



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

# Operating Instructions

## DVD/CD PLAYER

Model No. **DVD-S29**

If you have any questions contact

**In the U.S.A.: 1-800-211-PANA(7262)**

**In Canada: 1-800-561-5505**

**For U.S.A.:** The warranty can be found on page 20.  
**For Canada:** The warranty can be found on page 21.  
**La referencia rápida en español se puede encontrar en la página 22, 23.**

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

P PC PX

# Panasonic®

## MULTI-FORMAT PLAYBACK

### **DVD-RAM**

*recorded with DVD video recorders etc.*

Video & Still pictures (JPEG)

### **DVD-Video/Video CD/CD**

*sold on the market*

Movie, Music etc.

### **DVD-R/DVD-RW/+R/+RW**

*recorded and finalized with DVD video recorders etc.*

Video (played as DVD-Video)

### **CD-R/CD-RW**

*recorded and finalized with personal computers etc.*

Music (WMA/MP3) & Still pictures (JPEG)

See page 5 for details.



Getting started

Operations

Reference

RQT7766-P

# 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.

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## Accessories



**(Only for U.S.A.) To order accessories, refer to "Accessory Purchases" on page 20.**

**(For other areas) To order accessories, call the dealer from whom you have made your purchase.**

Use numbers when asking for replacement parts.  
(Product numbers correct as of December 2004. These may be subject to change.)

- 1 Remote control (EUR7631100)
- 1 AC power supply cord (K2C2B2CB00016)  
**U.S.A. and Canada** (RJA0019-2X)  
**Others** (K2KA6BA00004)
- 1 Audio/video cable
- 2 Remote control batteries
- Except U.S.A. and Canada**
- 1 Power plug adaptor (K2DA42E00001)

### Note

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

### 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-S29
SERIAL NUMBER _____	_____



## 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.**

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

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

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION:</b> 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.

<b>CAUTION</b> - LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.	FDA 21 CFR / Class II
<b>CAUTION</b> - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.	IEC60825-1 / Class 3b
<b>ATTENTION</b> - RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.	
<b>ADVARSEL</b> - SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.	
<b>VARO!</b> - AVATTAESSA OLET ALITTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.	
<b>WARNING</b> - SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.	
<b>ADVARSEL</b> - SYNLIG OG USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES. UNNÅ EKSPOSERING FOR STRÅLEN.	
<b>VORSICHT</b> - SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEOFFNET, NICHT DEM STRAHL AUSSETZEN.	
<b>注意</b> - 打开时有可见及不可见激光辐射。避免激光束照射。	
<b>注意</b> - ここを覗くと可視及び不可視レーザー光が出ます。 ビームを見たり、触れたらしないでください。	RQLCA0141

(Inside of product)

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

## CAUTION:

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.

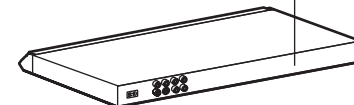
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. 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.

Except for U.S.A. and Canada



## 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.
- 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.

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

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.

# 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 "Customer Services Directory" on page 20.

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

Operations in these instructions are described mainly with the formats. The icons such as **RAM** show the formats.

	<p><b>DVD-RAM</b> <b>RAM</b> <b>JPEG</b></p> <ul style="list-style-type: none"> <li>● <b>RAM</b> Recorded with devices using Version 1.1 of the Video Recording Format (a unified video recording standard), such as DVD video recorders, DVD video cameras, personal computers, etc.</li> <li>● <b>JPEG</b> Recorded using the DCF (Design rule for Camera File system) Standard Version 1.0. To play JPEG files, select "Play as Data Disc" (→ page 15, Other Menu).</li> </ul>
	<p><b>DVD-Video</b> <b>DVD-V</b> Example:   </p> <p>Discs marked with the labels containing the region number "1" or "ALL"</p>
	<p><b>DVD-R (DVD-Video)/DVD-RW (DVD-Video)</b> <b>DVD-V</b></p> <p>Discs recorded and finalized* on DVD video recorders or DVD video cameras</p>
<p>—</p>	<p><b>+R (Video)/+RW (Video)</b> <b>DVD-V</b></p> <p>Discs recorded and finalized* on DVD video recorders or DVD video cameras</p>
	<p><b>Video CD</b> <b>VCD</b></p> <p>Including SVCD (Conforming to IEC62107)</p>
	<p><b>CD</b> <b>CD</b> <b>WMA</b> <b>MP3</b> <b>JPEG</b> <b>VCD</b></p> <ul style="list-style-type: none"> <li>● This unit can play CD-R/RW recorded with the above formats. Close the sessions or finalize* the disc after recording.</li> <li>● <b>WMA</b> <b>MP3</b> <b>JPEG</b> This unit also plays HighMAT discs.</li> </ul>

\*A process that allows play on compatible equipment.

- It may not be possible to play the above discs in all cases due to the type of disc or condition of the recording.

## Discs that cannot be played

DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Divx Video Discs and Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

## 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, benzine, 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.

## Tips for making WMA/MP3 and JPEG discs (For CD-R/CD-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.
- If groups were created away from the root like "002 group" in the illustration below, the eighth one onwards is displayed on the same vertical line in the menu screen.
- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

### 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 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).

Files must have the extension:

- ".WMA" or ".wma"
- ".MP3" or ".mp3"
- ".JPG", ".jpg", ".JPEG" or ".jpeg"

### WMA

- You cannot play WMA files that are copy protected.
- This unit is not compatible with Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).

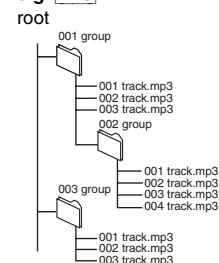
### MP3

- This unit is not compatible with ID3 tags.
- Compatible sampling rate: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1, and 48 kHz

### JPEG

- JPEG files taken on a digital camera that conforms to the DCF Standard Version 1.0 are displayed.
  - Pictures taken using digital camera functions not supported by DCF like automatic picture rotation may not be displayed.
  - Files that have been altered, edited or saved with computer picture editing software may not be displayed.
- 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.

e.g. **MP3**

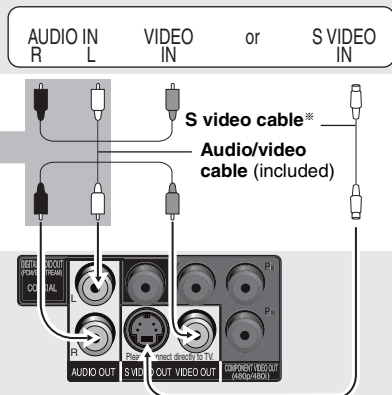


# STEP 1 Connection to a television

- 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.

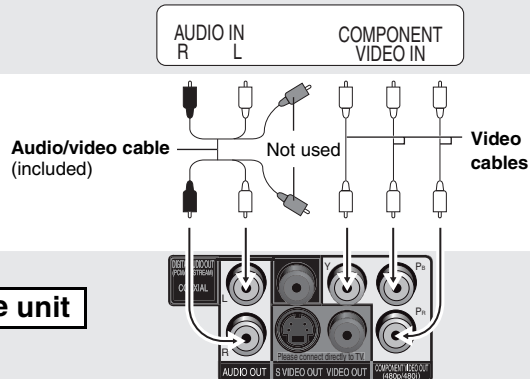
## Television

### With VIDEO IN or S VIDEO IN



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

### With COMPONENT VIDEO IN



## Back of the unit

Select "Darker" from the "Black Level Control" (→ page 16, "Video" tab).

### To enjoy progressive video

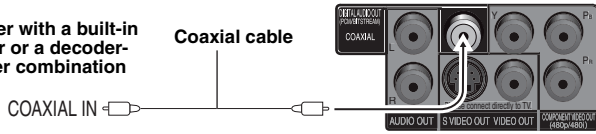
Connect to a progressive output compatible television. Set "Video Output Mode" to "480p", then follow the instructions on the menu screen (→ page 15, Picture Menu).

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

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

## ■ Enjoying multi-channel surround sound

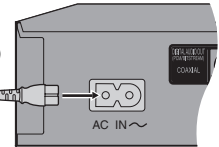
Amplifier with a built-in decoder or a decoder-amplifier combination



Change "PCM Digital Output", "Dolby Digital" and "DTS Digital Surround" (→ page 17, "Audio" tab).

## ■ Connect the AC power supply cord last

AC power supply cord (included)  
To household AC outlet

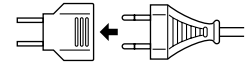


### Conserving power

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.

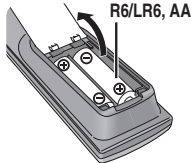
### Except U.S.A. and Canada

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:

- mix old and new batteries.
- use different types at the same time.
- heat or expose to flame.
- take apart or short circuit.
- attempt to recharge alkaline or manganese batteries.
- use batteries if the covering has been peeled off.

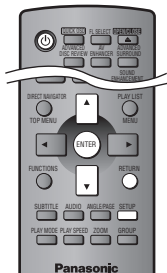
Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

Remove 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 8), 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.

<b>1</b>    Power ON.	<b>2</b>    Shows QUICK SETUP screen.	<b>3</b>    Follow the message and make the settings.	<b>4</b>    Press to finish QUICK SETUP.	<b>5</b>    Press to exit.
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### To change these settings later

Select "QUICK SETUP" (→ page 17, "Others" tab).

## Basic play

### 1 Power ON.



Panasonic

POWER

### 2 Open the disc tray.



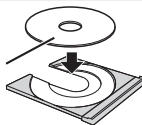
Stop Pause



Remote control sensor

### 3 Load the disc.

- Load double-sided discs so the label for the side you want to play is facing up.
- **RAM** Remove discs from their cartridges before use.



### 4 Start play.



Displaying current playback condition → page 9

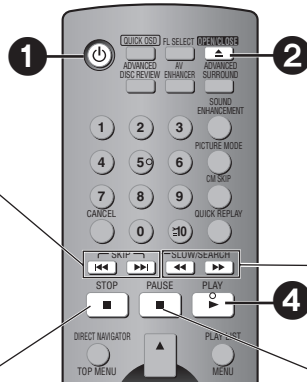


## Skip

- **RAM** Can also skip to the markers.

## Stop

- The position is memorized when "▷" flashes on the display.
- Press **[▶]** (PLAY) to resume.
  - Press **[■]** to clear the position.



## Repeat play

- Select "Repeat" or "A-B Repeat" (→ page 14, Play Menu).

## Search (during play)

## Slow-motion (during pause)

- Up to 5 steps
- Press **[▶]** (PLAY) to restart play.
- **[VCD]** Slow-motion, forward direction only

## Pause

- Press **[▶]** (PLAY) to restart play.

## Standby/on switch (⏻/⏻)

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.

**Except U.S.A. and Canada**

## Standby/on indicator (⏻)

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

- Discs continue to rotate while menus are displayed. Press **[■]** when you finish to preserve the unit's motor and your television screen.
- Total title number may not be displayed properly on +R/+RW.

If you are experiencing problems, refer to troubleshooting guide (→ page 18, 19).



## Group skip

WMA MP3 JPEG



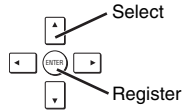
## Frame-by-frame (during pause)

RAM DVD-V VCD



- **VCD** forward direction only

## On-screen item select



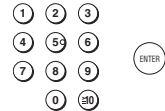
Select

Register

## Return to previous screen



## Enter number



RAM DVD-V VCD CD

e.g. To select 12: [ $\geq 10$ ] → [1] → [2]

WMA MP3 JPEG

e.g. To select 123: [1] → [2] → [3] → [ENTER]

## Disc menu

DIRECT NAVIGATOR



TOP MENU

**DVD-V**

Shows a disc top menu.

**RAM**

Plays the programs (→ page 13).

PLAY LIST



MENU

**DVD-V**

Shows a disc menu.

**RAM**

Plays a play list (→ page 13).

RETURN



**VCD** with playback control

Shows a disc menu.

## Main unit display

FL SELECT



Number display ←→ Time display

## Information screen

JPEG

SUBTITLE



# Convenient functions

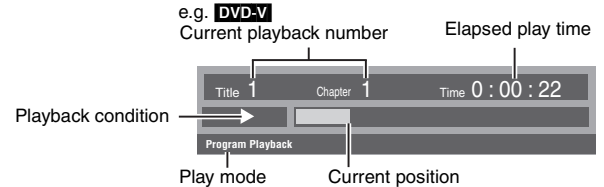
QUICK OSD



QUICK OSD  
(Main unit)

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

Press [QUICK OSD].



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

ADVANCED  
DISC REVIEW



## Reviewing titles/programs to play (Advanced Disc Review)

RAM DVD-V (Except + R/+ RW) (Normal playback only)

- 1 Press [ADVANCED DISC REVIEW].
- 2 Press [▶] (PLAY) when you find a title/program to play.



- You can also review each 10 minutes. Select "Interval Mode" (→ page 16, "Advanced Disc Review" in "Disc" tab).
- This may not work depending on the play position.

SOUND  
ENHANCEMENT



## Enjoying clear sound (Sound Enhancement)

RAM DVD-V VCD CD WMA MP3

You can enjoy clear sound by adding higher frequency signals not recorded on the disc.

Press [SOUND ENHANCEMENT] to select "On".

- This does not work when Advanced Surround (→ page 10) is on.
- This may not work depending on the discs recording.

Functions

Sound Enhancement On

## Convenient functions



AV  
ENHANCER

### Recalling recommended audio/video setting (AV Enhancer)

By pressing just one button the disc type is automatically determined and the best audio and video settings are configured.

Press **[AV ENHANCER]** to select “On”.

- This may not work depending on the discs recording.

✓ Functions

AV Enhancer On


When AV Enhancer is on, you cannot change the individual settings indicated below.

#### Audio settings:

Advanced Surround (→ below), Sound Enhancement (→ page 9),  
Dialogue Enhancer (→ page 15)

#### Video settings:

Picture Mode (→ below)



ADVANCED  
SURROUND

### Enjoying virtual surround (Advanced Surround)

RAM DVD-V VCD (2 or more channels)

Press **[ADVANCED SURROUND]** to select “SP 1”,  
“SP 2”, “HP 1” or “HP 2”.

**SP (Speaker) 1** Natural    **SP 2** Enhanced  
**HP (Headphone) 1** Natural    **HP 2** Enhanced    **Off**

- When using discs recorded with surround sound, sound seems to come from speakers on either side of you.
- When using headphones from the connected equipment, select “HP 1” or “HP 2”.
- 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.

✓ Functions

Advanced Surround SP1



PICTURE MODE

### Picture Mode

RAM DVD-V VCD JPEG

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

- Normal:** Normal images
- Cinema1:** Mellows images and enhances detail in dark scenes.
- Cinema2:** Sharpens images and enhances detail in dark scenes.
- Animation:** Suitable for animation
- Dynamic:** Enhances the contrast for powerful images.

✓ Functions

Picture Mode Normal



PLAY SPEED

### Changing play speed

RAM DVD-V

During play, press **[PLAY SPEED]** to select  
“Fast”, “Normal” or “Slow”.

✓ Functions

Play Speed ◀ x1.4

Normal
✓Fast
Slow

#### Fine adjustments

Press [**◀▶**] while the menu is displayed.  
–from ×0.6 to ×1.4 (in 0.1 units)

- Press [**▶**] (PLAY) to return to the normal play.
- After you change the speed
  - Advanced Surround (→ left) and Sound Enhancement (→ page 9) do not work.
  - Audio output switches to 2 ch.
  - 96 kHz sampling frequency is converted to 48 kHz.
- This may not work depending on the discs recording.



CM SKIP


### Skipping a minute forward

RAM DVD-V (Except +R/+RW)

Convenient when you want to skip commercials etc.

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

- This may not work depending on the play position.



ZOOM

### Zoom

RAM DVD-V VCD

This feature expands the letterbox picture to fit the screen.

Press **[ZOOM]** to select the preset aspect ratio or  
“Auto”. (Just Fit Zoom)

✓ Functions

Just Fit Zoom ×1.00 ▶

#### Fine adjustments (Manual Zoom)

Press [**◀▶**] while the menu is displayed. (Press and hold to alter faster.)  
–from ×1.00 to ×1.60 (in 0.01 units), from ×1.60 to ×2.00 (in 0.02 units)



GROUP

### Starting play from a selected group

WMA MP3 JPEG

A folder on WMA/MP3 and JPEG discs is treated as a “Group”.

- 1 While stopped, press **[GROUP]**.
- 2 Press [**▲ ▼**] or the numbered buttons to select a group and press **[ENTER]**.

✓ Functions

Group Search ÷1

**AUDIO**

**Changing soundtracks** **DVD-V** (with multiple soundtracks) **RAM** **VCD**

Press **[AUDIO]** to select the soundtrack.

**RAM** **VCD**

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

**DVD-V** (Karaoke discs)

Press **[◀▶]** to select "On" or "Off" of vocals. Read the disc's instructions for details.

**Functions**

**Audio** 1

### Signal type/data

LPCM/□□ Digital/DTS/MPEG: Signal type  
kHz (Sampling frequency)/bit/ch (Number of channels)

Example: 3/2 1ch

- 1: Low frequency effect  
(not displayed if there is no signal)
- 0: No surround
- 1: Mono surround
- 2: Stereo surround (left/right)
- 1: Center
- 2: Front left+Front right
- 3: Front left+Front right+Center

**SUBTITLE**

**Changing subtitles** **DVD-V** (with subtitles) **VCD** (SVCD only)

**RAM** (On/Off only with discs that contain subtitle on/off information)

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

Press **[SUBTITLE]** to select the subtitle language.

- On +R/+RW, a subtitle number may be shown for subtitles that are not displayed.

To clear/display the subtitles

Press **[◀▶]** to select "On" or "Off".

**RAM**

Press **[SUBTITLE]** to select "On" or "Off".

- Subtitle on/off information cannot be recorded using Panasonic DVD Recorders.

**Functions**

**Subtitle** ◀ Off ▶

**ANGLE/PAGE**

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

**Still picture rotation** **JPEG**

Press **[ANGLE/PAGE]** to select the angle or rotate the still picture.

e.g. **DVD-V**

**Functions**

**Angle** 1/4

**QUICK REPLAY**

**Quick replay** (Only when the elapsed play time can be displayed)  
(Except +R/+RW)

Press **[QUICK REPLAY]** to skip back a few seconds.

- This may not work depending on the discs recording.



**PLAY MODE**

**Program/Random play** **DVD-V** **VCD** **CD** **WMA** **MP3** **JPEG**

While stopped, press **[PLAY MODE]**.

Program → Random → Off (Normal play)



- Disable HighMAT disc play to use random and program play. Select "Play as Data Disc" in Other Menu (→ page 15).

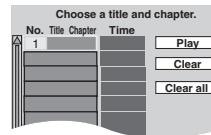
### Program play (up to 32 items)

1 Press the numbered buttons to select the items (→ page 9, Enter number).

Repeat this step to program other items.

2 Press **[▶]** (PLAY).

e.g. **DVD-V**



Selecting all the items (on the disc or in the title or group)

Press **[ENTER]** and **[▲ ▼]** to select "ALL", then press **[ENTER]** again to register.

### Changing the program

Press **[▲ ▼]** to select an item.

–To change an item, repeat step 1.

–To clear an item, press **[CANCEL]** (or select "Clear" and press **[ENTER]**).

- Press **[ANGLE/PAGE]** to skip page by page.

### Clearing the whole program

Select "Clear all" and press **[ENTER]**. The whole program is also cleared when the unit is turned off or the disc tray is opened.

### Random play

1 **DVD-V** **WMA** **MP3** **JPEG** Press the numbered buttons to select a group or a title (→ page 9, Enter number).

2 Press **[▶]** (PLAY).

e.g. **DVD-V**



To exit the program or random mode

Press **[PLAY MODE]** several times while stopped.

# Using navigation menus



## Playing WMA/MP3/JPEG discs WMA MP3 JPEG

You can play JPEG files on DVD-RAM or play HighMAT discs without using the HighMAT function (→ page 15, “Play as Data Disc” in Other Menu).

### Playing items in order (Playback Menu)

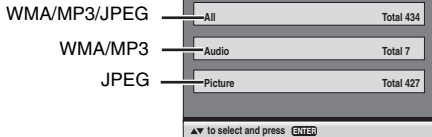
While the menu is displayed

Press [**▲ ▼**] to select

“All”, “Audio” or “Picture”

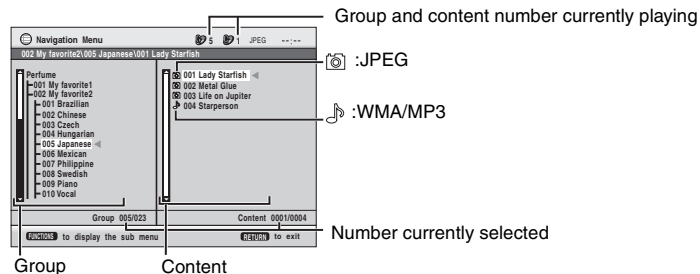
and press [**ENTER**].

- To display/exit the screen, press [**TOP MENU**].



### Playing from the selected item (Navigation Menu)

- 1 Press [**MENU**].
- 2 Press [**▲ ▼ ◀ ▶**] to select the group and press [**ENTER**].
- 3 • To play content in the group in order Press [**ENTER**].  
• To start play from the selected content Press [**▲ ▼**] to select and press [**ENTER**].



- Press [**ANGLE/PAGE**] to skip page by page.
- To listen to WMA/MP3 while showing a JPEG image on the screen Select a JPEG first, and then select WMA/MP3. (The opposite order is not effective.)
- To exit the screen, press [**MENU**].

### ■ Using the submenu

- 1 Press [**MENU**].
- 2 Press [**FUNCTIONS**].
- 3 Press [**▲ ▼**] to select an item and press [**ENTER**].

Multi	Groups and content
List	Content only
Tree	Groups only
Thumbnail	Thumbnail images <span>JPEG</span>
Next group	To the next group
Previous group	To the previous group
All	WMA/MP3 and JPEG
Audio	WMA/MP3 only
Picture	JPEG only
Help display	To switch between guide messages and the elapsed play time indicator
Find	To search by a content or group title (→ see below)

### ■ Searching by a content or group title

- 1 Press [**MENU**].
  - Press [**◀ ▶**] to highlight a group title to search a group, or a content title to search its content.
- 2 Press [**FUNCTIONS**].
- 3 Press [**▲ ▼**] to select “Find” and press [**ENTER**].
- 4 Press [**▲ ▼**] to select a character and press [**ENTER**].
  - Repeat to enter another character.
  - Lower case is also searched.
  - Press [**◀ ▶**] to skip between A, E, I, O and U.
  - Press [**◀**] to erase a character.
  - Erase the asterisk (\*) to search for the titles starting with that character.
- 5 Press [**▶**] to select “Find” and press [**ENTER**].  
The search result screen appears.
- 6 Press [**▲ ▼**] to select the content or group and press [**ENTER**].





Titles appear with CD text playback.

- 1 Press [MENU].
- 2 Press [▲ ▼] to select the track and press [ENTER].

- Press [ANGLE/PAGE] to skip page by page.
- To exit the screen, press [MENU].

e.g. CD text



Press [FUNCTIONS] to switch between guide messages and the elapsed play time indicator.



While the menu is displayed

Press [▲ ▼ ◀ ▶] to select then press [ENTER].



Menu:  
Takes you to the next menu which shows play lists or another menu.



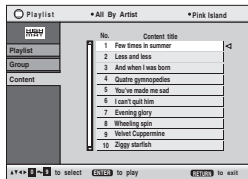
Play list:  
Play starts.

- To return to the menu screen, press [TOP MENU] then press [RETURN] several times.
- To change the menu background, press [FUNCTIONS].  
The background changes to the one recorded on the disc.
- To display/exit the screen, press [TOP MENU].

### Selecting from the list

- 1 During play, press [MENU].
- 2 Press [◀] then [▲ ▼] to switch among “Playlist”, “Group” and “Content” lists.
- 3 Press [▶] then [▲ ▼] to select an item and press [ENTER].

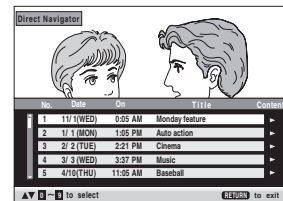
- Press [ANGLE/PAGE] to skip page by page.
- To exit the screen, press [MENU].



- Titles appear only if you have entered them.
- You cannot edit play lists and titles.

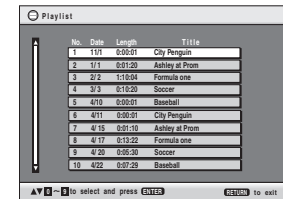
### Playing the programs

- 1 Press [DIRECT NAVIGATOR].
- 2 Press [▲ ▼] or the numbered buttons to select the program.
  - Press [ANGLE/PAGE] to skip page by page.
  - To select a 2-digit number  
e.g. 23: [≥ 10] → [2] → [3]
  - Press [▶] to show the contents of the program.
- 3 Press [ENTER].


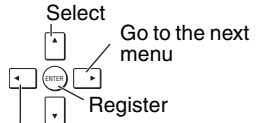




### Playing a play list (Only when the disc contains a play list)

- 1 Press [PLAY LIST].
- 2 Press [▲ ▼] or the numbered buttons to select the play list.
  - Press [ANGLE/PAGE] to skip page by page.
  - To select a 2-digit number  
e.g. 23: [≥ 10] → [2] → [3]
- 3 Press [ENTER].



# Using On-Screen Menus

<p><b>1</b></p> <p style="text-align: center;">FUNCTIONS</p>  <p>Press.</p>	<p><b>2</b></p> <p style="text-align: center;">Select</p>  <p>Return to the previous menu</p> <p>Select the menu.</p>	<p><b>3</b></p> <p style="text-align: center;">Select</p>  <p>Make the settings.</p>	<p><b>4</b></p> <p style="text-align: center;">RETURN</p>  <p>Press to exit.</p>
--	--	--	---

Items shown differ depending on the type of software.

## Main menus

<b>Program, Group, Title</b>	To start from a specific item
<b>Chapter, Track</b>	
<b>Playlist, Content</b>	
<b>Time</b>	<p>To skip incrementally or decrementally* (Time Slip for play only)</p> <ol style="list-style-type: none"> <li>1. Press [ENTER] twice to show Time Slip indicator.</li> <li>2. Press [▲ ▼] to select the time and press [ENTER].</li> </ol> <ul style="list-style-type: none"> <li>● Press and hold [▲ ▼] to alter faster.</li> </ul> <p>To start from a specific time* (Time Search)</p> <p>To change remaining/elapsed time display</p>
<b>Audio</b>	<p>(→ page 11, Changing soundtracks)</p> <p>To display the current bitrate or sampling frequency</p>
<b>Thumbnail</b>	To show thumbnail images
<b>Subtitle</b>	(→ page 11, Changing subtitles)
<b>Marker (VR)</b>	To recall a marker recorded on DVD-Video recorders
<b>Angle</b>	(→ page 11, Angle select)
<b>Rotate Picture</b>	(→ page 11, Still picture rotation)
<b>Slideshow</b>	<p>To turn on/off slideshow</p> <p>To change the slideshow timing (0–30 sec)</p>
<b>Other Settings</b>	(→ right)

\* Except +R/+RW

## Other Settings

- Play Speed** (→ page 10, Changing play speed)
- AV Enhancer** (→ page 10, Recalling recommended audio/video setting)

### ■ Play Menu

(Only when the elapsed play time can be displayed, **JPEG**) The Repeat and Marker functions can be used.)

<b>Repeat</b>	Select an item to be repeated.
<b>A-B Repeat</b>	<p>To repeat a specified section</p> <p>Press [ENTER] at the starting and ending points.</p> <p>Press [ENTER] again to cancel.</p> <ul style="list-style-type: none"> <li>● <b>RAM</b> (still picture part): Does not work.</li> </ul>
<b>Marker</b> Except <b>RAM</b>	<p>To mark up to 5 positions to play again</p> <p>Press [ENTER] (The unit is now ready to accept markers.)</p> <p>To mark a position: [ENTER] (at the desired point)</p> <p>To mark another position: [◀ ▶] to select "*" → [ENTER]</p> <p>To recall a marker: [◀ ▶] → [ENTER]</p> <p>To erase a marker: [◀ ▶] → [CANCEL]</p> <ul style="list-style-type: none"> <li>● This feature doesn't work during program and random play.</li> <li>● Markers you add clear when you open the disc tray or switch the unit to standby.</li> </ul>
<b>Advanced Disc Review</b>	(→ page 9, Reviewing titles/programs to play)

## Picture Menu

<b>Picture Mode</b>	(→ page 10, Picture Mode)
<b>Video Output Mode</b>	480i (interlace) ←→ 480p (progressive) When you select “480p” and a confirmation screen appears, select “Yes” only if connecting to a progressive output compatible television.
<b>Transfer Mode</b>	If you have chosen “480p” (→ above), select the method of conversion for progressive output to suit the type of material. <b>Auto1</b> (normal): Detects 24 frame-per-second film content and appropriately converts it. <b>Auto2</b> : Compatible with 30 frame-per-second film content in addition to 24 frame-per-second film content. <b>Video</b> : Select when using Auto1 and Auto2, and the video content is distorted.

## Audio Menu

<b>Advanced Surround</b>	(→ page 10, Enjoying virtual surround)
<b>Dialogue Enhancer</b>	To make the dialogue in movies easier to hear <b>DVD-V</b> (Dolby Digital, DTS, 3-channel or over, with the dialogue recorded in the center channel) <b>On</b> ←→ <b>Off</b>
<b>Sound Enhancement</b>	(→ page 9, Enjoying clear sound)
<b>Attenuator</b>	With <b>AUDIO OUT</b> connections (→ page 6) Switch on if sound is distorted. <b>On</b> ←→ <b>Off</b>

## Display Menu

<b>Information</b>	Off, Date, Details
<b>Subtitle Position</b>	0 to -60 (in 2 units)
<b>Subtitle Brightness</b>	Auto, 0 to -7
<b>4:3 Aspect</b>	To select how to show images made for 4:3 aspect screens on a 16:9 aspect television <b>Normal</b> : Laterally stretches images. <b>Auto</b> : The standard setting is “Shrink”. However this automatically changes to “Zoom” with a letterbox picture. <b>Shrink</b> : Images appear in the center of the screen. <b>Zoom</b> : Expands to 4:3 aspect ratio.
<b>Just Fit Zoom</b>	(→ page 10, Zoom)
<b>Manual Zoom</b>	(→ page 10, Zoom)
<b>GUI See-through</b>	Off, On, Auto
<b>GUI Brightness</b>	-3 to +3

## Other Menu

<b>Setup</b>	(→ page 16, Changing the player settings)
<b>Play as DVD-VR</b> <b>Play as HighMAT</b> or <b>Play as Data Disc</b>	Select “Play as Data Disc” to play JPEG files on DVD-RAM or to play a HighMAT disc without using the HighMAT function.

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“DTS” and “DTS 2.0 + Digital Out” are trademarks of Digital Theater Systems, Inc.

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, and 4,819,098, licensed for limited viewing uses only.

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

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

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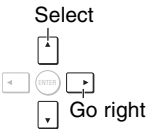
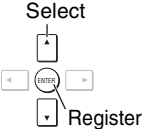
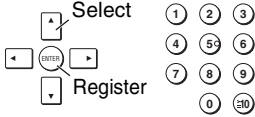



Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.



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.

# Changing the player settings

<b>1</b>    Shows Setup menu.	<b>2</b>    Select the tab.	<b>3</b>    Select the item.	<b>4</b>    Make the settings.	<b>5</b>    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” tab

<b>Audio</b> Choose the audio language.	<u>English</u> French    Spanish    Original* <sup>1</sup> Other**** <sup>2</sup>
<b>Subtitle</b> Choose the subtitle language.	<u>Automatic</u> * <sup>3</sup> English    French    Spanish Other**** <sup>2</sup>
<b>Menus</b> Choose the language for disc menus.	<u>English</u> French    Spanish    Other**** <sup>2</sup> • Changing the menu language from QUICK SETUP also changes this setting.
<b>Advanced Disc Review</b> Select how to review (→ page 9).	<b>Intro Mode:</b> Reviews each title/program. <b>Interval Mode:</b> Reviews each 10 minutes.
<b>Ratings</b> Set a ratings level to limit DVD-Video play. • Follow the on-screen instructions.	Setting ratings (When level 8 is selected) <b>8 No Limit</b> 1 to 7 <b>0 Lock All:</b> To prevent play of discs without ratings levels. 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.

## ■ “Video” tab

<b>TV Aspect</b> Choose the setting to suit your television and preference.	<b>4:3 Pan&amp;Scan:</b> Regular aspect television (4:3) The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc). <b>4:3 Letterbox:</b> Regular aspect television (4:3) Widescreen picture is shown in the letterbox style.  								
<b>TV Type</b> Select to suit the type of television.	<b>16:9: Widescreen television (16:9)</b> <table border="1"> <tr> <td style="background-color: #e0e0e0;"><b>Standard (Direct View TV) LCD TV/Projector Plasma TV</b></td> <td style="background-color: #e0e0e0;"><b>CRT Projector Projection TV</b></td> </tr> </table>	<b>Standard (Direct View TV) LCD TV/Projector Plasma TV</b>	<b>CRT Projector Projection TV</b>						
<b>Standard (Direct View TV) LCD TV/Projector Plasma TV</b>	<b>CRT Projector Projection TV</b>								
<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 style="background-color: #e0e0e0;"><u>0ms</u></td> <td style="background-color: #e0e0e0;">20ms</td> <td style="background-color: #e0e0e0;">40ms</td> <td style="background-color: #e0e0e0;">60ms</td> </tr> <tr> <td style="background-color: #e0e0e0;"><b>80ms</b></td> <td style="background-color: #e0e0e0;"><b>100ms</b></td> <td></td> <td></td> </tr> </table>	<u>0ms</u>	20ms	40ms	60ms	<b>80ms</b>	<b>100ms</b>		
<u>0ms</u>	20ms	40ms	60ms						
<b>80ms</b>	<b>100ms</b>								
<b>Still Mode</b> Specify the type of picture shown when paused.	<b>Automatic</b> <b>Field:</b> The picture is not blurred, but picture quality is lower. <b>Frame:</b> Overall quality is high, but the picture may appear blurred.								
<b>Black Level Control</b> Change the black level of the picture if you connected a television through the COMPONENT VIDEO OUT terminals.	<b>Lighter:</b> When connected through VIDEO OUT or S VIDEO OUT. <b>Darker:</b> When connected through COMPONENT VIDEO OUT.								



## ■ “Audio” tab

<b>PCM Digital 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 48 kHz:</b> When connected to equipment compatible with 44.1 or 48 kHz	
	<b>Up to 96 kHz:</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 connections (→ page 7)	<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.)
	<b>Bitstream</b> <b>PCM</b>	
<b>DTS Digital Surround</b> With COAXIAL connections (→ page 7)		
<b>Dynamic Range Compression</b>	<b>Off</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)

## ■ “Display” tab

<b>Menu Language</b>	<b>English</b>	<b>Français</b>	<b>Español</b>
<b>On-Screen Messages</b>	<b>On</b>	<b>Off</b>	

## ■ “Others” tab

<b>FL Dimmer</b> Changes the brightness of the unit's display.	<b>Bright</b> <b>Dim</b>
	<b>Auto:</b> The display is dimmed, but brightens only when you perform some operations.
<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>
<b>QUICK SETUP</b>	<b>Yes</b> <b>No</b>
<b>Re-initialize Setting</b> This returns all values in the Setup menus to the default settings.	<b>Yes:</b> The password screen is shown if “Ratings” (→ page 16) are set. Please enter the same password. After “INI” on the display disappears, turn the unit off and on again.  <b>No</b>

\*1 The original language designed on the disc is selected.

\*2 Input a code number referring to the table (→ below).

\*3 If the language selected for “Audio” is not available, subtitles appear in that language (If available on the disc).

### Language code list

Abkhazian: 6566	Hausa: 7265	Romanian: 8279
Afar: 6565	Hebrew: 7387	Russian: 8285
Afrikaans: 6570	Hindi: 7273	Samoa: 8377
Albanian: 8381	Hungarian: 7285	Sanskrit: 8365
Ameharic: 6577	Icelandic: 7383	Scots Gaelic: 7168
Arabic: 6582	Indonesian: 7378	Serbian: 8382
Armenian: 7289	Interlingua: 7365	Serbo-Croatian: 8372
Assamese: 6583	Irish: 7165	Shona: 8378
Aymara: 6588	Italian: 7384	Sindhi: 8368
Azerbaijani: 6590	Japanese: 7465	Singhalese: 8373
Bashkir: 6665	Javanese: 7487	Slovak: 8375
Basque: 6985	Kannada: 7578	Slovenian: 8376
Bengali; Bangla: 6678	Kashmiri: 7583	Somali: 8379
Bhutani: 6890	Kazakh: 7575	Spanish: 6983
Bihari: 6672	Kirghiz: 7589	Sundanese: 8385
Breton: 6682	Korean: 7579	Swahili: 8387
Bulgarian: 6671	Kurdish: 7585	Swedish: 8386
Burmese: 7789	Laotian: 7679	Tagalog: 8476
Byelorussian: 6669	Latin: 7665	Tajik: 8471
Cambodian: 7577	Latvian, Lettish: 7686	Tamil: 8465
Catalan: 6765	Lingala: 7678	Tatar: 8484
Chinese: 9072	Lithuanian: 7684	Telugu: 8469
Corsican: 6779	Macedonian: 7775	Thai: 8472
Croatian: 7282	Malagasy: 7771	Tibetan: 6679
Czech: 6783	Malay: 7783	Tigrinya: 8473
Danish: 6865	Malayalam: 7776	Tonga: 8479
Dutch: 7876	Maltese: 7784	Turkish: 8482
English: 6978	Maori: 7773	Turkmen: 8475
Esperanto: 6979	Marathi: 7782	Twì: 8487
Estonian: 6984	Moldavian: 7779	Ukrainian: 8575
Faroese: 7079	Mongolian: 7778	Urdu: 8582
Fiji: 7074	Nauru: 7865	Uzbek: 8590
Finnish: 7073	Nepali: 7869	Vietnamese: 8673
French: 7082	Norwegian: 7879	Volapük: 8679
Frisian: 7089	Oriya: 7982	Welsh: 6789
Galician: 7176	Pashto, Pushto: 8083	Wolof: 8779
Georgian: 7565	Persian: 7065	Xhosa: 8872
German: 6869	Polish: 8076	Yiddish: 7473
Greek: 6976	Portuguese: 8084	Yoruba: 8979
Greenlandic: 7576	Punjabi: 8065	Zulu: 9085
Guarani: 7178	Quechua: 8185	
Gujarati: 7185	Rhaeto-Romance: 8277	

# Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the "Customer Services Directory" on page 20 if you reside in the U.S.A., or refer to the "Product information" on page 4 if you reside in Canada. In other areas, consult your dealer for instructions. (Reference pages are shown in parentheses.)

## Power

<b>No power.</b>	<ul style="list-style-type: none"> <li>Insert the AC power supply cord securely into the household AC outlet. (7)</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. (17)</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. (5)</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. (7)</li> <li>The batteries are depleted: Replace them with new ones. (7)</li> <li>Point the remote control at the remote control sensor and operate. (8)</li> </ul>
<b>No picture or sound.</b>	<ul style="list-style-type: none"> <li>Check the video or audio connection. (6, 7)</li> <li>Check the power or input setting of the connected equipment.</li> <li>Check that the DVD-RAM has something recorded on it.</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, press and hold [QUICK OSD] and [■] on the unit and then also press and hold [▲ OPEN/CLOSE] 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> MP3	<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> </ul>
<b>The program and random play functions do not work.</b> DVD-V	<ul style="list-style-type: none"> <li>These functions do not work with some DVD-Videos.</li> </ul>
<b>Menu doesn't appear.</b> VCD with playback control	<ul style="list-style-type: none"> <li>Press [■] twice and then press [▶] (PLAY).</li> </ul>

<b>Subtitle position is wrong.</b>	<ul style="list-style-type: none"> <li>Adjust the position. ("Subtitle Position" in Display Menu) (15)</li> </ul>
<b>No subtitles.</b>	<ul style="list-style-type: none"> <li>Display the subtitles. (11)</li> </ul>
<b>The subtitles overlap closed captions recorded on discs.</b>	<ul style="list-style-type: none"> <li>Clear the subtitles. (11)</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] or [ADVANCED DISC REVIEW].</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. (6)</li> <li>Make sure that progressive output has not been selected when the connected television is not progressive compatible. Press and hold [CANCEL] until the picture displays correctly. The settings will return to "480i".</li> </ul>
<b>Picture size doesn't fit the screen.</b>	<ul style="list-style-type: none"> <li>Change "TV Aspect" in "Video" tab. (16)</li> <li>Use the television to change the aspect. If your television does not have that function, change "4:3 Aspect" in Display Menu. (15)</li> <li>Change the Zoom setting. (10)</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> </ul>
<b>Menu not displayed correctly.</b>	<ul style="list-style-type: none"> <li>Restore the zoom ratio to <math>\times 1.00</math>. (10)</li> <li>Set "Subtitle Position" in Display Menu to "0". (15)</li> <li>Set "4:3 Aspect" in Display Menu to "Normal". (15)</li> </ul>
<b>Auto zoom function does not work well.</b>	<ul style="list-style-type: none"> <li>Turn off TV's zoom function.</li> <li>Use the other preset aspect ratios or manual adjustment. (10)</li> <li>Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc.</li> </ul>

## Progressive video

<b>There is ghosting when progressive 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 Output Mode" in Picture Menu to "480i". (15)</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 is on, closed captions will not be displayed.</li> </ul>

## Sound incorrect

<b>Sound distorted.</b>	<ul style="list-style-type: none"> <li>Select "Off" in "Advanced Surround". (10)</li> <li>Select "On" in "Attenuator" in Audio Menu if it causes distortion with AUDIO OUT connections. (15)</li> <li>Noise may occur when playing WMA files.</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 Digital Surround" in "Audio" tab. (17)</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 terminal. (7)</li> <li>Some audio effects do not work or have less effect with some discs.</li> <li>Advanced Surround and Sound Enhancement do not work if you have changed the play speed.</li> </ul>
<b>No sound</b>	<ul style="list-style-type: none"> <li>There may be a pause in sound when you change the play speed.</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 (10)</li> <li>PCM Digital Output: Up to 48 kHz (17)</li> <li>Dolby Digital/DTS Digital Surround: PCM (17)</li> </ul> </li> </ul>
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## Unit displays

<b>"noPLAY"</b>	<ul style="list-style-type: none"> <li>You inserted a disc the unit cannot play; insert one it can. (5)</li> <li>You inserted a blank disc.</li> <li>You inserted a disc that has not been finalized. (5)</li> </ul>
<b>"U11"</b>	<ul style="list-style-type: none"> <li>The disc may be dirty. (21)</li> </ul>
<b>"H□□" □□ stands for a number.</b>	<ul style="list-style-type: none"> <li>Trouble may have occurred. The number following "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>
<b>"nodISC"</b>	<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. (8)</li> </ul>

## Television displays

<b>"Ⓞ"</b>	<ul style="list-style-type: none"> <li>The operation is prohibited by the unit or disc.</li> </ul>
<b>"Cannot display group xx, content xx"</b>	<ul style="list-style-type: none"> <li>You are trying to play incompatible group or content. (5)</li> </ul>
<b>"Check the disc"</b>	<ul style="list-style-type: none"> <li>This disc may be dirty. (21)</li> </ul>
<b>"This disc may not be played in your region"</b>	<ul style="list-style-type: none"> <li>You can only play DVD-Video if their region number is "1", "ALL" or multiple region number including "1". (5)</li> </ul>
<b>No on-screen display.</b>	<ul style="list-style-type: none"> <li>Select "On" in "On-Screen Messages" in "Display" tab. (17)</li> </ul>

# 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 Services Company  
Customer Servicer  
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 Servicer 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 Servicer. 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 Servicer; 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.pasc.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 Services 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 U.S.A.)

RQT7766

# Limited Warranty (ONLY FOR CANADA)

Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

## PANASONIC/TECHNICS PRODUCT—LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect, or at its option, replace the product for a period as stated below from the date of original purchase.

**Technics Audio Product  
Panasonic Audio & DVD Product  
Accessories including rechargeable batteries**

**One (1) year, parts and labour  
One (1) year, parts and labour  
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.

### WARRANTY SERVICE

**For product operation and information assistance**, please contact your Dealer or our Customer Care Centre at: Telephone #: (905) 624-5505 Fax #: (905) 238-2360 Web: www.panasonic.ca

**For product repairs**, please contact one of the following:

- Your Dealer who will inform you of an authorized Servicentre nearest you.
- Our Customer Care Centre at (905) 624-5505 or www.panasonic.ca
- A Panasonic Factory Servicentre listed below:

<u>Richmond, British Columbia</u>	<u>Calgary, Alberta</u>	<u>Mississauga, Ontario</u>	<u>Lachine, Québec</u>
Panasonic Canada Inc. 12111 Riverside Way Richmond, BC V6W 1K8 Tel: (604) 278-4211 Fax: (604) 278-5627	Panasonic Canada Inc. 6835-8th St. N. E. Calgary, AB T2E 7H7 Tel: (403) 295-3955 Fax: (403) 274-5493	Panasonic Canada Inc. 5770 Ambler Dr. Mississauga, ON L4W 2T3 Tel: (905) 624-8447 Fax: (905) 238-2418	Panasonic Canada Inc. 3075, rue Louis A. Amos Lachine, QC H8T 1C4 Tel: (514) 633-8684 Fax: (514) 633-8020

### IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.  
Include details of the defect claimed, and proof of date of original purchase.

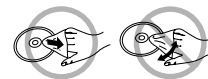
## Maintenance

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

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

### ■ Clean discs

Wipe with a damp cloth and then wipe dry.



## Specifications

- Signal system:** NTSC
- Operating temperature range:** +5 to +35 °C (+41 to +95 °F)
- Operating humidity range:** 5 to 90 % RH (no condensation)
- Discs played [8 cm (3") or 12 cm (5")]:**
- (1) DVD (DVD-Video)
  - (2) DVD-RAM (DVD-VR, JPEG<sup>®4,5</sup>)
  - (3) DVD-R/RW (DVD-Video)
  - (4) +R/RW (Video)
  - (5) CD, CD-R/RW [CD-DA, Video-CD, SVCD<sup>®1</sup>, MP3<sup>®2,5</sup>, WMA<sup>®3,5</sup>, JPEG<sup>®4,5</sup>, HighMAT Level 2 (Audio and Image)]
- Video output:**
- Output level: 1 Vp-p (75 Ω)
- Output connector: Pin jack
- Number of connectors: 1 system
- S-video output:**
- Y output level: 1 Vp-p (75 Ω)
- C output level: 0.286 Vp-p (75 Ω)
- Output connector: S terminal
- Number of connectors: 1 system
- Component video output:** (480p/480i)
- Y output level: 1 Vp-p (75 Ω)
- P<sub>s</sub> output level: 0.7 Vp-p (75 Ω)
- P<sub>r</sub> output level: 0.7 Vp-p (75 Ω)
- Output connector: Pin jack (Y: green, P<sub>s</sub>: blue, P<sub>r</sub>: red)
- Number of connectors: 1 system
- Audio output:**
- Output level: 2 Vrms (1 kHz, 0 dB)
- Output connector: Pin jack
- Number of connectors: 2 channel: 1 system
- Audio performance:**
- (1) Frequency response:
    - DVD (linear audio): 4 Hz–22 kHz (48 kHz sampling)
    - 4 Hz–44 kHz (96 kHz sampling)
    - CD Audio: 4 Hz–20 kHz
  - (2) S/N ratio:
    - CD Audio: 115 dB
  - (3) Dynamic range:
    - DVD (linear audio): 100 dB
    - CD Audio: 98 dB
  - (4) Total harmonic distortion:
    - CD Audio: 0.0025 %
- Digital audio output:**
- Coaxial digital output: Pin jack

- Pickup:**
- Wave length: 662 nm/785 nm
- Laser power: **U.S.A.** CLASS I/CLASS I  
**Others** CLASS 2/CLASS 3A
- Power supply:** **U.S.A. and Canada** AC 120 V, 60 Hz  
**Others** AC 110–240 V, 50/60 Hz
- Power consumption:** 9 W
- Power consumption in standby mode:** **approx. 1 W**
- Dimensions (W×D×H):** 430 mm×248 mm×43 mm  
(16 15/16"×9 12/16"×1 11/16")
- Mass:** approx. 2.14 kg (4.7 lb)

### Note

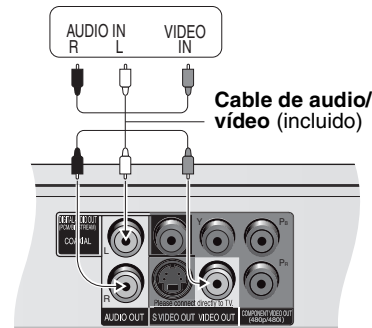
Specifications are subject to change without notice. Mass and dimensions are approximate.

- ※1 Conforming to IEC62107
- ※2 Compatible compression rate: between 32 kbps and 320 kbps
- ※3 Compatible compression rate: between 48 kbps and 320 kbps
- ※4 Exif Ver 2.1 JPEG Baseline files  
Picture resolution: between 320×240 and 6144×4096 pixels (sub sampling is 4:2:2 or 4:2:0)
- ※5 The total combined maximum number of recognizable audio and picture contents and groups: 4000 audio and picture contents and 400 groups.

## Referencia rápida en español

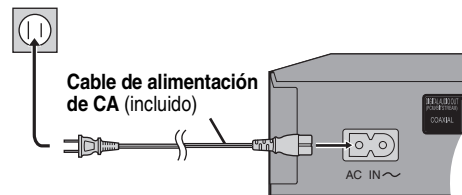
### Conexión a un televisor

#### Televisor



#### Parte posterior del aparato






#### A una toma de CA









- Conecte el cable de alimentación de CA el último.

## PREPARACIÓN RÁPIDA

Encienda el televisor y seleccione la entrada de vídeo apropiada en el mismo.

-  Encienda.
-  Muestra la pantalla QUICK SETUP.
-  Pulse [**▲ ▼**] para seleccionar “Español” y pulse [ENTER]. Siga el mensaje y haga los ajustes.
-  Pulse para terminar PREPARACIÓN RÁPIDA.
-  Pulse para salir.

## Reproducción básica

-   POWER (Aparato principal) Encienda.
-   OPEN/CLOSE (Aparato principal) Abra la bandeja del disco.
-  Introduzca el disco.
-  (Aparato principal) Inicie la reproducción.

### Parada



La posición se memoriza cuando “▷” parpadea en el visualizador.  
 • Pulse [**▶**] (PLAY) para proseguir.  
 • Pulse [**■**] para borrar la posición.

### Pausa



• Pulse [**▶**] (PLAY) para reiniciar la reproducción.

### Búsqueda

(durante la reproducción)  
**Cámara lenta**  
 (durante la pausa)



- Hasta 5 pasos
- Pulse [**▶**] (PLAY) para reiniciar la reproducción.
- **VCD** Cámara lenta, en sentido de avance solamente

### Salto



- **RAM** También puede saltar a marcadores.

### Salto de grupo

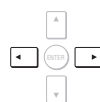
**WMA MP3 JPEG**



### Cuadro a cuadro

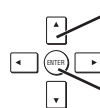
(durante la pausa)

**RAM DVD-V VCD**



- **VCD** Sentido de avance solamente

### Selección de elemento en pantalla

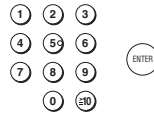


Seleccionar  
 Registrar

### Vuelta a la pantalla anterior



### Introducción de números



**RAM DVD-V VCD CD**

Ej.: Para seleccionar 12:  
 [≧10] → [1] → [2]

**WMA MP3 JPEG**

Ej.: Para seleccionar 123:  
 [1] → [2] → [3] → [ENTER]

### Menú del disco



DIRECT NAVIGATOR

**DVD-V**

Muestra un menú inicial de disco

**RAM**

Reproduce los programas.



PLAY LIST

**DVD-V**

Muestra un menú del disco

**RAM**

Reproduce una lista de reproducción.



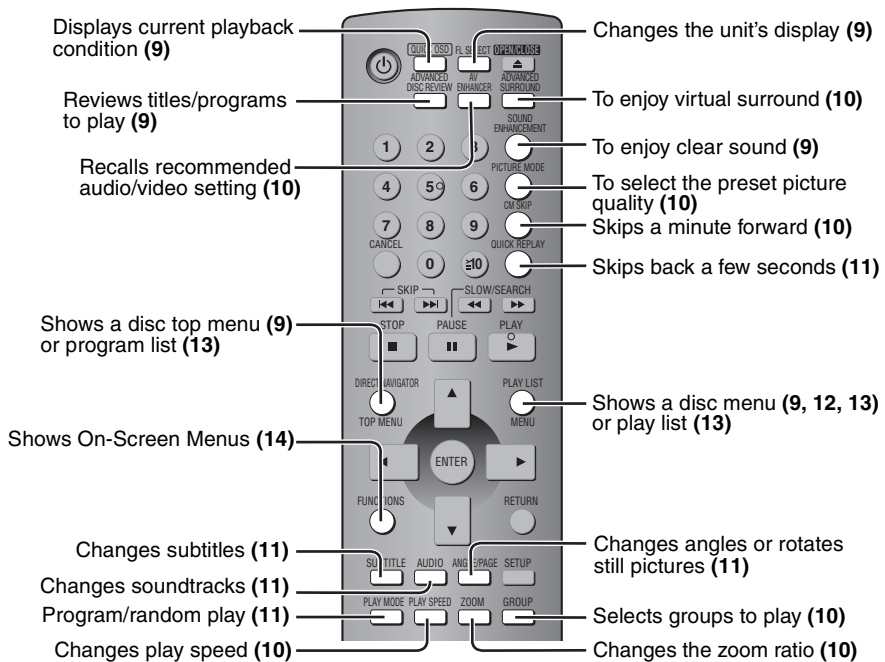
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# Main feature index (Reference pages are shown in parentheses.)



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As an ENERGY STAR® Partner,\* Panasonic has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

\*For Canada only: The word "Participant" is used in place of the word "Partner".

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