish:	6983
Bengali; Bangla:	6678	Kazakh:	7575	Sundanese:	8385
Bhutani:	6890	Kirghiz:	7589	Swahili:	8387
Bihari:	6672	Korean:	7579	Swedish:	8386
Breton:	6682	Kurdish:	7585	Tagalog:	8476
Bulgarian:	6671	Laotian:	7679	Tajik:	8471
Burmese:	7789	Latin:	7665	Tamil:	8465
Byelorussian:	6669	Latvian, Lettish:	7686	Tatar:	8484
Cambodian:	7577	Lingala:	7678	Telugu:	8469
Catalan:	6765	Lithuanian:	7684	Thai:	8472
Chinese:	9072	Macedonian:	7775	Tibetan:	6679
Corsican:	6779	Malagasy:	7771	Tigrinya:	8473
Croatian:	7282	Malay:	7783	Tonga:	8479
Czech:	6783	Malayalam:	7776	Turkish:	8482
Danish:	6865	Maltese:	7784	Turkmen:	8475
Dutch:	7876	Maori:	7773	Twi:	8487
English:	6978	Marathi:	7782	Ukrainian:	8575
Esperanto:	6979	Moldavian:	7779	Urdu:	8582
Estonian:	6984	Mongolian:	7778	Uzbek:	8590
Faroese:	7079	Nauru:	7865	Vietnamese:	8673
Fiji:	7074	Nepali:	7869	Volapük:	8679
Finnish:	7073	Norwegian:	7879	Welsh:	6789
French:	7082	Oriya:	7982	Wolof:	8779
Frisian:	7089	Pashto, Pushto:	8083	Xhosa:	8872
Galician:	7176	Persian:	7065	Yiddish:	7473
Georgian:	7565	Polish:	8076	Yoruba:	8979
German:	6869	Portuguese:	8084	Zulu:	9085
Greek:	6976	Punjabi:	8065		
Greenlandic:	7576	Quechua:	8185		
Guarani:	7178	Rhaeto-Romance:	8277		
Gujarati:	7185	Romanian:	8279		
Hausa:	7265	Russian:	8285		

## Glossary

### DivX

DivX is a popular media technology created by DivX, Inc. DivX media files contain highly compressed video with high visual quality that maintains a relatively small file size.

### Down-mixing

This is a process of remixing the multi-channel audio (surround sound) on some discs into two channels. When you want to listen to the audio on a DVD with a 5.1 channel digital surround track through your television speakers, the down-mixed audio will be output.

### Film and video

DVD-Videos are recorded using either film or video. This unit can determine which type has been used, then uses the most suitable method of progressive output.

Film: Recorded at 24 frames per second. (Recorded at 30 frames per second as well). Generally appropriate for motion picture films.

Video: Recorded at 30 frames/60 fields per second. Generally appropriate for TV drama programs or animation.

### HDMI (High-Definition Multimedia Interface)

HDMI is a next-generation digital interface for consumer electronic products. Unlike conventional connections, it transmits uncompressed digital video and audio signals on a single cable. This unit supports high-definition video output (1080p, 1080i) from HDMI AV OUT terminal. To enjoy high-definition video a high definition compatible television is required.

HDMI can transmit more video data in Deep Color mode for expressing more colors. To enjoy video in Deep Color mode a television which supports Deep Color mode is required.

Connected to the Deep Color compatible television, this unit can automatically output video in Deep Color mode.

### MPEG4

A compression system for use on mobile devices or a network, that allows highly efficient recording at a low bit rate.

### Sampling frequency

Sampling is the process of converting the heights of sound wave (analog signal) samples taken at set periods into digits (digital encoding). Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

### Playback control (PBC)

If a Video CD has playback control, you can select scenes and information with menus. (This unit is compatible with version 2.0 and 1.1.)

# Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the solutions indicated in the chart do not solve the problem, refer to "Customer Services Directory" on page 26 if you reside in the U.S.A., or refer to "Product information" on page 4 if you reside in Canada.

## Power

<b>No power.</b>	<ul style="list-style-type: none"> <li>Insert the AC power supply cord securely into the household AC outlet. <b>(9)</b></li> </ul>
<b>The unit is automatically switched to the standby mode.</b>	<ul style="list-style-type: none"> <li>When "AUTO POWER OFF" is set to "ON", the unit automatically switches to standby after approximately 30 minutes in the stop mode. <b>(19)</b></li> </ul>

## No operation

<b>No response when any buttons pressed.</b>	<ul style="list-style-type: none"> <li>This unit cannot play discs other than the ones listed in these operating instructions. <b>(5)</b></li> <li>The unit may not be operating properly due to lightning, static electricity or some other external factor. Turn the unit off and then back to ON. Alternatively, turn the unit off, disconnect the AC power supply cord, and then reconnect it.</li> <li>Condensation has formed: Wait 1 to 2 hours for it to evaporate.</li> </ul>
<b>No response when remote control buttons pressed.</b>	<ul style="list-style-type: none"> <li>Check that the batteries are installed correctly. <b>(9)</b></li> <li>The batteries are depleted: Replace them with new ones. <b>(9)</b></li> <li>Point the remote control at the remote control sensor and operate. <b>(10)</b></li> </ul>
<b>No picture or sound.</b>	<ul style="list-style-type: none"> <li>Check the video or audio connection. <b>(7 to 9)</b></li> <li>Check the power or input setting of the connected equipment.</li> </ul>
<b>You have forgotten your ratings password.</b> Reset all the settings to Factory Preset.	<ul style="list-style-type: none"> <li>While stopped, remove the disc, and then press and hold [▶] (PLAY) and [■] on the unit and then also press and hold [POWER ⏻/⏪] on the unit until "INITIALIZED" disappears from the television. Turn the unit off and on again. All settings will return to the default values.</li> </ul>

## Specific operation impossible or incorrect

<b>It takes time before play starts.</b> <b>MP3 DivX</b>	<ul style="list-style-type: none"> <li>Play may take time to begin when an MP3 track has still picture data. Even after the track starts, the correct play time will not be displayed, however this is normal.</li> <li>This is normal on DivX video.</li> </ul>
<b>The program functions do not work.</b>	<ul style="list-style-type: none"> <li>These functions do not work with some DVD-Videos.</li> </ul>
<b>Menu doesn't appear.</b> <b>VCD</b> with playback control	<ul style="list-style-type: none"> <li>Press [■] twice and then press [▶] (PLAY).</li> </ul>
<b>Play doesn't start.</b>	<ul style="list-style-type: none"> <li>If a disc contains CD-DA and other formats, proper playback may not be possible.</li> <li>This unit may not play WMA and MPEG4 that contains still picture data.</li> <li>If playing DivX VOD content, refer to the homepage where you purchased it. (Example: <a href="http://www.divx.com/vod">www.divx.com/vod</a>)</li> </ul>
<b>No subtitles.</b>	<ul style="list-style-type: none"> <li>Display the subtitles. <b>(14)</b></li> </ul>
<b>The subtitles overlap closed captions recorded on discs.</b>	<ul style="list-style-type: none"> <li>Clear the subtitles. <b>(14)</b></li> </ul>
<b>In A-B Repeat, point B is automatically set.</b>	<ul style="list-style-type: none"> <li>The end of an item becomes point B when it is reached.</li> </ul>
<b>Repeat play is automatically canceled.</b>	<ul style="list-style-type: none"> <li>A-B Repeat is canceled when you press [QUICK REPLAY].</li> <li>Repeat play may be canceled when you press [CM SKIP].</li> </ul>

## Progressive video

<b>There is ghosting when progressive or HDMI output is on.</b>	<ul style="list-style-type: none"> <li>This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlace output. Change "VIDEO OUT (I/P)" in "VIDEO" menu to "INTERLACE". <b>(19)</b></li> </ul>
<b>Pictures not in progressive output.</b>	<ul style="list-style-type: none"> <li>If the unit is connected to the television through VIDEO OUT or S VIDEO OUT, output will be interlace.</li> </ul>
<b>Closed captions not displayed.</b>	<ul style="list-style-type: none"> <li>When progressive output or HDMI output is on, closed captions will not be displayed.</li> </ul>

## Picture incorrect

<b>Picture distorted.</b>	<ul style="list-style-type: none"> <li>Ensure that the unit is not connected through a video cassette recorder. <b>(7)</b></li> <li>Make sure that progressive output has not been selected when the connected television is not progressive compatible. Press and hold [RETURN] until the picture displays correctly. The settings will return to "INTERLACE".</li> <li><b>DivX</b> Change "SOURCE SELECT" in On-Screen Menu 2. <b>(16)</b></li> </ul>
<b>Picture size doesn't fit the screen.</b> <b>DivX</b>	<ul style="list-style-type: none"> <li>Change "TV ASPECT" in "VIDEO" menu. <b>(18)</b></li> <li>Use the television to change the aspect. If your television does not have that function, change "TV ASPECT". <b>(18)</b></li> <li>Change the zoom setting. <b>(15)</b></li> </ul>
<b>Picture stops.</b>	<ul style="list-style-type: none"> <li>Picture may stop if the DivX files are greater than 2GB.</li> </ul>
<b>The television may display incorrectly or colors appear faded.</b>	<ul style="list-style-type: none"> <li>PAL discs cannot be played.</li> <li>Connect to a progressive output compatible television to enjoy progressive video.</li> <li>Picture may not be seen when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices.</li> </ul>
<b>Menu not displayed correctly.</b>	<ul style="list-style-type: none"> <li>Restore the zoom ratio to "NORMAL". <b>(15)</b></li> <li>Change "TV ASPECT" in "VIDEO" menu. <b>(18)</b></li> </ul>

## Recording

<b>Cannot record to digital recording equipment. (Incorrect sound recorded.)</b>	<ul style="list-style-type: none"> <li>You cannot record WMA/MP3.</li> <li>You cannot record DVDs that have protection preventing digital recording.</li> <li>You cannot record DVDs if the recording equipment cannot handle signals with a sampling frequency of 48 kHz.</li> <li>Make the following settings:             <ul style="list-style-type: none"> <li>ADVANCED SURROUND: OFF <b>(14)</b></li> <li>PCM OUTPUT: UP TO 48kHz <b>(19)</b></li> <li>DOLBY DIGITAL: PCM <b>(19)</b></li> <li>DTS: PCM <b>(19)</b></li> </ul> </li> </ul>
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## Sound incorrect

<b>Sound distorted.</b>	<ul style="list-style-type: none"> <li>Set Advanced surround to "OFF". <b>(14)</b></li> <li>Noise may occur when playing WMA files.</li> <li>With HDMI AV OUT connections, audio may not be output from other terminals in the way that was set.</li> </ul>
<b>No sound.</b>	<ul style="list-style-type: none"> <li>Turn the volume up.</li> <li><b>DivX</b> Audio may not be output due to how files were created.</li> <li>Audio may not be heard when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices.</li> <li>When using the HDMI connection, ensure that "AUDIO OUT" in the "HDMI" menu is set to "ON".</li> </ul>
<b>Piercing noise comes from the speakers.</b>	<ul style="list-style-type: none"> <li>If you have connected a digital amplifier which does not include decoder, be sure to select "PCM" in "DOLBY DIGITAL" or "DTS" in "AUDIO" menu. <b>(19)</b></li> </ul>
<b>Effects do not work.</b>	<ul style="list-style-type: none"> <li>None of the audio effects work when the unit is outputting bitstream signals from the COAXIAL or HDMI AV OUT terminal. <b>(8, 9)</b></li> <li>Some audio effects do not work or have less effect with some discs.</li> <li>Advanced surround and Re-master do not work if you have changed the play speed.</li> </ul>

## Unit displays

 The number following "H" depends on the status of the unit.	<ul style="list-style-type: none"> <li>Trouble may have occurred. Turn the unit off and then back to ON. Alternatively, turn the unit off, disconnect the AC power supply cord, and then reconnect it.</li> <li>If the service numbers fail to clear, note the service number and contact a qualified service person.</li> </ul>
	<ul style="list-style-type: none"> <li>You inserted a disc the unit cannot play; insert one it can. <b>(5)</b></li> <li>You inserted a blank disc.</li> <li>You inserted a disc that has not been finalized. <b>(5)</b></li> </ul>
	<ul style="list-style-type: none"> <li>You haven't inserted a disc: Insert one.</li> <li>You haven't inserted the disc correctly: Insert it correctly. <b>(10)</b></li> </ul>
	<ul style="list-style-type: none"> <li>The disc may be dirty. <b>(6)</b></li> <li>You haven't inserted the disc correctly: Insert it correctly. <b>(10)</b></li> </ul>
	<ul style="list-style-type: none"> <li>The connected equipment is not HDMI-compatible.</li> </ul>
 	<ul style="list-style-type: none"> <li>The HDMI connection acts unusually.             <ul style="list-style-type: none"> <li>The connected equipment is not HDMI-compatible.</li> <li>The HDMI cable is too long.</li> <li>The HDMI cable is damaged.</li> </ul> </li> </ul>

## About DivX VOD contents

### Television displays

<p>“ERR H □□” □□ stands for a number.</p>	<ul style="list-style-type: none"> <li>Trouble may have occurred. The number following “ERR H” depends on the status of the unit. Turn the unit off and then back to ON. Alternatively, turn the unit off, disconnect the AC power supply cord, and then reconnect it.</li> <li>If the service numbers fail to clear, note the service number and contact a qualified service person.</li> </ul>
“ERR U11”	<ul style="list-style-type: none"> <li>The disc may be dirty. <b>(6)</b></li> <li>You haven't inserted the disc correctly: Insert it correctly. <b>(10)</b></li> </ul>
“Ⓞ”	<ul style="list-style-type: none"> <li>The operation is prohibited by the unit or disc.</li> </ul>
“NO DISC”	<ul style="list-style-type: none"> <li>You haven't inserted a disc: Insert one.</li> <li>You haven't inserted the disc correctly: Insert it correctly. <b>(10)</b></li> </ul>
“CANNOT PLAY AUDIO” “NO AUDIO”	<ul style="list-style-type: none"> <li>Audio has not been recorded, or recorded in a format this unit cannot playback. Video playback only is possible. <b>(6)</b></li> </ul>
“THIS DISC MAY NOT BE PLAYED IN YOUR REGION.”	<ul style="list-style-type: none"> <li>You can only play DVD-Video if their region number is “1”, “ALL” or multiple region numbers including “1”. <b>(Cover)</b></li> </ul>
“THIS TYPE OF DISC CANNOT BE PLAYED. PLEASE INSERT A DIFFERENT DISC.”	<ul style="list-style-type: none"> <li>You inserted a disc that has not been finalized. <b>(5)</b></li> <li>You inserted a disc the unit cannot play; insert one it can. <b>(5)</b></li> <li>You inserted a blank disc.</li> </ul>
“AUTHORIZATION ERROR THIS PLAYER IS NOT AUTHORIZED TO PLAY THIS VIDEO.” DivX	<ul style="list-style-type: none"> <li>You are trying to play the DivX VOD content that was purchased with a different registration code. You cannot play the content on this unit. <b>(23)</b></li> </ul>
“RENTAL EXPIRED” DivX	<ul style="list-style-type: none"> <li>The DivX VOD content has zero remaining plays. You cannot play it. <b>(23)</b></li> </ul>

DivX Video-on-Demand (VOD) content is encrypted for copyright protection. In order to play DivX VOD content on this unit, you first need to register the unit. Follow the on-line instructions for purchasing DivX VOD content to enter the unit's registration code and register the unit. For more information about DivX VOD, visit [www.divx.com/vod](http://www.divx.com/vod).

#### Display the unit's registration code

(⇒ page 19, “REGISTRATION” in “OTHERS” menu)



8 alphanumeric characters

- We recommend that you make a note of this code for future reference.
- After playing DivX VOD content for the first time, another registration code is then displayed in “REGISTRATION”. Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play the content on this unit, you will no longer be able to play any content that you purchased using the previous code.
- If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content. (“AUTHORIZATION ERROR” is displayed.)

#### Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times. When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. (“RENTAL EXPIRED” is displayed.)

When playing this content

- The number of remaining plays is reduced by one if
  - you press [Ⓞ] or [SETUP].
  - you press [■]. (Press [||] to stop play.)
  - you press [◀◀ ▶▶] or [◀▶▶▶] etc. and arrive at another content or the start of the content being played.
- Resume (⇒ page 10, Stop) function does not work.

## What is VIERA Link “HDAVI Control”?

VIERA Link™ is a new name for EZ Sync™.

VIERA Link “HDAVI Control” is a convenient function that offers linked operations of this unit, and a Panasonic TV (VIERA) or receiver under “HDAVI Control”. You can use this function by connecting the equipment with the HDMI cable. See the operating instructions for connected equipment for operational details.

- VIERA Link “HDAVI Control”, based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturer’s equipment that supports HDMI CEC cannot be guaranteed.
- This unit supports “HDAVI Control 2” function.  
“HDAVI Control 2” is the newest standard (current as of February, 2007) for Panasonic’s HDAVI Control compatible equipment. This standard is compatible with Panasonic’s conventional HDAVI equipment.
- Please refer to individual manuals for other manufacturers’ equipment supporting VIERA Link function.
- **It is recommended that you use Panasonic’s HDMI cable.**  
Recommended part number: RP-CDHG10 (1.0 m/3.3 ft.), RP-CDHG15 (1.5 m/4.9 ft.), RP-CDHG20 (2.0 m/6.6 ft.), RP-CDHG30 (3.0 m/9.8 ft.), RP-CDHG50 (5.0 m/16.4 ft.), etc.
- **Non-HDMI-compliant cables cannot be utilized.**

### Preparation

- 1 Connect this unit to your TV or amplifier with an HDMI cable (➡ 8).
- 2 Set “VIERA Link” to “ON” (➡ 19, “HDMI” menu).
- 3 Set the “HDAVI Control” operations on the connected equipment (e.g., TV).
  - **When using HDMI2 terminal of VIERA as HDAVI Control, set the input channel to HDMI2 on VIERA.**
- 4 Turn on all “HDAVI Control” compatible equipment and select this unit’s input channel on the connected TV so that the HDAVI Control function works properly.

**Also when the connection or settings are changed, repeat this procedure.**

## Automatic input switching

When play starts on the unit, the television input will automatically switch to the HDMI input mode and the television displays the corresponding action.

## Power on link

When the television is off and play starts on the unit, the television will automatically turn on.  
(Picture or sound may not be available for the first few seconds.)

## Power off link

All connected equipment compatible with VIERA Link “HDAVI Control” including this unit automatically turns off when you switch the television off.

- When this unit is connected to an “HDAVI Control” compatible Panasonic receiver with an HDMI cable, the receiver will also turn off.
- Only this unit turns off when you press the power button of the unit or the remote control for shutting it down. Other connected equipment compatible with VIERA Link “HDAVI Control” stay on.

## Easy control only with VIERA remote control

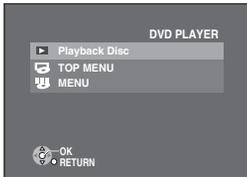
If you connect this unit to the TV that has “HDAVI Control 2” function with an HDMI cable, you can operate this unit using the following buttons on the TV remote control. [▲ ▼ ◀ ▶], [OK], [RETURN], [EXIT], [SUB MENU] and the colored buttons.

- Refer to the TV operating instructions for operating TV.

## Using the VIERA Link window to operate this unit

By using the TV remote control, you can play discs using the “Playback Disc” (↔ right) and display the Top Menu (for DVD-Video).

**1 Press the button for VIERA Link on the remote control, select the player.**



“Playback Disc”: (↔ right)

“TOP MENU”: Shows a disc top menu (↔ 11) or program list (↔ 13).

“MENU”: Shows a disc menu (↔ 11) or playlist (↔ 13).

**2 Select an item then press [OK].**

## Using the Playback Disc

Using the Playback Disc, you can operate search backward, search forward, stop, etc., with the TV remote control.

Perform steps 1 and 2 of “Using the VIERA Link window to operate this unit” (↔ left), or press [SUB MENU].

The Playback Disc is displayed (↔ right).

- When playing DVD-Video, etc.
  - [▲]: Pause, [▼]: Stop,
  - [◀]: Search backward,
  - [▶]: Search forward,
  - [OK]: Play, [RETURN]: Exit the screen.
- While playing still pictures
  - [▲]: Pause, [▼]: Stop,
  - [◀]: View previous picture,
  - [▶]: View next picture,
  - [OK]: Play, [RETURN]: Exit the screen.



### When you want to leave the TV on and set only this unit to standby mode

Press [⏻] on this unit's remote control and set to standby mode.

### When not using “HDAVI Control”

Set “VIERA Link” in the setup menu to “OFF” (↔ 19, “HDMI” menu).

# Limited Warranty (ONLY FOR U.S.A.)

**Panasonic Consumer Electronics Company,  
Division of Panasonic Corporation of North America**  
One Panasonic Way Secaucus, New Jersey 07094

**Panasonic Puerto Rico, Inc.**  
Ave. 65 de Infantería, Km. 9.5  
San Gabriel Industrial Park, Carolina, Puerto Rico 00985

## Panasonic DVD Player Limited Warranty

### Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Puerto Rico, Inc. (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

Product or Part Name	Parts	Labor
DVD Player	One (1) Year	Ninety (90) Days
Rechargeable Batteries (in exchange for defective item)	Ten (10) Days	Not Applicable

During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. If non-rechargeable batteries are included, they are not warranted. This Limited Warranty only applies to products purchased and serviced in the United States or Puerto Rico. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

### Mail-In Service

For assistance in the continental U.S.A. in obtaining repairs please ship the product to:

**Panasonic Service and Technology Company**  
Customer Servicenter  
Suite B  
4900 George McVay Drive  
McAllen, TX 78503

For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

**IF REPAIR IS NEEDED DURING THE LIMITED WARRANTY PERIOD THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.**

### Limited Warranty Limits And Exclusions

This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as hotel, office, restaurant, or other business), rental use of the product, or service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

**THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.** (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the servicer, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

### ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied Limited Warranty lasts, so the exclusions may not apply to you.

This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the Limited Warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

### PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

### Customer Services Directory

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

<http://www.panasonic.com/consumersupport>

or, contact us via the web at:

<http://www.panasonic.com/contactinfo>

You may also contact us directly at:

1-800-211-PANA (7262),

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

### Accessory Purchases

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

<http://www.pstc.panasonic.com>

or, send your request by E-mail to:

[npcparts@us.panasonic.com](mailto:npcparts@us.panasonic.com)

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday – Friday 9 am to 8 pm, EST.)

Panasonic Service and Technology Company

20421 84th Avenue South, Kent, WA 98032

(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY : 1-866-605-1277

### Service in Puerto Rico

Panasonic Puerto Rico, Inc.

Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Phone (787)750-4300, Fax (787)768-2910

# Limited Warranty (ONLY FOR CANADA)

**Panasonic Canada Inc.**  
5770 Ambler Drive, Mississauga, Ontario L4W 2T3

## PANASONIC PRODUCT – LIMITED WARRANTY EXCHANGE PROGRAM

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to replace the product for a period as stated below from the date of original purchase.

**Panasonic Portable / Clock Radio (without Tape, CD, MD)**  
**Panasonic Audio Product**  
**Panasonic DVD Product**  
**Accessories including rechargeable batteries**

**One (1) year**  
**One (1) year**  
**One (1) year**  
**Ninety (90) days**

### LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

**THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

**IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.**

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

### CONTACT INFORMATION

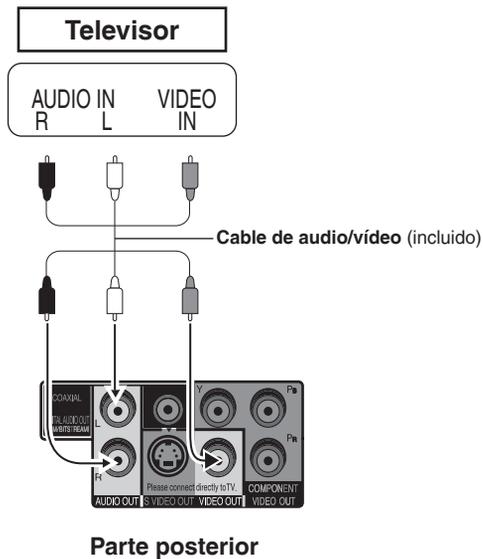
**For product information and operation assistance, please contact:**

Our Customer Care Centre: Telephone #: (905) 624-5505  
1-800 #: 1-800-561-5505  
Fax #: (905) 238-2360  
Email link: "customer support" on [www.panasonic.ca](http://www.panasonic.ca)

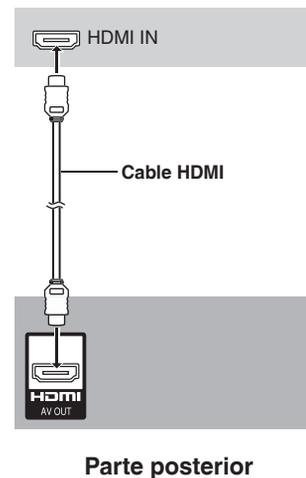
For defective product exchange within the warranty period, please contact the original dealer or our Customer Care Centre.

## Conexiones

### ■ Conexión a un televisor



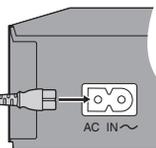
### ■ Cómo disfrutar de una mejor calidad de sonido e imagen (conexión HDMI)



### ■ Conecte el cable de alimentación de CA en último lugar

Cable de alimentación de CA (incluido)

A la toma de corriente  
CA doméstica



## Reproducción básica

1



POWER / I  
(aparato principal)

2



OPEN/CLOSE  
(aparato principal)

Abra la bandeja del disco.

3

Cargue el disco.

4



PLAY  
(aparato principal)

Inicie la reproducción.

### Parada

La posición se memoriza cuando "RESUME STOP" aparece en la pantalla del televisor.

- Pulse (PLAY) para continuar. (Reanudar la reproducción)
- Pulse para cancelar la posición.

### Pausa

- Pulse (PLAY) para reanudar la reproducción.

### Búsqueda

(durante la reproducción)

- Hasta 5 pasos
- Pulse (PLAY) para reanudar la reproducción.
- **VCD** Cámara lenta: En sentido de avance solamente.
- **MPEG4 DivX** Cámara lenta: No funciona.

### Cámara lenta

(durante la pausa)

### Salto

- Pulse para omitir saltar títulos, capítulos, pistas, etc.
- **DVD-VR** También puede saltar hasta los marcadores.

### Cuadro a cuadro

(durante la pausa)

**DVD-VR** **DVD-V**  
**VCD**



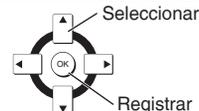
**DVD-VR** **VCD** en sentido de avance solamente

### Vuelta a la pantalla anterior

RETURN



### Selección de elementos en la pantalla



TOP MENU



**DVD-V**

Muestra el menú inicial de un disco.

DIRECT NAVIGATOR

**DVD-VR**

Reproduce los programas.

### Menú del disco

MENU



**DVD-V**

Muestra el menú de un disco.

PLAY LIST

**DVD-VR**

Reproduce una lista de reproducción.

RETURN



**VCD** con control de reproducción  
Muestra el menú de un disco.

### Introducción de números



**DVD-V** **DVD-VR** **CD** **VCD**

P.ej. para seleccionar 12: [ ≥ 10 ] → [1] → [2]

**WMA** **MP3** **JPEG** **MPEG4** **DivX**

P.ej. para seleccionar 123:

[ ≥ 10 ] → [1] → [2] → [3] → [OK]

### Visualización del aparato principal

FL SELECT



Visualización de número

↓  
Visualización de tiempo

### Pantalla de información

**JPEG**

SUBTITLE



# Specifications

**Signal system:** NTSC  
**Operating temperature range:** + 5 to + 35 °C  
**Operating humidity range:** 5 to 90 % RH (no condensation)

## Discs played [8 cm (3 ") or 12 cm (5 ")]:

- (1) DVD (DVD-Video, DivX<sup>\*6,7</sup>)
- (2) DVD-RAM (DVD-VR, JPEG<sup>\*4,7</sup>, MP3<sup>\*2,7</sup>, MPEG4<sup>\*5,7</sup>, DivX<sup>\*6,7</sup>)
- (3) DVD-R (DVD-Video, DVD-VR, JPEG<sup>\*4,7</sup>, MP3<sup>\*2,7</sup>, MPEG4<sup>\*5,7</sup>, DivX<sup>\*6,7</sup>)
- (4) DVD-R DL (DVD-Video)
- (5) DVD-RW (DVD-Video, DVD-VR, JPEG<sup>\*4,7</sup>, MP3<sup>\*2,7</sup>, MPEG4<sup>\*5,7</sup>, DivX<sup>\*6,7</sup>)
- (6) +R/+RW (Video)
- (7) +R DL (Video)
- (8) CD, CD-R/RW (CD(CD-DA), Video CD, SVCD<sup>\*1</sup>, JPEG<sup>\*4,7</sup>, WMA<sup>\*3,7</sup>, MP3<sup>\*2,7</sup>, MPEG4<sup>\*5,7</sup>, DivX<sup>\*6,7</sup>)

## Video output:

Output level: 1 Vp-p (75 Ω)  
Output terminal: Pin jack (1 system)

## S-video output:

Y output level: 1 Vp-p (75 Ω)  
C output level: NTSC 0.286 Vp-p (75 Ω)  
Output terminal: S terminal (1 system)

## Component video output:

[NTSC: 525(480)p/525(480)i]

Y output level: 1 Vp-p (75 Ω)  
P<sub>B</sub> output level: 0.7 Vp-p (75 Ω)  
P<sub>R</sub> output level: 0.7 Vp-p (75 Ω)  
Output terminal:

Pin jack (Y: green, P<sub>B</sub>: blue, P<sub>R</sub>: red) (1 system)

## Audio output:

Output level: 2 Vrms (1 kHz, 0 dB)  
Output terminal: Pin jack  
Number of terminals: 2 channel: 1 system

## Audio performance:

Frequency response:  
• DVD (linear audio):  
4 Hz to 22 kHz (48 kHz sampling)  
4 Hz to 44 kHz (96 kHz sampling)  
• CD-Audio: 4 Hz to 20 kHz  
S/N ratio: 115 dB  
Dynamic range: 100 dB  
Total harmonic distortion: 0.003 %

## Digital audio output:

Coaxial digital output: Pin jack

## HDMI AV output

Type A Connector (19-pin)

## Pickup:

Wave length: 653 nm/790 nm  
Laser power: CLASS 1/CLASS 3A

## Power supply:

**For the U.S.A. and Canada** AC 120 V, 60 Hz  
**For others** AC 110 to 240 V, 50/60 Hz

## Power consumption:

**For the U.S.A. and Canada** 8 W  
**For others** 9 W

## Power consumption in standby mode: approx. 1 W

## Dimensions (W x D x H):

430 mm x 231 mm x 43 mm (excluding protrusions)  
(16 <sup>15</sup>/<sub>16</sub>" x 9 <sup>1</sup>/<sub>16</sub>" x 1 <sup>11</sup>/<sub>16</sub>" (excluding protrusions)  
430 mm x 239 mm x 43 mm (including protrusions)  
(16 <sup>15</sup>/<sub>16</sub>" x 9 <sup>7</sup>/<sub>16</sub>" x 1 <sup>11</sup>/<sub>16</sub>" (including protrusions)

## Mass (Weight):

approx. 2.0 kg (4.4 lb.)

\*1 Conforming to IEC62107

\*2 MPEG-1 Layer 3, MPEG-2 Layer 3

\*3 Windows Media Audio Ver. 9.0 L3

Not compatible with Multiple Bit Rate (MBR)

\*4 Exif Ver 2.1 JPEG Baseline files

Picture resolution: between 160x120 and 6144x4096 pixels (Sub sampling is 4:2:2 or 4:2:0)

\*5 MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders

Conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system

\*6 Official DivX<sup>®</sup> Certified product.

Plays all versions of DivX<sup>®</sup> video (including DivX<sup>®6</sup>) with standard playback of DivX<sup>®</sup> media files.

DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.

\*7 The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 256 groups.

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
“DTS” is a registered trademark of DTS, Inc. and “DTS 2.0 + Digital Out” is a trademark of DTS, Inc.
This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.
U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936.
This product is licensed under the MPEG-4 Visual patent portfolio license for the personal and non-commercial use of a consumer for (i) encoding video in compliance with the MPEG-4 Visual Standard (“MPEG-4 Video”) and/or (ii) decoding MPEG-4 Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed by MPEG LA to provide MPEG-4 Video. No license is granted or shall be implied for any other use. Additional information including that relating to promotional, internal and commercial uses and licensing may be obtained from MPEG LA, LLC. See <a href="http://www.mpegla.com">http://www.mpegla.com</a> .
Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.
This product is protected by certain intellectual property rights of Microsoft Corporation and third parties. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft or an authorized Microsoft subsidiary and third parties.
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.
Official DivX® Certified product. Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files. DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.
HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
HDAVI Control™ is a trademark of Matsushita Electric Industrial Co., Ltd.
EZ Sync™ is a trademark of Matsushita Electric Industrial Co., Ltd.
VIERA Link™ is a trademark of Matsushita Electric Industrial Co., Ltd.

## Main feature index (Reference pages are shown in parentheses.)

Displaying current playback condition (14)

Enjoy advanced surround (14)

Shows a disc top menu (11, 13)  
Shows a program list (11, 13)

Shows On-Screen Menus (16)  
Changes soundtracks (15)  
Changes subtitles (14)

Program/random play (12)

Selects the method of progressive output conversion (15)



Changes the unit's display (11)

Changes picture mode (14)  
Repeat play (14)

Changes play speed (14)

To make the dialogue in movies easier to hear (15)

Skips about one minute forward (15)

Skips back about 10 seconds (14)

Shows a disc menu (11, 13)  
Plays a playlist (11, 13)

Changes angles or rotates (14)

Enter and exit Setup menu (18)

Reduces noise in pictures (15)

Changes the zoom ratio (15)

## CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

**For units with PX printed on the outer packaging**

**THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.**

### For the U.S.A.

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