Panasonic®

Operating Instructions
Portable DVD/CD Player

Model No. **DVD-LS91**

Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.
Before connecting, operating or adjusting this product, please read the instructions completely.
Please keep this manual for future reference.

MULTI-FORMAT PLAYBACK   **See page 6 for details.**

Region number

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

Region	Number
For the United Kingdom	**2**
For Australia and N.Z.	**4**

Example: For the United Kingdom

Unless otherwise indicated, illustrations in these operating instructions are of the models for the United Kingdom.

Note **"EB" on the packaging indicates the United Kingdom.**

RQT8248-B

Caution for AC Mains Lead

(For United Kingdom)
("EB" area code model only)

For your safety, please read the following text carefully.
This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⬧ or the BSI mark ⬦ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

> **CAUTION!**
> IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use
Remove the connector cover.

How to replace the fuse
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

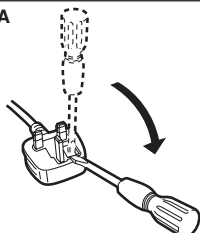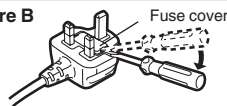1. Open the fuse cover with a screwdriver.

Figure A

Figure B — Fuse cover

2. Replace the fuse and close or attach the fuse cover.
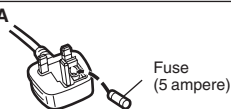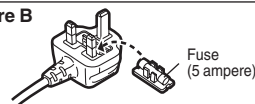

Figure A — Fuse (5 ampere)

Figure B — Fuse (5 ampere)

> **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.

AC adaptor
This AC adaptor operates on AC between 100 V and 240 V.
But
● Obtain a suitable plug adaptor if the plug does not fit the AC mains socket.

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

Accessories

Use numbers indicated in parentheses when asking for replacement parts.

(Product numbers correct as of January 2006. These may be subject to change.)

☐ **1 Audio/video cable** (K2KA6CB00003)

☐ **1 AC adaptor** (RFEA213W)

☐ **1 AC mains lead**

For the United Kingdom (K2CT3CA00004)
For Australia and N.Z. (K2CJ2DA00008)

● For use with this unit only. Do not use it with other equipment.
Also, do not use cords for other equipment with this unit.

☐ **1 Car DC Adaptor** (RFEC202M-M)

☐ **1 Rechargeable battery pack**(CGR-H701)
For replacement: Available from Panasonic dealers: (CGR-H701, CGR-H713)

☐ **1 Headrest Mounting Bracket** (RXQ1405A)

☐ **1 Monitor holder** (RGQ0442-K)

For the United Kingdom and Republic of Ireland

■ Sales and Support Information

Customer Care Centre
● For customers within the UK: 08705 357357
● For customers within the Republic of Ireland: 01 289 8333
● Visit our website for product information
  E-mail: customer.care@panasonic.co.uk

Direct Sales at Panasonic UK
● Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday - Thursday 9:00am – 5:30pm, Friday 9:30am – 5:30pm (Excluding public holidays).
● Or go on line through our Internet Accessory ordering application at www.panasonic.co.uk.
● Most major credit and debit cards accepted.
● All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
● It couldn't be simpler!
● Also available through our Internet is direct shopping for a wide range of finished products, take a browse on our website for further details.

Interested in purchasing an extended guarantee?
Please call 0870 240 6284 or visit our website www.panasonic.co.uk/guarantee.

Do not rest the unit on your lap for a long time while using it. The unit can become hot and cause burns.

Table of contents

CAUTION!
DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED.

REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

WARNING:
The driver must not operate this unit while the vehicle is moving.
Do not operate this unit where it can be viewed by the driver.
Driver operation or viewing of this unit while the vehicle is moving will cause distraction which may result in serious accident and personal injury or property damage.

To prevent damage
Avoid the following:
● Spraying flammable insecticides near the unit.
● Pressing the LCD.
● Touching the lens and other parts of the laser pickup.
Do not use the unit in the following places:
● Sandy places such as beaches.
● On top of cushions, sofas, or hot equipment such as amplifiers.
Do not leave in an unventilated automobile or exposed to direct sunlight and high temperatures.

Accessories/Table of contents

Precautions

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) Protect the AC mains lead from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10) Only use attachments/accessories specified by the manufacturer.
11) 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.
12) Unplug this apparatus during lightning storms or when unused for long periods of time.
13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as AC mains lead 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.

Precautions for Listening with the Headphones or Earphones

● Do not play your headphones or earphones at a high volume. Hearing experts advise against continuous extended play.
● If you experience a ringing in your ears, reduce volume or discontinue use.
● Do not use while operating a motorized vehicle. It may create a traffic hazard and is illegal in many areas.
● You should use extreme caution or temporarily discontinue use in potentially hazardous situations.
● Even if your headphones or earphones are the open-air type designed to let you hear outside sounds, don't turn up the volume so high that you can't hear what's around you.

Batteries

1. Battery pack (Lithium ion battery pack)
● Use this unit to recharge the battery pack.
● Do not use the battery pack with equipment other than the specified player.
● Do not use the player outside if it is snowing or raining. (The battery pack is not waterproof.)
● Do not get dirt, sand, liquids, or other foreign matter on the terminals.
● Do not touch the plug terminals ($+$ and $-$) with metal objects.
● Do not disassemble, remodel, heat or throw into fire.
● Do not store the battery pack in temperature over 60 $^\circ$C.

If any electrolyte should come into contact with your hands or clothes, wash it off thoroughly with water.
If any electrolyte should come into contact with your eyes, never rub the eyes.
Rinse eyes thoroughly with water, and then consult a doctor.

2. Disposing of the batteries
Check and follow your local regulations before disposal.

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.**

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.

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.

Marking sign is located on bottom of the unit.

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

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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 http://www.mpegla.com.

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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.

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Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files.
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-If you see this symbol-

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)
This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.
Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.
For business users in the European Union
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.
Information on Disposal in other Countries outside the European Union
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.

Discs that can be played

Commercial discs

Disc Logo	Indicated in these instructions by	Remarks
DVD-Video DVD DVD VIDEO VIDEO	**DVD-V**	High quality movie and music discs
Video CD COMPACT disc DIGITAL VIDEO / COMPACT disc SUPER VIDEO	**VCD**	Music discs with video Including SVCD (Conforming to IEC62107)
CD COMPACT disc DIGITAL AUDIO / COMPACT disc DIGITAL AUDIO TEXT	**CD**	Music discs

■ Discs that cannot be played

DVD-Audio, Version 1.0 of DVD-RW, DVD-ROM, CD-ROM, CDV, CD-G, SACD and Photo CD, DVD-RAM that cannot be removed from their cartridges, 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.

Recorded disc (√: Available ×: Not available)

Disc Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.					Necessity of finalize[4]
	DVD-VR[2]	**DVD-V**[3]	**WMA**	**MP3**	**JPEG**	**MPEG4**	**DivX**	
DVD-RAM DVD R A M RAM4.7	√	—	×	√	√	√	√	**Not Necessary**
DVD-R/RW DVD R R4.7 / DVD R W	√	√	×	√	√	√	√	**Necessary**
DVD-R DL DVD R DL	√	√	×	×	×	×	×	**Necessary**
+R/+RW —	×	(√)	×	×	×	×	×	**Necessary**
+R DL —	×	(√)	×	×	×	×	×	**Necessary**
CD-R/RW[1] —	—	—	√	√	√	√	√	**Necessary**[5]

● 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 7, Tips for making data discs).

[1] This unit can play CD-R/RW recorded with CD-DA or Video CD format. (**WMA** **MP3** **JPEG** This unit also plays HighMAT discs.)

[2] Discs recorded on DVD video recorders, DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).
For DVD-R DL: Discs recorded on DVD video recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).

[3] Discs recorded on DVD video recorders or DVD video cameras using DVD-Video Format.
For +R/+RW and +R DL: Discs recorded using a format different from DVD-Video Format, therefore some functions cannot be used.

[4] 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.

[5] Closing the session will also work.

Tips for making data discs

Format	Disc	Extension	Reference
WMA	CD-R/RW	".WMA" ".wma"	● Compatible compression rate: between 48 kbps and 320 kbps ● 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	DVD-RAM DVD-R/RW CD-R/RW	".MP3" ".mp3"	● Sampling frequency: DVD-RAM, DVD-R/RW : 11.02, 12, 22.05, 24, 44.1 and 48 kHz CD-R/RW : 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48 kHz ● Compatible compression rate: between 32 kbps and 320 kbps ● This unit is not compatible with ID3 tags.
JPEG	DVD-RAM DVD-R/RW CD-R/RW	".JPG" ".jpg" ".JPEG" ".jpeg"	● JPEG files taken on a digital camera that conform 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. ● 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.
MPEG4	DVD-RAM DVD-R/RW CD-R/RW	".ASF" ".asf"	● 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. ● The recording date may differ from that of the actual date.
DivX	DVD-RAM DVD-R/RW CD-R/RW	".DIVX" ".divx" ".AVI" ".avi"	● 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. ● GMC (Global Motion Compensation) is not supported. ● DivX files greater than 2GB or have no index may not play properly on this unit. ● This unit supports all resolutions up to maximum of 720 ×480 (NTSC)/720 ×576 (PAL). ● You can select up to 8 types of audio and subtitles on this unit.

● If groups were created away from the root like "002 group" in the illustration below, the eighth one and 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 contents 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).

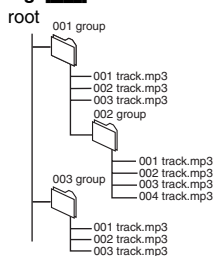**DVD-RAM**
● Discs must conform to UDF 2.0.

DVD-R/RW
● Discs must conform to UDF bridge (UDF 1.02/ISO9660).
● This unit is not compatible with multi-session. Only the default session is played.

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.

e.g. **MP3**
root
001 group
└ 001 track.mp3
└ 002 track.mp3
└ 003 track.mp3
002 group
└ 001 track.mp3
└ 002 track.mp3
└ 003 track.mp3
└ 004 track.mp3
003 group
└ 001 track.mp3
└ 002 track.mp3
└ 003 track.mp3

Discs that can be played

Preparations

FOR THE UNITED KINGDOM ONLY
READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 2 BEFORE CONNECTION.
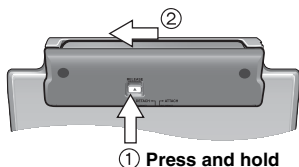
❶ Attaching the battery (When the unit is off)

An optional battery pack (CGR-H713) is also available. The procedure for attaching and detaching is the same.

Bottom side of this unit

Clicks into place
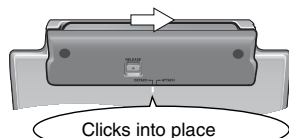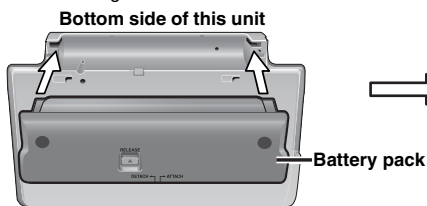
Check to make sure it is securely fastened.

Battery pack

Detaching
- Turn the unit off before detaching the battery pack.

① **Press and hold**

When not using for long periods of time

- Remove the battery pack (➜ left).
  (Even when the unit is turned off, there is a small amount of voltage running through the unit, and this may result in a malfunction.)
- Recharge the battery for re-use.

❷ Recharging the battery (When the unit is off)

AC mains lead (included)

To household mains socket

① DC IN 12 V ⊖─ⓒ─⊕

DC IN

AC adaptor (included)

②

③
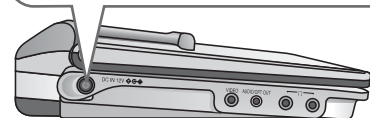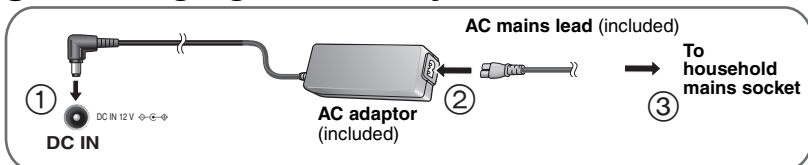
- You can also use this unit without charging while connecting the AC adaptor and the AC mains lead.
- You can also use this unit without charging while connecting Car DC Adaptor (➜ page 19, Connecting the included Car DC Adaptor).

CHG

ⓒ

CHG | **ⓒ**
Started | **Finished**

[ⓒ] goes out ➜ lights
[CHG] lights ➜ goes out
Recharging time :
Approx. 4 hours (CGR-H701, included)
Approx. 10 hours (CGR-H713, optional)
When finished, disconnect the AC adaptor and the AC mains lead.

To conserve power
This unit consumes 0.3 W of power even when turned off. When the unit is not going to be used for a long time, disconnect the AC mains lead from the household mains socket.
The unit is in the standby condition (the [ⓒ] indicator lights) when the AC mains lead is connected. The primary circuit is always "live" as long as the AC adaptor is connected to an electrical outlet.
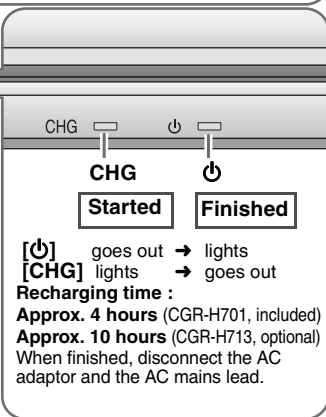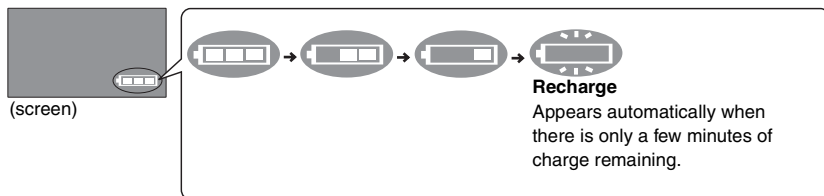
Approximate play times (Hours)

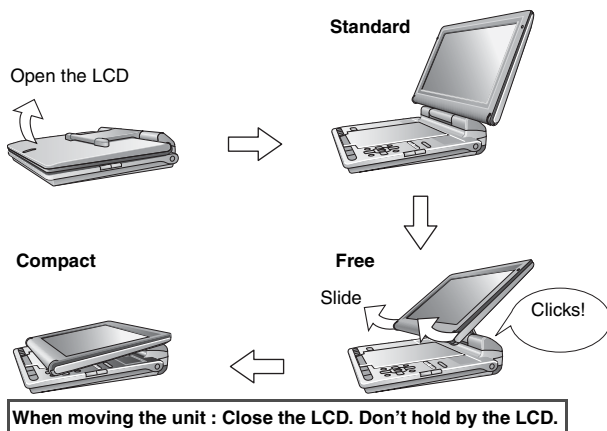|	**Play** (at room temperature using headphones)			
Battery pack	**LCD brightness level**			**LCD Off**
	−5	0	5 (factory preset)	
CGR-H701	3	2	1.5	5
CGR-H713 (optional)	10	7	5	15

● The times indicated above may differ depending on use.
● To change the LCD brightness (➔ page 12, Adjusting the picture quality on the LCD).

Checking the remaining battery charge

When the unit is on (➔ page 10) and powered by the battery pack
Press [DISPLAY] to check on the LCD (Displays for a few seconds).

(screen)

Recharge
Appears automatically when there is only a few minutes of charge remaining.

➌ Adjusting the LCD angle

Standard

Open the LCD

Compact   **Free**

Slide

Clicks!

When moving the unit : Close the LCD. Don't hold by the LCD.

Playing discs

1 Open the lid.

OPEN

Headphone terminals [⌒]
φ 3.5 mm stereo mini jack

2 Insert a disc and close the lid.

Click into place

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

● **DVD-RAM:** Remove discs from their cartridges before use.
● Some discs start to play automatically when the unit is on.

3 Press and hold.

ON

The unit turns on and play begins.

4 Adjust the volume.
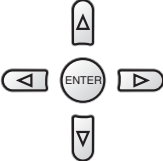
VOL   **ı**   **+**

When using headphones, turn down the volume before connection.

- To play **JPEG**, **MP3**, **MPEG4** or **DivX** on DVD-RAM that contain both **DVD-VR** and another format (e.g. **JPEG**), select "Play as Data Disc" (➔ page 23, Other Menu).
- While stopped, the unit automatically turns off once 15 minutes (after approximately 5 minutes when using the battery pack) have elapsed.
- Discs continue to rotate while menus are displayed. Press **[■, –OFF]** when you finish to preserve the unit's motor.
- Total title number may not be displayed properly on +R/+RW.
- If you are experiencing problems, refer to troubleshooting guide (➔ page 28).
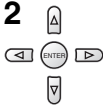
Operations

ON ▶	**Turn unit on/play**	When the unit is off: Press and hold and the power comes on and play begins. When the unit is on: Press and play begins.
❚❚	**Pause**	Press **[▶, ON]** to restart play.
–OFF ■	**Stop**	The position is memorized when "Press PLAY to resume play" appears on the screen. ● Press **[▶, ON]** to resume. **(Resume play)** Opening the disc lid or pressing **[■, –OFF]** while "Press PLAY to resume play" appears on the screen cancels the memorized position.
	Turn unit off	Press and hold until "OFF" is displayed.

Playing discs
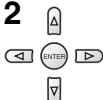
		Skip	Press **[|◀◀, ▶▶|]**. **DVD-VR** Can also skip to the markers.
		Search	Press and hold **[|◀◀, ▶▶|]** (up to 5 steps).
|◀◀ ▶▶|	**Slow play**	Press and hold **[|◀◀, ▶▶|]** (up to 5 steps) while paused. Press **[▶, ON]** to return to normal play. **VCD** **[▶▶|]** only ● **MPEG4** **DivX** : Does not work.
TOP MENU	**Top menu**	**DVD-V**	
	Playing programs	**DVD-VR** (→ page 18)	
	Playback menu	**WMA** **MP3** **JPEG** **MPEG4** **DivX** Playing data discs (→ page 16)	
MENU	**Menu**	**DVD-V**	
	Playing playlists	**DVD-VR** (→ page 18)	
	Navigation menu	**WMA** **MP3** **JPEG** **MPEG4** **DivX** Playing data discs (→ page 16)	
RETURN	**Return**	Returns to the previous screen. **VCD** (with playback control) Returns to the menu.	
	Menu operation	Press **[▲ ▼ ◀ ▶]** to select an item and press **[ENTER]** to confirm.	
	Number Select	**VCD** (with playback control) ①While the disc menu is displayed, press [DISPLAY] to display On-Screen Menus. ②Press [▲ ▼] to select "Number Select". ③Press [▶] then [▲ ▼] to enter number. ●Press and hold **[▲ ▼]** to alter faster. ④Press [ENTER].	
	Frame-by-frame	**DVD-VR** **DVD-V** **VCD** While paused, press **[◀ ▶]**. **VCD** **[▶]** only	
	Group skip	**WMA** **MP3** **JPEG** **MPEG4** **DivX** Press **[▲ ▼]**. ● Does not work while paused.	

Playing discs

Useful functions

Selecting how to show 4:3 aspect pictures on the LCD

1 MONITOR MODE
Press once.

2 ⊲ (ENTER) ⊳

Press [▲ ▼] to select the monitor mode.

NORMAL: Normal   **FULL:** Stretched horizontally
OFF: No picture

- If you are not using the LCD on this unit, select "OFF" to conserve power. (The **[⏻]** indicator flashes)
- The LCD turns off automatically if you close it.
- **To exit the screen :** Press **[RETURN]**.

Adjusting the picture quality on the LCD

1 MONITOR MODE
Press twice.

2 ⊲ (ENTER) ⊳

Press [▲ ▼] to select the item, and [◄ ►] to change the setting.

BRIGHT: Dims or brightens the picture (−5 to 5)
COLOUR: Adjusts the shade of the picture's color (−5 to 5)
- **To exit the screen :** Press **[RETURN]**.

Skipping 30 seconds forward (MANUAL SKIP) DVD-VR DVD-V *(Except +R/+RW)*

MANUAL SKIP

Convenient when you want to skip commercials etc.
During play, press [MANUAL SKIP].
- This may not work depending on the play position.
- DVD-VR Does not work:
 -with still picture part.
 -when playing a playlist.

Repeat play (Only when the elapsed play time can be displayed. JPEG: you can use even if there is no elapsed time display.)

REPEAT

Press several times to select the content to be repeated.
- **To exit the screen :** Press **[RETURN]**.

> ✉ **Menu**
> **Repeat   Off**

To repeat a specified section (A-B Repeat)
Except still picture part

1 DISPLAY
During play, press once.

2 ⊲ (ENTER) ⊳

① **Press [▲ ▼] to select "Other Settings".**
② **Press [►] then [▲ ▼] to select "Play Menu".**
③ **Press [►] then [▲ ▼] to select "A-B Repeat".**
④ **Press [ENTER] at the starting and ending points.**

> ✉ **Menu**
> **A-B Repeat ✱✱**

- Press **[ENTER]** again to cancel.
- **To exit the screen :** Press **[RETURN]**.

Reviewing titles/programs to play (Advanced Disc Review)
`DVD-VR` `DVD-V` *(Except +R/+RW)*

1 DISPLAY

Press once.

2

① **Press [▲▼] to select "Other Settings".**
② **Press [▶] then [▲▼] to select "Play Menu".**
③ **Press [▶] then [▲▼] to select "Advanced Disc Review".**
④ **Press [ENTER].**
 Reviews each title/program.

Title 1	Chapter 1	Time 0 : 00 : 22

⑤ **Press [▶, ON] when you find a title/program to play.**

- You can also review each 10 minutes. Select "Interval Mode" (➔ page 24, "Advanced Disc Review" in "Disc" tab).
- This may not work depending on the play position.
- `DVD-VR` Does not work:
  -with still picture part.
  -when playing a playlist.
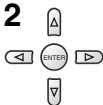- **To exit the screen :** Press **[RETURN]**.

Changing play speed `DVD-VR` `DVD-V`

1 DISPLAY

During play, press once.

2

① **Press [▲▼] to select "Other Settings".**
② **Press [▶] then [▲▼] to select "Play Speed".**
③ **Press [ENTER] and [▲▼] to select "Normal" or "×0.6" to "×1.4" (in 0.1 units).**
④ **Press [ENTER].**
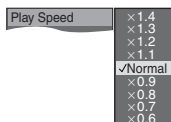
Play Speed	
	×1.4
	×1.3
	×1.2
	×1.1
	√Normal
	×0.9
	×0.8
	×0.7
	×0.6

- Press **[▶, ON]** to return to normal play.
- After you change the speed
  – H.Bass (➔ page 15), Advanced Surround (➔ below), Multi Re-master (➔ page 15) and Sound Enhancement (➔ page 23, Audio Menu) do not work.
  – Digital output switches to PCM.
  – 96 kHz sampling frequency is converted to 48 kHz.
- This may not work depending on the disc's recording.
- **To exit the screen :** Press **[RETURN]**.
- This function is effective only when "Monitor Priority" is set to "Video Output" (➔ page 24, "Video" tab).

Enjoying virtual surround (Advanced Surround)
Motion picture with 2 or more channels

◯EQ
MODE

Press to select "SP 1 Natural", "SP 2 Enhanced", "HP 1 Natural" or "HP 2 Enhanced".

A surround sound effect can be made using 2 speakers (on other equipment).

- When **using headphones**, press to select "HP 1 Natural" or "HP 2 Enhanced".
- 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.
- This does not work when H.Bass (➔ page 15) is on.
- Do not use in combination with surround effects on other equipment.

Useful functions

Useful functions

Changing soundtracks *Motion pictures*

1 DISPLAY

Press once.

2 △ ◁ (ENTER) ▷ ▽
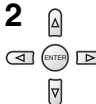
① **Press [▲▼] to select "Audio".**
② **Press [▶] then [▲▼] to select the soundtrack.**
③ **Press [ENTER].**
DVD-VR VCD DivX
"L", "R" or "L R" can be selected.
DVD-V (Karaoke discs)
①Press [▲▼] to select "Karaoke".
②Press [▶] then [▲▼] to select "On" or "Off" for vocals. Read the disc's instructions for details.
● **To exit the screen:** Press **[RETURN].**

☑ **Menu**
Audio   1

Signal type/data
LPCM/⊡⊡ Digital/DTS/MP3/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

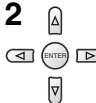● DivX It may take some time for play to start if you change the audio on a DivX video disc.

Changing subtitles *Discs with subtitles*

1 DISPLAY

Press once.

2 △ ◁ (ENTER) ▷ ▽

DVD-VR DVD-V VCD DivX
① **Press [▲▼] to select "Subtitle".**
② **Press [▶] then [▲▼] to select "Off" or "On" and the subtitle language.**
③ **Press [ENTER].**
● On ＋R/＋RW, a subtitle number may be shown for subtitles that are not displayed.
● DVD-VR (with subtitle on/off information)
-On or Off only can be selected.
-Subtitle on/off information cannot be recorded using Panasonic DVD Recorders.
● **To exit the screen :** Press **[RETURN].**

☑ **Menu**
Subtitle   Off

Angle select DVD-V *with multiple angles* /*Still picture rotation* JPEG

1 DISPLAY

Press once.
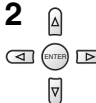
2 △ ◁ (ENTER) ▷ ▽

① **Press [▲▼] to select "Angle" or "Rotate Picture".**
② **Press [▶] then [▲▼] to select the angle or rotate the still picture.**
③ **Press [ENTER].**
● **To exit the screen :** Press **[RETURN].**

e.g. DVD-V

☑ **Menu**
Angle   1/4

Displaying current playback condition (Quick OSD)

DISPLAY

Press twice.

■ **Basics**   e.g. DVD-V
Current playback number   Elapsed play time

| Title 1 | Chapter 1 | Time 0 : 00 : 22 |

Playback condition

Current position
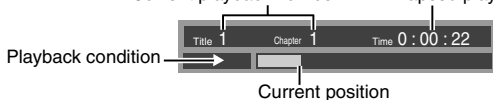
DISPLAY

Press three times.

■ **Details**   e.g. DVD-V
See above for changing soundtracks
See above for changing subtitles
See above, Angle select for changing angles
Aspect of current playback title

●Details-DVD-Video
Audio   1 ---DTS 3/2.1ch
Subtitle
Angle   1/1
Source Aspect 4:3
Title Total Time 0:54:28

Total play time of current playback title

● MPEG4 DivX Video and audio information is not displayed during search.
To exit the screen: Press **[RETURN].**

Useful functions

Enjoying higher quality audio and video

Reproducing more natural audio (Multi Re-master)

- **DVD-VR** **DVD-V** *(recorded with 48 kHz only)* **VCD** **CD**: This feature gives you a more natural sound by adding higher frequency signals not recorded on the disc, for example, playing DVD-Video recorded with 48 kHz at 96 kHz.
- **WMA** **MP3** *(recorded with other than 8 kHz, 16 kHz or 32 kHz)*: reproduces the frequencies lost during recording to give you a sound closer to the original.

1 DISPLAY

Press once.

2

① Press [▲ ▼] to select "Other Settings".
② Press [▶] then [▲ ▼] to select "Audio Menu".
③ Press [▶] then [▲ ▼] to select "Multi Re-master".
④ Press [ENTER] and [▲ ▼] to select "1", "2" or "3".
⑤ Press [ENTER].
● To exit the screen : Press **[RETURN]**.

```
◎ Menu
Multi Re-master    1
```

Setting	Type of music **DVD-V CD** (LPCM)]	Effect level **(Other discs)**
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

- This feature does not work when H.Bass (→ below) or Advanced Surround (→ page 13) is on.
- This feature does not work with **MP3** on DVD-RAM or DVD-R/RW.
- When connecting with a digital optical cable (→ page 26), the actual output sampling frequency depends on "PCM Digital Output" setting in "Audio" tab (→ page 25).

Enjoying heavy bass with the speakers (H.Bass) **DVD-V**

1 DISPLAY

Press once.

2

① Press [▲ ▼] to select "Other Settings".
② Press [▶] then [▲ ▼] to select "Audio Menu".
③ Press [▶] then [▲ ▼] to select "H.Bass".
④ Press [▶] then [▲ ▼] to select "On" or "Off".
⑤ Press [ENTER].
● To exit the screen : Press **[RETURN]**.
● If the sound is distorted or there is noise, set to "Off".

```
◎ Menu
H.Bass          Off
```

Providing the suitable picture quality for enjoying movies (Cinema1/Cinema2)

Cinema1: Mellows images and enhances detail in dark scenes.
Cinema2: Sharpens images and enhances detail in dark scenes.

1 DISPLAY

Press once.

2

① Press [▲ ▼] to select "Other Settings".
② Press [▶] then [▲ ▼] to select "Picture Menu".
③ Press [▶] to select "Picture Mode".
④ Press [▶] then [▲ ▼] to select "Cinema1" or "Cinema2".
● To exit the screen : Press **[RETURN]**.

```
◎ Menu
Picture Mode   Cinema1
```

Reducing noise in pictures (Depth Enhancer/MPEG DNR)

Depth Enhancer: Reduces the rough noise in the background to give a greater feeling of depth.
MPEG DNR: Smoothes block noise and reduces the smudging that appears around contrasting sections of the picture.

1 DISPLAY

Press once.

2

① In the procedure 2–④ (→ above, Cinema1/Cinema2), select "User" and press [ENTER].
② Press [▲ ▼] to select "Picture Adjustment" and press [ENTER].
③ Press [▲ ▼] to select "Depth Enhancer" or "MPEG DNR".
④ Press [◀ ▶] to change the setting. (Depth Enhancer: 0 to +4, MPEG DNR: 0 to +3)
● To exit the screen : Press **[RETURN]**.

```
○ Picture Adjustment
Depth Enhancer    0
MPEG DNR          0
```
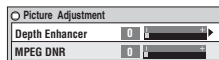
The above indicated features may not work depending on the disc's recording.

Playing data discs `WMA` `MP3` `JPEG` `MPEG4` `DivX`

● Select "Play as Data Disc" (➔ page 23, Other Menu) in the following cases:
  -To play HighMAT discs without using the HighMAT function
  -To play `JPEG`, `MP3`, `MPEG4` or `DivX` on DVD-RAM that contain both `DVD-VR` and another format (e.g. `JPEG`)

Playing items in order (Playback Menu)

While the menu is displayed

Press [▲ ▼] to select "All", "Audio", "Picture" or "Video" and press [ENTER].

● **To display/exit the screen:**
  Press **[TOP MENU].**

All content
WMA/MP3
JPEG
MPEG4 and DivX video

⏻ Playback Menu	
All	Total 436
Audio	Total 7
Picture	Total 427
Video	Total 2
▲▼ to select and press ENTER	

Playing from the selected item (Navigation Menu)
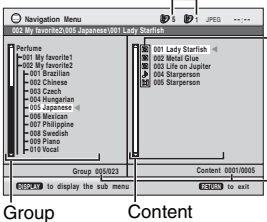
1 MENU

Press.

2 **Press [▲ ▼ ◄ ►] to select the group and press [ENTER].**

Group and content number currently playing

⭘ Navigation Menu	💿 5 💿 1	JPEG - - : - -

002 My favorite2/005 Japanese/001 Lady Starfish

Perfume
-001 My favorite1
-002 My favorite2
  -001 Brazilian
  -002 Chinese
  -003 Czech
  -004 Hungarian
  -005 Japanese ◄
  -006 Mexican
  -007 Philippine
  -008 Swedish
  -009 Piano
  -010 Vocal

📷 001 Lady Starfish ◄
🎵 002 Metal Glue
   003 Life on Jupiter
   004 Starperson
   005 Starperson

Group 005/023   Content 0001/0005

DISPLAY to display the sub menu   RETURN to exit

Group   Content

📷 :JPEG
🎵 :WMA/MP3
▥ :MPEG4 and DivX video

Number currently selected

● To play content in the group in order:
  Press [ENTER].
● To start play from the selected content:
  Press [▲ ▼] to select and press [ENTER].

●**To listen to WMA/MP3 while showing a JPEG image on the screen**
  Select a JPEG file first, and then select WMA/MP3. (The opposite order is not effective.)
●**To exit the screen:** Press **[MENU].**

■ Using the submenu

While the navigation menu (➔ see above) is displayed.

1 Press [DISPLAY].
2 Press [▲ ▼] to select the sub menu and press [ENTER].

Submenu

✓Multi	Groups and content
List	Content only
Tree	Groups only
Thumbnail	Thumbnail images `JPEG`
Next group	To the next group
Previous group	To the previous group
✓All	All content
Audio	WMA/MP3 only
Picture	JPEG only
Video	MPEG4 and DivX video only
✓Help display	To switch between guide messages and the playback condition indicator
Find	To search by content or group title (➔ see below)

■ Searching by a content or group title

Press [◄ ►] to highlight a group title to search a group, or a content title to search its content.
1 Select "Find" and press [ENTER]. (➔ see above)
2 Press [▲ ▼] to select a character and press [ENTER].

✳ A	Find

  ●Repeat to enter another character.
  ●Lower case is also searched.
  ●Press and hold **[⏮, ⏭]** to skip between A, E, I, O and U.
  ●Press **[◄]** to erase a character.
  ●Erase the asterisk (✳) to search for titles starting with that character.
3 Press [►] to select "Find" and press [ENTER]. The search result screen appears.
4 Press [▲ ▼] to select the content or group and press [ENTER].
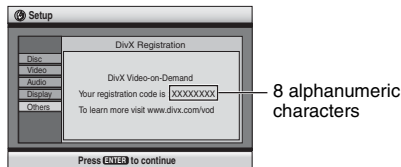
Playing data discs

About DivX VOD content

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.

Display the unit's registration code
(➔ page 25, "DivX Registration" in "Others" tab)

```
⊕ Setup
┌─────────────────────────────────────────┐
│            DivX Registration             │
│ ┌─────┐                                  │
│ │ Disc│      DivX Video-on-Demand        │
│ │Video│  Your registration code is XXXXXXXX │── 8 alphanumeric
│ │Audio│  To learn more visit www.divx.com/vod │   characters
│ │Display│                                │
│ │Others│                                 │
│ └─────┘                                  │
│                                          │
│          Press ENTER to continue         │
└─────────────────────────────────────────┘
```

- 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 "DivX 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. ("Rented Movie Expired" is displayed.)

When playing this content
- The number of remaining plays is reduced by one if
  –you turn off the unit or display "Setup" menu.
  –you press [■, –OFF]. (Press [▐▐] to stop play.)
  –you press [◄◄ ►►] (Skip or search) etc. and arrive at another content or the start of the content being played.
- Resume play (➔ page 10, Stop) does not work.

Playing HighMAT™ discs `WMA` `MP3` `JPEG`
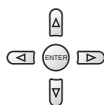
While the menu is displayed
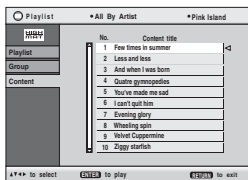**Press [▲▼◄►] to select items and press [ENTER].**

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

Playlist:
Play starts.

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

Selecting from the list
1. Press **[MENU]**.
2. Press **[◄]** then **[▲ ▼]** to switch among "Playlist", "Group" and "Content" lists.
3. Press **[►]** then **[▲ ▼]** to select an item and press **[ENTER]**.
- **To exit the screen:** Press **[MENU]**.

○ Playlist	●All By Artist	●Pink Island

	No.	Content title	
Playlist	1	Few times in summer	◁
Group	2	Less and less	
Content	3	And when I was born	
	4	Quatre gymnopedies	
	5	You've made me sad	
	6	I can't quit him	
	7	Evening glory	
	8	Wheeling spin	
	9	Velvet Cuppermine	
	10	Ziggy starfish	

| ▲▼◄► to select | ENTER to play | RETURN to exit |

Playing programs/playlists `DVD-VR`

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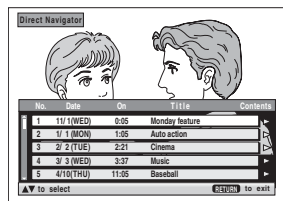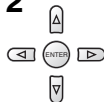- You cannot edit playlists and titles.

1

To play programs:

TOP MENU

To play playlists:

MENU

2

Press [▲▼] to select the program or playlist and press [ENTER].

| Direct Navigator |

No.	Date	On	Title	Contents
1	11/ 1(WED)	0:05	Monday feature	▶
2	1/ 1 (MON)	1:05	Auto action	◁
3	2/ 2 (TUE)	2:21	Cinema	▷
4	3/ 3 (WED)	3:37	Music	▶
5	4/10(THU)	11:05	Baseball	▶

| ▲▼ to select | | | RETURN to exit |

| ○ Playlist |

No.	Date	Total Time	Title
1	1/ 2	0:00:01	City Penguin
2	2/ 3	0:01:20	Ashley at Prom
3	3/ 4	1:10:04	Formula one
4	4/ 5	0:10:20	Soccer
5	5/ 6	0:00:01	Baseball
6	6/ 7	0:00:01	City Penguin
7	7/ 8	0:01:10	Ashley at Prom
8	8/ 9	0:13:22	Formula one
9	9/10	0:05:30	Soccer
10	10/11	0:07:29	Baseball

| ▲▼ to select and press ENTER | | | RETURN to exit |

- Only when the disc contains a playlist.

- Press **[►]** to show the contents of the program (Only when playing the program).
- **To exit the screen:** Press **[RETURN]**.

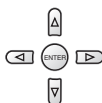# Playing CD using menus `CD`

Titles appear with CD text playback.

1

MENU

e.g. CD text

○ CD Text	▣ 1/23 2:01

Disc Title: **All By Artist**
Disc Artist: **Pink Island**
Track Title: **Long John Platinum**
Track Artist: **SHIPWRECKED**

1	Ashley at Prom	◀
2	City Penguin	
3	Formula one	
4	Soccer	
5	Baseball	
6	Neanderthal	
7	Cartoons	
8	Trilobites	
9	White Dwarf	
10	Discovery	

| ▲▼ to select and press ENTER | RETURN to exit |

2

Press [▲▼] to select the tracks and press [ENTER].

- **To exit the screen:** Press **[RETURN]**.

Press **[DISPLAY]** to switch between guide messages and the playback condition indicator.

Playing HighMAT™ discs/Playing programs/playlists/Playing CD using menus

# Enjoying in a car

Connecting the included Car DC Adaptor

Before connection, consult your car owner's manual or your dealer.
● Connect to the cigarette lighter socket of a vehicle that has a 12 V battery. It is not compatible with a vehicle that has a 24 V battery.
● This is a special negative grounded Car DC Adaptor. Using this Car DC Adaptor with a plus grounded car can cause malfunction and lead to fire.

W
N
W (Wide): Set to this position if the plug is loose.
N (Narrow) (factory preset): Set to this position for normal use.

To the cigarette lighter socket

Car DC Adaptor (included)

DC IN
DC IN 12 V ⊖–⬡–⊕

Left side of this unit
Place the unit on a stable surface
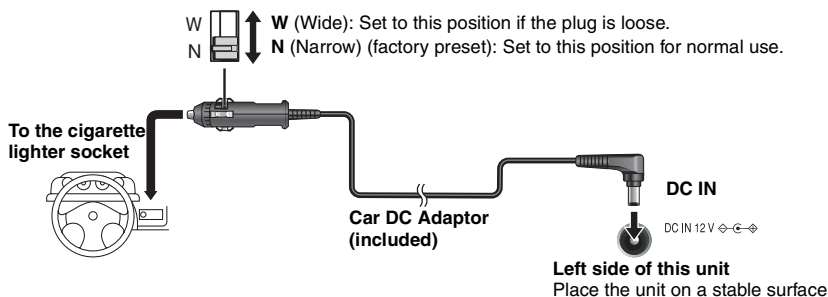
Replacing the fuse
Replace only with the specified 125 V/250 V, 3 A fuse. Use of any other type can cause fire.

2 Replace the fuse. (125 V/250 V, 3 A type)
3 Close
1 Open
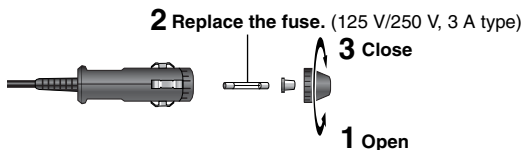
Cautions
● **To avoid draining your car battery**
  –Disconnect the Car DC Adaptor from the cigarette lighter after use. The Car DC Adaptor continues to consume some power even if it is not being used, and if a battery pack is attached to this unit, it will start recharging which uses more power.
  –Do not use the Car DC Adaptor for long periods when the engine is not running.
● Turn the unit off before stopping the engine while using Car DC Adaptor, otherwise resume play (→ page 10) may not work.
● Leave some slack in the cord.
● No responsibility will be taken for damage that occurs due to faulty installation.

You can enjoy audio through your car audio system by connecting a car stereo cassette adaptor (not included: RP-CC20) to the headphone jack on the left side of this unit.

(Left side of this unit)

Enjoying in a car

Enjoying video in the back seat with the Headrest Mounting Bracket

You can enjoy video in the back seat attaching the unit to the back of the front seat.
● Please insert the disc before attaching the unit to the headrest bracket.
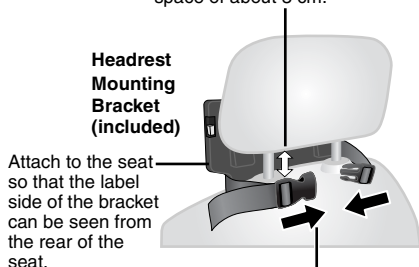
> ● **Do not attach or detach while driving, and do not attach in the following locations, otherwise it may result in injury or traffic accidents:**
> –anywhere other than the back of the seat
> –in a location that interferes with the driver's view or operation of the car
> –in a location that interferes with the operation of an airbag
> –in a location that interferes with the driving instruments
> ● **Make sure that the bracket belt is securely fastened, and check the lock on the unit.**
> In the event of an accident, sudden acceleration, or braking, the unit could become loose and cause injury.

1 Attaching the headrest bracket to the front seat.

① Adjust the headrest so there is an open space of about 3 cm.

Side view

Headrest Mounting Bracket (included)

Attach to the seat so that the label side of the bracket can be seen from the rear of the seat.
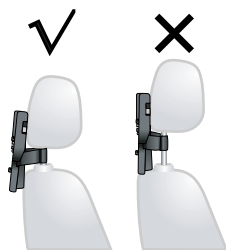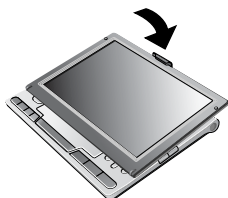
② Close the buckle and adjust the belt until it fits tightly around the headrest.

2 Attaching the monitor holder.

① Fold the monitor down towards the front of the unit and attach the monitor holder.
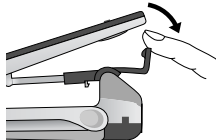
Monitor holder (included)
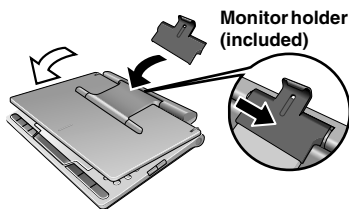
② Rotate the monitor backwards so the screen is facing out, and lock into place with the monitor holder.
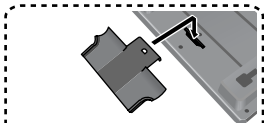
Check that the monitor is locked into position.

Detaching the monitor

Press the monitor holder as shown to detach it.

After use, detach the monitor holder from the unit. You can store it in the bracket.

3   Attaching the unit to the bracket.

While holding the unit with both hands, line up the unit just below the protruding sections on the bracket. Press the unit down about 4 to 5 mm so that the protrusions on the bracket fit into the holes on the bottom of the unit.

● Do not use until you make sure that the unit is not loose and cannot be lifted upwards.

Line up the protruding sections here.
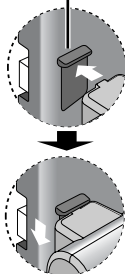
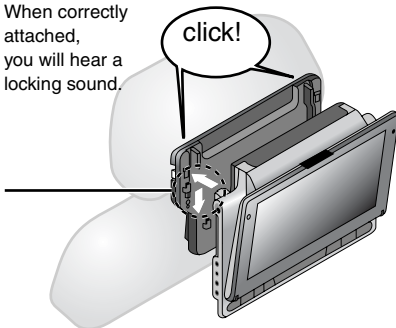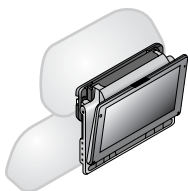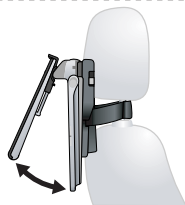When correctly attached, you will hear a locking sound.

click!

**Diagram of attached bracket**

Use the monitor in the open position as shown in the illustration to the right to prevent abnormal audio or damage resulting from vibrations in the car.
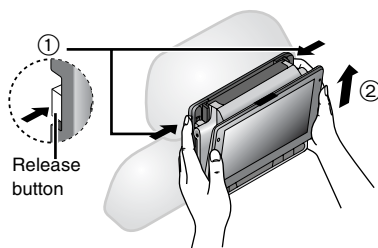The angle of the monitor can be adjusted up to about 30°.

● The angle of the monitor may shift while driving due to vibration, etc.

● Depending on the type of headrest, you may not be able to attach the bracket.

23 cm or less
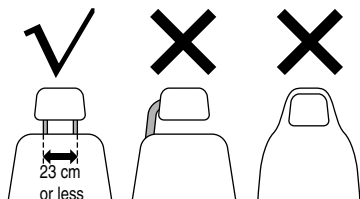
─Releasing the unit from the bracket ─

① ②

Release button

① Press the release buttons (left and right) in towards the center of the bracket.
② Lift the unit up to release it.
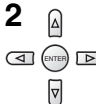● Do not press the release buttons any time other than when detaching the unit from the bracket.

Using On-Screen Menus

1 DISPLAY

Press once.

2

① **Press [▲▼] to select the menu.**
② **Press [▶] to go to the next menu and [▲▼] to set.**
   Repeat step ② if necessary.

● Items shown differ depending on the type of software.
● Press [◀] to go to the previous menu.
● If the setting does not change, press **[ENTER].**
● **To exit the screen:** Press **[RETURN].**

Main menus

Program, Group, Title Chapter, Track, Playlist Content	**To start from a specific item** ● Press [▲▼] to select and press **[ENTER].** ● Press and hold [▲▼] to alter faster.
Time	**To skip incrementally or decrementally (Time Slip for play only)** (Except +R/+RW) 1. Press **[ENTER]** twice to show Time Slip indicator. 2. Press [▲▼] to select the time and press **[ENTER].** ●Press and hold [▲▼] to alter faster. **To change remaining/elapsed time display**
Video	**To display pixel number** **DivX** fps (frame per second) is also displayed.
Audio	(➜ page 14, Changing soundtracks) **To display the current bitrate or sampling frequency**
Number Select **VCD** (with playback control)	**To enter number** ●Press and hold [▲▼] to alter faster.
Thumbnail	**To show thumbnail images**
Subtitle	(➜ page 14, Changing subtitles)
Marker (VR)	**To recall a marker recorded on DVD-Video recorders**
Angle	(➜ page 14, Angle select)
Rotate Picture	(➜ page 14, Still picture rotation)
Slideshow	**To turn on/off slideshow** **To change the slideshow timing ("1 Fast" to "5 Slow")** ● When using Slideshow, Skip/Rotate picture may not work correctly depending on the play position.
Other Settings	**(➜ See below)**

Other Settings

Play Speed	(➜ page 13, Changing play speed)

Play Menu (Only when the elapsed play time can be displayed.
        JPEG: Repeat function can be used.)

Repeat	(➜ page 12, Repeat play)
A-B Repeat	(➜ page 12)
Advanced Disc Review	(➜ page 13)

Picture Menu

Picture Mode	(➜ page 15, Cinema1/Cinema2/Depth Enhancer/MPEG DNR)
Source Select DivX	When you select "Auto" the constructing method of the DivX contents is automatically distinguished and output. If the picture is distorted, select "I (Interlace)" or "P (Progressive)" depending on which constructing method was used when the contents were recorded to disc. **Auto I (Interlace) P (Progressive)**

Using On-Screen Menus

Audio Menu

H.Bass	(→ page 15)
Advanced Surround	(→ page 13)
Dialogue Enhancer	**To make the dialogue in movies easier to hear** **DVD-V** (Dolby Digital, DTS, MPEG, 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) **On ←⟶ Off**
Multi Re-master	(→ page 15)
Sound Enhancement	**You can enjoy comfortable, analog-like sound.** **DVD-VR** **DVD-V** (recorded with 48 kHz only) **VCD** **CD** **WMA** **MP3** (recorded with other than 8 kHz, 16 kHz or 32 kHz) **On ←⟶ Off** ● This feature does not work with **MP3** on DVD-RAM or DVD-R/RW. ● This does not work when H.Bass (→ page 15), Advanced Surround (→ page 13) or Multi Re-master (→ page 15) is on. ● This may not work depending on the disc's recording.

Display Menu

Information	**On ←⟶ Off**
Subtitle Position	**0 to -60 (in 2 units)**
Subtitle Brightness	**Auto, 0 to -7**
Just Fit Zoom	*Motion pictures* To expand the letterbox picture to fit the screen. Press **[▲▼]** to select the preset aspect ratio or "Auto". **DVD-VR** **DVD-V** **VCD** Auto ←⟶ 4:3 Standard ←⟶ European Vista ←⟶ 16:9 Standard ↕ Cinemascope2 ←⟶ Cinemascope1 ←⟶ American Vista ● Depending on the disc, the preset aspect ratio may not be displayed. **MPEG4** **DivX** Standard ←⟶ Original ↕⟶ Full ⟵↵ ● This function is effective only when "Monitor Priority" is set to "Video Output" (→ page 24, "Video" tab).
Manual Zoom	*Motion pictures* Press **[▲▼]** for fine adjustments. (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) **MPEG4** **DivX** only –from ×2.00 to ×4.00 (in 0.05 units) It may not be possible to zoom up to ×4.00 depending upon the connected television and its settings. ● This function is effective only when "Monitor Priority" is set to "Video Output" (→ page 24, "Video" tab).
Bit Rate Display	*Motion pictures* **On ←⟶ Off**
GUI See-through	**Off, On, Auto (Switches on automatically when the images appear on the display.)**

Other Menu

Setup	(→ page 24, Changing the player settings)
Play as DVD-VR **Play as HighMAT** or **Play as Data Disc**	● Select "Play as Data Disc" to play **JPEG** , **MP3** , **MPEG4** or **DivX** on DVD-RAM that contain both **DVD-VR** and another format (e.g. **JPEG**) or to play a HighMAT disc without using the HighMAT function.

Using On-Screen Menus
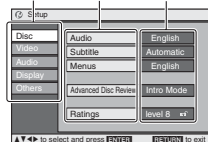
Changing the player settings

● Referring to pages 24 to 25, change as required.
● Underlined items are the factory presets.
The settings remain intact even if you switch the unit to standby.

1 DISPLAY **2**

Press once.

① **Press [▲▼] to select "Other Settings".**
② **Press [▶] then [▲▼] to select "Other Menu".**
③ **Press [▶] then [▲▼] to select "Setup".**
④ **Press [ENTER].**

Menu   Item   Content

Setup
Disc	Audio	English
Video	Subtitle	Automatic
Audio	Menus	English
Display		
Others	Advanced Disc Review	Intro Mode
	Ratings	level 8

▲▼◀▶ to select and press ENTER   RETURN to exit

● Press **[▲ ▼ ◀ ▶]** to select the menu, item, content and press **[ENTER]**.
● To enter number: press **[▲▼]** to select and press **[ENTER]**.
● To return to the previous screen: press **[RETURN]**.
● **To exit the screen:** Press **[RETURN].**

"Disc" tab

Audio	● <u>English</u> ●Original ※1 ● Other✱✱✱✱※3		**Language Options** ● French ●German ● Italian ●Spanish ● Polish ●Swedish ●Dutch
Subtitle	● <u>Automatic</u>※2 ●English ● Other✱✱✱✱※3		
Menus	● <u>English</u> ●Other✱✱✱✱※3		
Advanced Disc Review Select how to review (→ page 13).	● <u>Intro Mode</u>: Reviews each title/program. ● Interval Mode: Reviews each 10 minutes.		

Ratings
Set a ratings level to
limit DVD-Video play.
● Follow the on-
screen instructions.
	Setting ratings (When level 8 is selected)
	● <u>8 No Limit</u>
	● 1 to 7: To prohibit play of DVD-Video with corresponding ratings recorded on them.
	● 0 Lock All: To prevent play of discs without ratings levels.
	                  When setting a ratings level, a password screen is shown.
	                  Follow the on-screen instructions.
	Do not forget your password.
	A message screen will be shown if a DVD-Video exceeding the ratings level is
	inserted in the unit. Follow the on-screen instructions.		

※1 The original language designated on the disc is selected.
※2 If the language selected for "Audio" is not available, subtitles appear in that language (If available on the disc).
※3 Input a code number referring to the table on page 25.

"Video" tab

Monitor Priority Choose the video output mode.	● <u>Internal LCD</u>: Video output is suitable for the LCD on this unit. ● Video Output: When connected to a television.	

TV Aspect
Choose the setting to
suit your television
and preference.
	● 4:3 Pan&Scan: Regular aspect television (4:3)
	  The sides of the widescreen picture are cut off so it fills the
	  screen (unless prohibited by the disc).
	● 4:3 Letterbox: Regular aspect television (4:3)
	  Widescreen picture is shown in the letterbox style.
	● <u>16:9</u>: Widescreen television
	Use the television's screen modes to change the way the picture is shown.	

Still Mode Specify the type of picture shown when paused.	● <u>Automatic</u> ● Field: The picture is not blurred, but picture quality is lower. ● Frame: Overall quality is high, but the picture may appear blurred.	
NTSC Disc Output Choose PAL 60 or NTSC output when playing NTSC discs.	● <u>PAL60</u>: When connected to a PAL television ● NTSC: When connected to an NTSC television	
Picture/Video Output Choose the video signal format to be output for JPEG, MPEG4 and DivX video.	● <u>Automatic</u> ●PAL ● NTSC/PAL60: Output will depend on "NTSC Disc Output" setting (→ above). If picture output is not smooth during playback, change the setting.	

Changing the player settings *(vertical text, left margin)*

"Audio" tab

PCM Digital Output※	Check the digital input limitations of the equipment you connect and select the maximum sampling frequency of PCM digital output. • Off: When not connected using a digital optical cable • <u>Up to 48 kHz:</u> When connected to equipment compatible with 44.1 or 48 kHz • Up to 96 kHz: When connected to equipment compatible with 88.2 or 96 kHz • Up to 192 kHz: When connected to equipment compatible with 176.4 or 192 kHz •Signals from copy-protected discs are converted to 48 or 44.1 kHz. •Some equipment cannot handle sampling frequencies of 88.2 kHz, even if it can handle 96 kHz. Read your equipment's operating instructions for details.	
Dolby Digital※	• <u>Bitstream</u> • PCM	Select "Bitstream" when the equipment can decode the bitstream (digital form of multi-channel data). Otherwise, select "PCM". (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.)
DTS Digital Surround※	• <u>Bitstream</u> • PCM	
MPEG※	• <u>PCM</u> • Bitstream	
Dynamic Range Compression	• <u>Off</u> • On:	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).

※ Only when connected using a digital optical cable (➜ page 26).

"Display" tab

Menu Language	• <u>English</u> •Français •Deutsch •Italiano •Español • Polski •Svenska •Nederlands	
On-Screen Messages	• <u>On</u> • Off	
Background during Play Select background during JPEG, MPEG4 and DivX video playback.	• <u>Black</u> • Gray	

"Others" tab

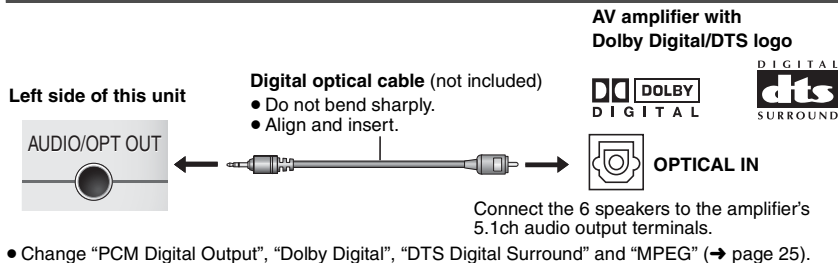| DivX Registration	You need this registration code to purchase and play DivX Video-on-Demand (VOD) content. (➜ page 17)
Re-initialise Setting This returns all values in the Setup menus to the default settings.	• Yes: The password screen is shown if "Ratings" (➜ page 24) is set. Please enter the same password and press **[ENTER]**. When "Initialised" appears on the screen, wait for about 10 seconds. Press **[ENTER]** and turn the unit off and on again. • <u>No</u>

Language code list

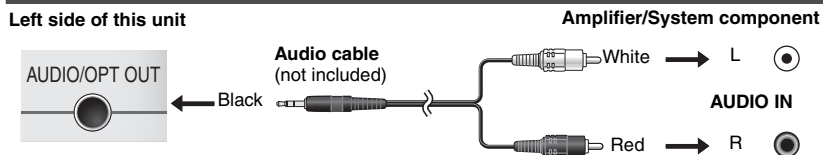|							
Abkhazian: 6566	Catalan: 6765	Hausa: 7265	Lithuanian: 7684	Rhaeto-Romance: 8277		Tajik: 8471	
Afar: 6565	Chinese: 9072	Hebrew: 7387	Macedonian: 7775			Tamil: 8465	
Afrikaans: 6570	Corsican: 6779	Hindi: 7273		Romanian: 8279		Tatar: 8484	
Albanian: 8381	Croatian: 7282	Hungarian: 7285	Malagasy: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

Using this unit with other equipment

Turn off all equipment before connecting and read the appropriate operating instructions.
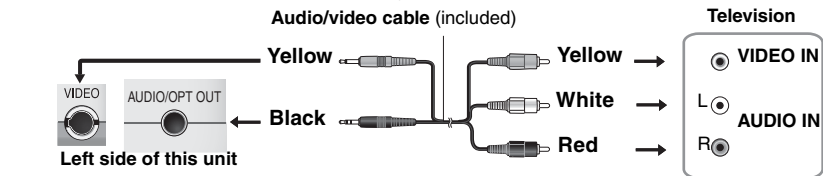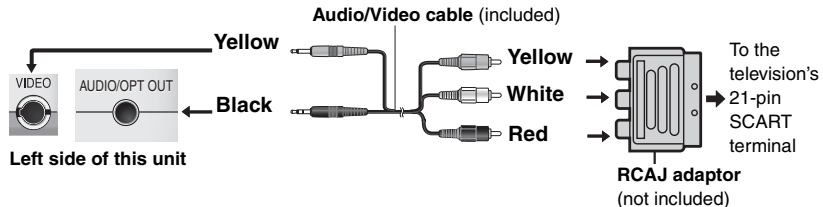
Enjoying with 5.1ch audio

**AV amplifier with
Dolby Digital/DTS logo**

Left side of this unit

Digital optical cable (not included)
● Do not bend sharply.
● Align and insert.

**DOLBY
DIGITAL**

**dts
SURROUND**

AUDIO/OPT OUT

OPTICAL IN

Connect the 6 speakers to the amplifier's
5.1ch audio output terminals.

● Change "PCM Digital Output", "Dolby Digital", "DTS Digital Surround" and "MPEG" (➜ page 25).

Enjoying stereo audio

Left side of this unit

Amplifier/System component

AUDIO/OPT OUT

Audio cable
(not included)

Black

White → L

AUDIO IN

Red → R

Enjoying with a television

● Connect the video output from this unit directly to the television.
● Set "Monitor Priority" to "Video Output" (➜ page 24, "Video" tab).

Audio/video cable (included)

Television

VIDEO

AUDIO/OPT OUT

Yellow

Black

Left side of this unit

Yellow →

White →

Red →

VIDEO IN

L

AUDIO IN

R

For the United Kingdom
Use the RCAJ adaptor (not included) if your TV has a 21-pin SCART terminal.

Audio/Video cable (included)

VIDEO

AUDIO/OPT OUT

Yellow

Black

Left side of this unit

Yellow →

White →

Red →

To the
television's
21-pin
SCART
terminal

RCAJ adaptor
(not included)

● The unit's speakers do not have magnetic shielding. Do not place the unit near televisions, personal computers or other devices easily influenced by magnetism. Do not keep this unit and magnetized cards (bank cards, commuter passes, etc.) close together.
● If you raise the volume on the television while playing this unit, the volume may abruptly become very loud when you switch to a television broadcast. Return the volume to its normal level before changing.

Frequently asked questions

Reference pages are shown in parentheses.

What kind of equipment is necessary to enjoy 5.1ch audio?	Connect to an AV amplifier (that has 5.1ch audio output terminals) displaying the Dolby Digital/DTS logo. **(26)**
Can I play a DVD-Video bought in another country?	You can only play DVD-Video if their region number is the same or includes the same region number as the unit or if the DVD-Video is marked "ALL". Confirm the region number for the unit on the bottom panel. Check the disc jacket. **(Cover)**
Can I use on an airplane or in a hospital?	Electromagnetic waves that are emitted from this unit may affect equipment on an airplane or in a hospital. Please obey the rules and/or instructions indicated by the hospital or airline.
Can I use in a car?	● You can use this unit by connecting with the included Car DC Adaptor for power. Damage may occur if you do not use the specified car adaptor. **(19)** ● You can enjoy video in the back seat with the included Headrest Mounting Bracket. **(20)**
Can I connect with a computer?	You can enjoy use of the computer as a television monitor when connecting with the AV input terminal on a computer. However, you cannot operate this unit as peripheral equipment.

Maintenance

To clean this unit, wipe with a soft, dry cloth.
● Use eyeglass cleaner to remove stubborn dirt from the LCD.
● Never use alcohol, paint thinner or benzine to clean this unit.

Maintenance of the lens
● Remove dust carefully with an air blower for camera lenses (optional).
● Recommended product:
   Lens cleaner kit (SZZP1038C)
   (Available from Panasonic dealers.)
● You cannot use a CD type lens cleaner.
● Be careful not to touch the lens with your fingers.

To clean discs
● Wipe with a damp cloth and then wipe dry.

Disc 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 drop stack, or impact discs. Do not place objects on them.
● To protect discs from scratches and dirt, return them to their cases or cartridges when you are not using them.
● 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.
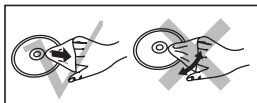
Troubleshooting guide

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, consult your dealer for instructions. (Reference pages are shown in parentheses.)

The following do not indicate malfunction.
- Sound from the AC adaptor during recharging.
- The battery pack warming up when recharging or during use.
- The surface and area around the unit becoming warm when used for long periods.

Power

No power	• Check connections to the AC adaptor or battery pack. **(8)** • The unit has protection circuitry that is activated if it becomes too hot or too cold. The unit will not work if this occurs. Use the unit between 5 °C and 35 °C.
Unit turns off automatically.	• The unit turns off after it has been stopped for about 15 minutes (5 minutes when the unit is powered by the battery pack) to conserve power. Turn the unit on again.
Cannot charge or the [CHG] indicator fails to light.	• The battery pack can only be recharged when the unit is off. • The charging time increases when the temperature is too hot or too cold, and charging may not be possible under some circumstances. • Check connections to the AC adaptor or battery pack. **(8)**
Play time dramatically reduced after recharging.	• The battery pack has reached the end of its service life (It can be recharged about 300 times).
Difficulty inserting the plug or the plug is loose when connecting Car DC Adaptor.	• Set the plug switch to "N" (Narrow) or "W" (Wide) to adjust the plug size depending on the type of socket. **(19)**

No operation

No response when any buttons pressed.	• This unit cannot play discs other than the ones listed in these operating instructions. **(6)** • 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 power source (AC or battery pack), and then reconnect it. • Condensation has formed: Wait 1 to 2 hours for it to evaporate.
You have forgotten your ratings password. Reset all the settings to Factory Preset.	• While stopped, press and hold [|◀◀] and [❙❙] on the unit and then also press and hold [▶, ON] on the unit until "Initialised" disappears from the screen. Turn the unit off and on again. All settings will return to the default values.
No picture or sound	• Check that the disc has something recorded on it.

Specific operation impossible or incorrect

It takes time before play starts.	• 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. • This is normal on DivX video.
Menu doesn't appear. **VCD** with playback control	• Press [■, –OFF] twice and then press [▶, ON].
Subtitle position is wrong.	• Adjust the position. ("Subtitle Position" in Display Menu) **(23)**
No subtitles	• Display the subtitles. **(14)**
In A-B repeat, point B is automatically set.	• The end of an item becomes point B when it is reached.
Play doesn't start.	• This unit may not play WMA and MPEG4 that contains still picture data. • If playing DivX VOD content, refer to the homepage where you purchased the DivX VOD content. (Example: www.divx.com/vod) • If a disc contains CD-DA and other formats, proper playback may not be possible.

Picture incorrect

No picture on the LCD.	● Select a monitor mode other than "OFF" (No picture). **(12, Selecting how to show 4:3 aspect pictures on the LCD)**.
The LCD is dark.	● Adjust the brightness. **(12)**
LCD pixels turn black or radiate different colors.	● The LCD is constructed with precision technology so 99.99 % of the pixels are active, but of the remaining 0.01 %, there are pixels that may be black or emit light constantly. This phenomenon is not a malfunction.
Picture doesn't appear on the television (or the size of the picture seems wrong).	● Check connections. **(26)** ● Check that the television is on. ● Check that the input mode on the television is correct. ● Check the settings in "Video—TV Aspect". **(24)** ● Turn off the zooming feature on your television if you are using Zoom. **(23)** ● Ensure that the unit is connected directly to the television, and is not connected through a video cassette recorder. **(26)**
Picture distorted	● Picture quality may worsen or some frames may be skipped when viewing MPEG4, but this is normal. ● [DivX] Change "Source Select" in Picture Menu. **(22)** ● Set "Monitor Priority" to "Video Output" when connecting to a television. **(24)**
Picture stops.	● Picture may stop if the DivX files are greater than 2 GB.
Menu not displayed correctly.	● Restore the zoom ratio to ×1.00. **(23)** ● Set "Subtitle Position" in Display Menu to "0". **(23)**
Auto zoom function does not work well.	● Use the other preset aspect ratios or manual adjustment. **(23)** ● Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc.

Sound incorrect

Sound distorted.	● Select "Off" in "Advanced Surround". **(13)** ● Move unit away from mobile phones. ● Noise may occur when playing WMA files. ● There may be some noise output when playing MPEG4, but this is normal.
Piercing noise comes from the speakers.	● If you have connected a digital amplifier which does not include decoder, be sure to select "PCM" in "Dolby Digital", "DTS Digital Surround" or "MPEG" in "Audio" tab. **(25)**
Effects do not work.	● None of the audio effects work when the unit is connected through the digital optical cable and is outputting bitstream signals. **(26)** ● Some audio effects do not work or have less effect with some discs. ● H.Bass, Advanced Surround, Multi Re-master and Sound Enhancement do not work if you have changed the play speed.
No sound from the unit's speaker.	● The speaker is off if the LCD is closed or headphones are connected. ● Turn up the volume. **(10)**
No sound from other speakers.	● Check all connections and settings. **(26)**
No sound	● There may be a pause in sound when you change the play speed. ● [DivX] Audio may not be output due to how files were created. **(7)**

Troubleshooting guide

# Troubleshooting guide

Recording

Cannot record to digital recording equipment. (Incorrect sound recorded.)	● You cannot record WMA/MP3.
	● You cannot record DVDs that have protection preventing digital recording.
	● You cannot record DVDs if the recording equipment cannot handle signals with a sampling frequency of 48 kHz.
	● Make the following settings:
	  – Advanced Surround: Off **(13)**
	  – PCM Digital Output: Up to 48 kHz **(25)**
	  – Dolby Digital/DTS Digital Surround/MPEG: PCM **(25)**

Displays

"⊘"	● The operation is prohibited by the unit or disc.
No On-Screen display.	● Select "On" for "On-Screen Messages" in "Display" tab. **(25)**
"Check the disc." **"U11"**	● Clean the disc. **(27)** ● You inserted a disc that has not been finalized. **(6)**
" 🔋 ERROR 01"	● A problem has occurred with the battery pack. Consult your dealer.
" 🔋 ERROR 02"	● The battery pack has been recharging for 20 hours but has failed to recharge for some reason. Recharge again.
" 🔋 ERROR 03"	● You are recharging in a location that is too hot or too cold. Recharge at normal temperature ($+5$ to $+35\ °$C).
"H □□" **□□ stands for a number.**	● Trouble has occurred. The number appearing after "H" depends on the problem. Turn the unit off and on again. Alternatively, turn the unit off, disconnect the power source (AC or battery pack), reconnect the power and turn the unit on again. If the service numbers fail to clear, note the service numbers and consult your dealer.
"Cannot display group xx, content xx"	● You are trying to play incompatible groups or content. **(7)**
"Authorization Error"	● 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. **(17)**
"Rented Movie Expired"	● The DivX VOD content has zero remaining plays. You cannot play it. **(17)**

[⏻] and [CHG] indicators

The [⏻] indicator flashes rapidly.	● The unit has malfunctioned. Consult your dealer.
The [⏻] indicator flashes slowly.	● The unit is on and the LCD is closed or the monitor mode is set to "OFF" (No picture). Turn the unit off when you have finished.
The [CHG] indicator flashes rapidly.	● There is a problem with the battery pack. Turn the unit on and check the message on the LCD. **(above)**
The [CHG] indicator flashes slowly.	● Battery pack charge is low. The unit will turn off automatically after a few minutes.

Specifications

Operating temperature range:
+5 to +35 °C
Operating humidity range:
5 to 85 % RH (no condensation)
Discs played (8 cm or 12 cm):
(1) DVD (DVD-Video, DivX[*6, 8])
(2) DVD-RAM (DVD-VR, JPEG[*4, 6, 7], MP3[*2, 6] MPEG4[*5, 6], DivX[*6, 8])
(3) DVD-R (DVD-Video, DVD-VR, JPEG[*4, 6, 7], MP3[*2, 6], MPEG4[*5, 6], DivX[*6, 8])
(4) DVD-R DL (DVD-Video, DVD-VR)
(5) DVD-RW (DVD-Video, DVD-VR, JPEG[*4, 6, 7], MP3[*2, 6], MPEG4[*5, 6], DivX[*6, 8])
(6) +R/RW (Video)
(7) +R DL (Video)
(8) CD, CD-R/RW [CD-DA, Video-CD, SVCD[*1], MP3[*2, 6], WMA[*3, 6], JPEG[*4, 6, 7], MPEG4[*5, 6], DivX[*6, 8], HighMAT Level 2 (Audio and Image)]

Signal system: PAL/PAL 60 (NTSC) selectable
LCD screen: 9″ α-Si, TFT wide-screen LCD
Composite-video output:
Output level: 1 Vp-p (75 Ω)
Output terminal: φ 3.5 mm mini jack
Number of terminals: 1 system
Audio output:
Output level: 1.5 Vrms (1 kHz, 0 dB, 10 kΩ)
Output terminal: φ 3.5 mm stereo mini jack
Number of terminals: 1 system
Audio performance:
(1) 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
(2) S/N ratio:
● CD audio: 115 dB
(3) Dynamic range:
● DVD (linear audio): 98 dB
● CD audio: 97 dB
(4) Total harmonic distortion:
● CD audio: 0.008 %
Digital audio output:
Optical digital output: Mini optical terminal
Number of terminals: 1 system
(also used for audio output)
Headphone output:
Output: φ 3.5 mm stereo mini jack
Number of terminals: 2 systems
Pickup:
Wave length: 662 nm/785 nm (DVD/CD)
Laser power: CLASS 3B/CLASS 3B (DVD/CD)

Power supply: DC 12 V (DC IN terminal)/
DC 7.2 V (Exclusive battery terminal)
Power consumption (using included AC adaptor)**:**
13 W (Unit only: 10 W)
Power consumption in Standby mode
(using included AC adaptor):
approx. 0.3 W
Power consumption in Recharge mode
(using included AC adaptor)**:**
13 W

AC adaptor:
Power source: AC 100 to 240 V, 50/60 Hz
Power consumption: 28 W
DC output: 12 V, 1.5 A
Car DC Adaptor:
DC output: 12 V, 2 A
(Vehicle with 12 V battery only)
Battery pack (lithium ion)
CGR-H701 (included):
Voltage: 7.2 V
Capacity: 2150 mAh
Dimensions (W×D×H):
(excluding protrusions and battery):
235.4 mm×179.2 mm×46.0[*] mm
[*]24.3 mm at lowest point
(D=179.2 mm including battery)
(H=46.6 mm including battery)
Mass:
including battery; 1004 g
without battery; 862 g

| Note |

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

[*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 160×120 and 6144×4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4)
[*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]The total combined maximum number of recognizable audio, picture and movie contents and groups: 4000 audio, picture and movie contents and 400 groups.
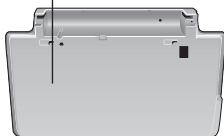[*7]Extremely long and slender pictures may not be displayed.
[*8]Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files. Certified to the DivX Home Theater Profile. GMC (Global Motion Compensation) is not supported.

Specifications

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