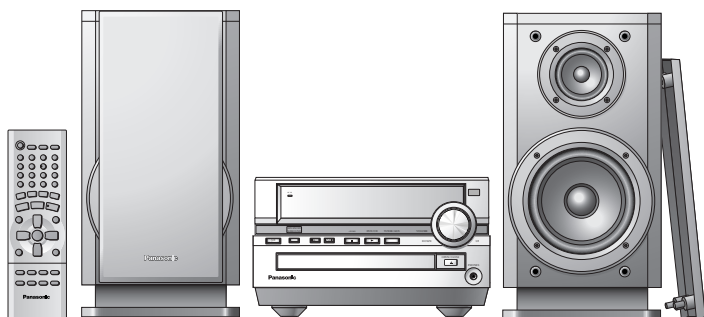


DVD Stereo System

Operating Instructions

Model No. **SC-DP1**



Panasonic®

Region number supported by this player

Region numbers are allocated to DVD players and software according to where they are sold.

For the United Kingdom and Continental Europe

- The region number of this player is "2".
- The player will play DVD-Video marked with labels containing "2" or "ALL".

Example:



For Southeast Asia

- The region number of this player is "3".
- The player will play DVD-Video marked with labels containing "3" or "ALL".

Example:



For Australia and N.Z.

- The region number of this player is "4".
- The player will play DVD-Video marked with labels containing "4" or "ALL".

Example:



For Russia

- The region number of this player is "5".
- The player will play DVD-Video marked with labels containing "5" or "ALL".

Example:



Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

Note

"EB" on the packaging indicates the United Kingdom.

EB E EE GN GCS GCT

RQT6817-3B

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

System	SC-DP1
Main unit	SA-DP1
Speakers	SB-DP1

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.

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.

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

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

For Southeast Asia

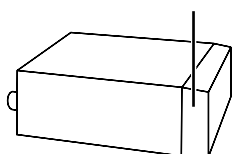
THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

For others

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

CLASS 1
LASER PRODUCT

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT



(Side of product)

- Operations in these instructions are described mainly with the remote control, but you can do the operations on the main unit if the controls are the same.
- Unless otherwise indicated, illustrations in these operating instructions are of the unit for the United Kingdom, Continental Europe and Russia.

SUOMI

VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VAROITUS:

TULIPALO-, SÄHKÖISKUAARAN TAI TUOTETTA KOHTAAVAN MUUN VAHINGON VÄHENTÄMISEKSI EI LAITETTA SAA ALTISTAA SATEELLE, KOSTEUDELLE, VESIPISAROILLE TAI ROISKEELLE, EIKÄ NESTETTÄ SISÄLTÄVIÄ ESINEITÄ, KUTEN ESIMERKIKSI MALJAKOITA, SAA ASETTAA LAITTEEN PÄÄLLE.

VAROITUS!

- ÄLÄ ASENNATA TAI LAITA TÄTÄ LAITETTA KABINETTITYYPPISEEN KIRJAKAAPPIIN TAI MUUHUN SULJETTUUN TILAAN, JOTTA TUULETUS ONNISTUISI. VARMISTA, ETTÄ VERHO TAI MIKÄÄN MUU MATERIAALI EI HUONONNA TUULETUSTA, JOTTA VÄLTETTÄISIIN YLIKUUMENEMISESTÄ JOHTUVA SÄHKÖISKU- TAI TULIPALOVAARA.
- ÄLÄ PEITÄ LAITTEEN TUULETUSAUKKOJA SANOMALEHDellä, PÖYTÄLINALLA, VERHOLLA TAI MUULLA VASTAAVALLA ESINEELLÄ.
- ÄLÄ ASETA PALAVAA KYNTTILÄÄ TAI MUUTA AVOTULEN LÄHDETTÄ LAITTEEN PÄÄLLE.
- HÄVITÄ PARISTOT LUONTOA VAHINGOITTAMATTOMALLA TAVALLA.

TÄMÄ LAITE ON TARKOITETTU KÄYTETTÄVÄKSI LEUDOSSA ILMASTOSSA.

NORSK

ADVARSEL!

DETTE PRODUKTET ANVENDER EN LASER. BETJENING AV KONTROLLER, JUSTERINGER ELLER ANDRE INNGREP ENN DE SOM ER BESKREVET I DENNE BRUKSANVISNING, KAN FØRE TIL FARLIG BESTRÅLING. DEKSLER MÅ IKKE ÅPNES, OG FORSØK ALDRI Å REPARERE APPARATET PÅ EGENHÅND. ALT SERVICE OG REPARASJONSARBEID MÅ UTFØRES AV KVALIFISERT PERSONELL.

ADVARSEL:

FOR Å REDUSERE FAREN FOR BRANN, ELEKTRISK STØT ELLER SKADER PÅ PRODUKTET, MÅ DETTE APPARATET IKKE UTSETTES FOR REGN, FUKTIGHET, VANNDRÅPER ELLER VANNSPRUT. DET MÅ HELLER IKKE Plasseres GJENSTANDER FYLT MED VANN, SLIK SOM BLOMSTERVASER, OPPÅ APPARATET.

ADVARSEL!

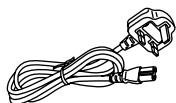
- APPARATET MÅ IKKE Plasseres I EN BOKHYLLE, ET INNEBYGGET KABINETT ELLER ET ANNET LUKKET STED HVOR VENTILASJONSFORHOLDENE ER UTILSTREKKELIGE. SØRG FOR AT GARDINER ELLER LIGNENDE IKKE FORVERRER VENTILASJONSFORHOLDENE, SÅ RISIKO FOR ELEKTRISK SJOKK ELLER BRANN FORÅRSAKET AV OVERHETING UNNGÅS.
- APPARATETS VENTILASJONSÅPNINGER MÅ IKKE DEKKES TIL MED AVISER, BORDDUKER, GARDINER OG LIGNENDE.
- Plasser IKKE ÅPEN ILD, SLIK SOM LEVENDE LYS, OPPÅ APPARATET.
- BRUKTE BATTERIER MÅ KASSERES UTEN FARE FOR MILJØET.

DETTE APPARATET ER BEREGNET TIL BRUK UNDER MODERATE KLIMAFORHOLD.

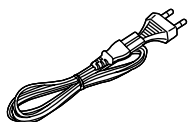
☐ **1 Remote control**
(N2QAJB000075)



For the United Kingdom
(RJA0053-3X)



For others
(RJA0019-2X)



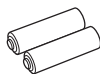
☐ 1 **AM loop antenna**
(N1DAAAA00001)



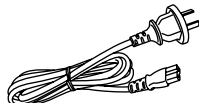
☐ 1 Video cable
(RJL1P016B15A)



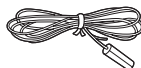
☐ **2 Batteries**
for remote control



For Australia and N.Z.
(RJA0035-2X)



☐ **1 FM indoor antenna**
(RSA0007-J)



☐ **For the United Kingdom only**
1 Antenna plug adaptor
 (K1YZ02000013)



The included AC mains lead is for use with this unit only. Do not use it with other equipment.

For the United Kingdom and Republic of Ireland

shop@ **Panasonic**

www.panasonic.co.uk (for UK customers only)

- Order accessory and consumable items for your product with ease and confidence by telephoning our Customer Care Centre Mon–Friday 9:00am–5:30pm. (Excluding public holidays.)
- Or go on line through our Internet Accessory ordering application.
- 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!

Customer Care Centre

For UK customers: 08705 357357
For Republic of Ireland customers: 01 289 8333

Technical Support

For UK customers: 0870 1 505610

This Technical Support Hot Line number is for Panasonic PC software related products only.

For Republic of Ireland, please use the Customer Care Centre number listed above for all enquiries.

For all other product related enquiries, please use the Customer Care Centre numbers listed above.

CAUTION	- LASER STRÄHLUNG WENN ÖFFNEN. - NICHT STARE IN DIE BEAM.	FDA 21 CFR / Class II
CAUTION	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. - AVOID EXPOSURE TO BEAM.	EC60825-1 / Class II
WARNING	- SYNYLÖ OG ØYNSYLIG LASERSTRÅLING NÅR DENNA DEL ÅR ÖPPNAD. BETRÄKTA EGT STRÅLEN.	
ADVARSEL	- SYNYLIG OG ØYNSYLIG LASERSTRÅLING VED ÅPNING. UNNGÅ UDSÆTTELSE FOR STRÅLING.	
ADVARSEL	- SYNYLIG OG ØYNSYLIG LASERSTRÅLING NÅR DESKEL ÅPNEES. UNNGÅ EKSPONERING FOR STRÅLEN.	
VARO!	- MATIATSESSA OLET ALTUINKA NÄKYVÄÄ JA NÄKYMÄTÖN LASERLÄSÄITÄILYÄ. ÄLÄ KATOTA STRÄLÄÄ.	
VORSICHT	- SICHBARE UND UNSICHBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHLEN AUSSETZEN.	
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. ÉVITER L'EXPOSITION AU FAISCEAU.	
注意	- 打开时有可见及不可见激光辐射，请勿直视光束。	
注意	- この製品と見られるが不可視レーザーが出力します。 ビームと視られ、燃焼したりしないです。	RJQS0504

Table of contents

Accessories.....	3
Caution for AC Mains Lead	4
Glossary.....	4
Disc information	5

STEP1	Locating	6
STEP2	Connecting the speakers	7
STEP3	Television	8
STEP4	Connecting the antennas and AC mains lead	9
STEP5	The remote control	9
STEP6	QUICK SETUP	10
STEP7	Setting the time	11
Turning DEMO off		11

Control reference guide	12
--	-----------

Discs—Basic play	13
Position Memory function	13
Skipping items/Fast forward and rewind—SEARCH	14
Slow-motion play/Frame-by-frame viewing	14
Discs—Convenient functions	15
Starting play from a selected item/Repeat play	15
A-B repeat play/Selecting groups to play	15
All group play/Random play/Program play	16
Soundtracks/Subtitles/Angles	17
Marking places to play again/Variable Zoom function	18
Advanced surround/Cinema	19
Selecting still pictures—Page Skip	19
Dialogue enhancer/Rotating pictures	19
Replaying a scene—QUICK REPLAY	19
Navigation menus	20
Playing WMA/MP3/JPEG and CD text	20
Playing HighMAT discs	21
Playing the programs or play lists on DVD-RAM	22
Selecting a program to play—DIRECT NAVIGATOR	22
Using the play list menu	22
Using GUI (Graphical User Interface) screens	23
Common procedures/Progress indicator	23
Disc information/Unit information	24

The radio	26
Manual tuning/Preset tuning	26

Convenient functions	27
Double re-master—Enjoying more natural sound	27
Adjusting the bass and treble with manual equalizer	27
Using the built-in sound quality settings	27
Enjoying more powerful bass/Muting the volume	28
Changing the display/Operating a television	28
The play timer/The sleep timer/Using headphones	29
Changing settings	30
Using other equipment	32
Language code list	33
Optional antenna connections	33

Safety precautions	33
Troubleshooting guide	34
Specifications	Back cover
Maintenance	Back cover

(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

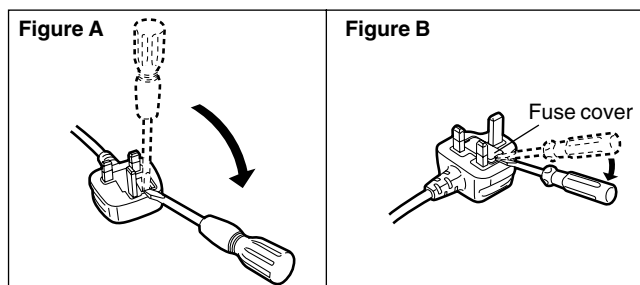
Remove the connector cover.

How to replace the fuse

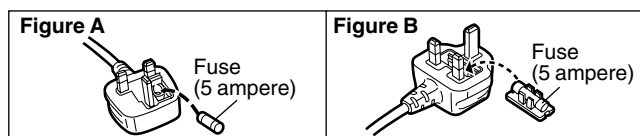
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

- 1 Open the fuse cover with a screwdriver.



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



Decoder

A decoder restores the coded audio signals on DVDs to normal. This is called decoding.

Dolby Digital

This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be multi-channel audio. A large amount of audio information can be recorded on one disc using this method.

DTS (Digital Theater Systems)

This surround system is used in many movie theaters around the world. There is good separation between the channels, so realistic sound effects are possible.

Dynamic range

Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

Film and video

DVD-Videos are recorded using either film or video. Usually, film is recorded at 24 frames per second, the rate movies are filmed at, while video is recorded at 30 frames per second.

Frame still and field still

Frames are the still pictures that go together to make a moving picture. There are about 30 frames shown each second.

One frame is made up of two fields. A regular television shows these fields one after the other to create frames.

A still is shown when you pause a moving picture. A frame still is made up of two alternating fields, so the picture may appear blurred, but overall quality is high.

A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

Interlace and progressive output

NTSC, the video signal standard, has 480 interlaced (I) scan lines, whereas progressive scanning uses twice the number of scan lines. This is called 480P. The video signals output from this unit's COMPONENT VIDEO OUT terminals (Y, P_B, P_R) allow you to enjoy higher quality pictures than if the signals were output from the VIDEO OUT terminal or S-VIDEO OUT terminal.

I/P/B

MPEG 2, the video compression standard adopted for use with DVD-Video, codes frames using these 3 picture types.

I: Intra coded picture

This picture has the best quality and is the best to use when adjusting the picture.

P: Predictive coded picture

This picture is calculated based on past I or P-pictures.

B: Bidirectionally-predictive coded picture

This picture is calculated by comparing past and future I and P-pictures so it has the lowest volume of information.

Linear PCM (pulse code modulation)

These are uncompressed digital signals, similar to those found on CDs.

Playback control (PBC)

If a Video CD has playback control, you can select scenes and information with menus.

■ Discs that can be played

Disc type	Logo	Indication used in instructions
DVD-RAM		RAM
DVD-Audio		DVD-A
DVD-Video		DVD-V
DVD-R		
Video CD		VCD Including SVCD (conforming to IEC62107)
CD		CD Including CD text
CD-R/RW	—	WMA MP3 JPEG

- Multiple-channel signals are down-mixed to stereo (2-channel). (To enjoy multi-channel surround sound ➡ page 32)
- Use discs with the above logos and that conform to specifications. The unit cannot play other discs correctly.
- Do not use irregularly shaped discs (e.g. heart-shaped), as these can damage the unit.

■ Discs that cannot be played

DVD-ROM, CD-ROM, CDV, CD-G, +RW, DVD-RW, CVD, SACD, Divx Video Discs, Photo CD and “Chaoji VCD” available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

■ Disc structure

Disc structure and the labels given to the items on discs depend on the disc type.

Track: the smallest division on DVD-Audio, CDs, and Video CDs, or a single WMA/MP3 file.

Chapter: the smallest division on DVD-Video.

Group: collections of tracks on DVD-Audio and equivalent to folders or albums on data discs.

Title: the largest division on DVD-Video, usually an entire movie.

Program: the division on DVD-RAM equivalent to a single recording.

Picture: a single JPEG file.

Play list: the largest grouping on a HighMAT disc, or a group of scenes on DVD-RAM

Scene: DVD-RAM program sections specified and grouped into play lists on a DVD video recorder.

Content: covers tracks and pictures on HighMAT discs.

■ Built-in decoders

This unit has Dolby Digital and DTS decoders so you can enjoy these systems in stereo without connecting a separate decoder.



Playing DVDs and Video CDs

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

■ HighMAT discs

This unit is compatible with HighMAT discs containing WMA, MP3, and/or JPEG files.

■ CD-R and CD-RW discs

This unit can play CD-R/RW (audio recording disc) recorded with CD-DA, video CD, SVCD (conforming to IEC62107), WMA, MP3 or JPEG. Close the sessions or finalize the disc after recording.

■ DVD-R discs

Panasonic DVD-R recorded and finalized on a Panasonic DVD video recorder are played as DVD-Video on this unit.

■ DVD-RAM discs

DVD-RAM discs must meet the following conditions for this unit to be able to play them.

Type	• Non-cartridge discs • Discs that can be removed from their cartridges (TYPE 2 and 4)
Capacity	• 12 cm 9.4 GB (double-sided) and 4.7 GB (single-sided) • 8 cm 2.8 GB (double-sided)
Recording format	Discs recorded with DVD video recorders, DVD video cameras, personal computers, etc., using Version 1.1 of the Video Recording Format (a unified video recording standard).

- Remove TYPE 2 and 4 discs from their cartridges before use, then return them when you are finished, making sure that the labels of the disc and cartridge face the same way.
- Some parts of the disc, for example where one program ends and another begins, may not play smoothly.

Note

It may not be possible to play CD-R, CD-RW, DVD-R and DVD-RAM in all cases due to the type of disc or condition of the recording.

■ Video systems

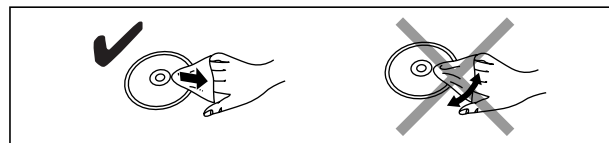
This unit can play both the PAL and NTSC video systems. To view PAL or NTSC, however, your television must match the system used on the disc.

PAL discs cannot be correctly viewed on an NTSC television. NTSC can be correctly viewed on a PAL television by converting the video signal to PAL 60 (➡ page 30, Video—NTSC Disc Output).

■ To clean discs

DVD-Audio, DVD-Video, Video CD, CD

Wipe with a damp cloth and then wipe dry.



DVD-RAM, DVD-R

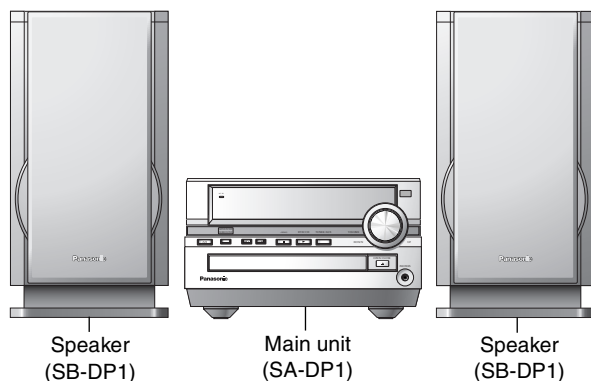
- Clean with an optional DVD-RAM/PD disc cleaner (LF-K200DCA1, where available).
- Never use cloths or cleaners for CDs etc.

■ Handling precautions

- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not attach labels or stickers to discs. (Do not use discs with exposed adhesive from tape or left over peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.

Simple setup

STEP 1 Locating



Note

Keep your speakers at least 10 mm away from the system for proper ventilation.

●Use only supplied speakers

Using other speakers can damage the unit and sound quality will be negatively affected.

- Set the speakers up on an even surface to prevent them from falling. Take proper precautions to prevent the speakers from falling if you cannot set them up on an even surface.

Positioning for best effect

How you set up your speakers can affect the bass and the sound field. Note the following points.

- Place speakers on flat secure bases.
- Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with thick curtain.

Notes on speaker use

- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage.
 - When playing distorted sound.
 - When the speakers are receiving howling from a record player, noise from FM broadcasts, or continuous signals from an oscillator, test disc, or electronic instrument.
 - When adjusting the sound quality.
 - When turning the unit on or off.

If irregular coloring occurs on your television

These speakers are designed to be used close to a television, but the picture may be affected with some televisions and setup combinations.

If this occurs, turn the television off for about 30 minutes.

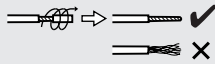
The television's demagnetizing function should correct the problem. If it persists, move the speakers further away from the television.

Caution

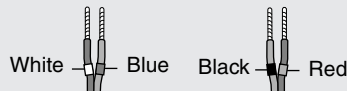
- Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.
- Do not attach these speakers to walls or ceilings.

STEP 2 Connecting the speakers

Twist the vinyl tip and pull off.



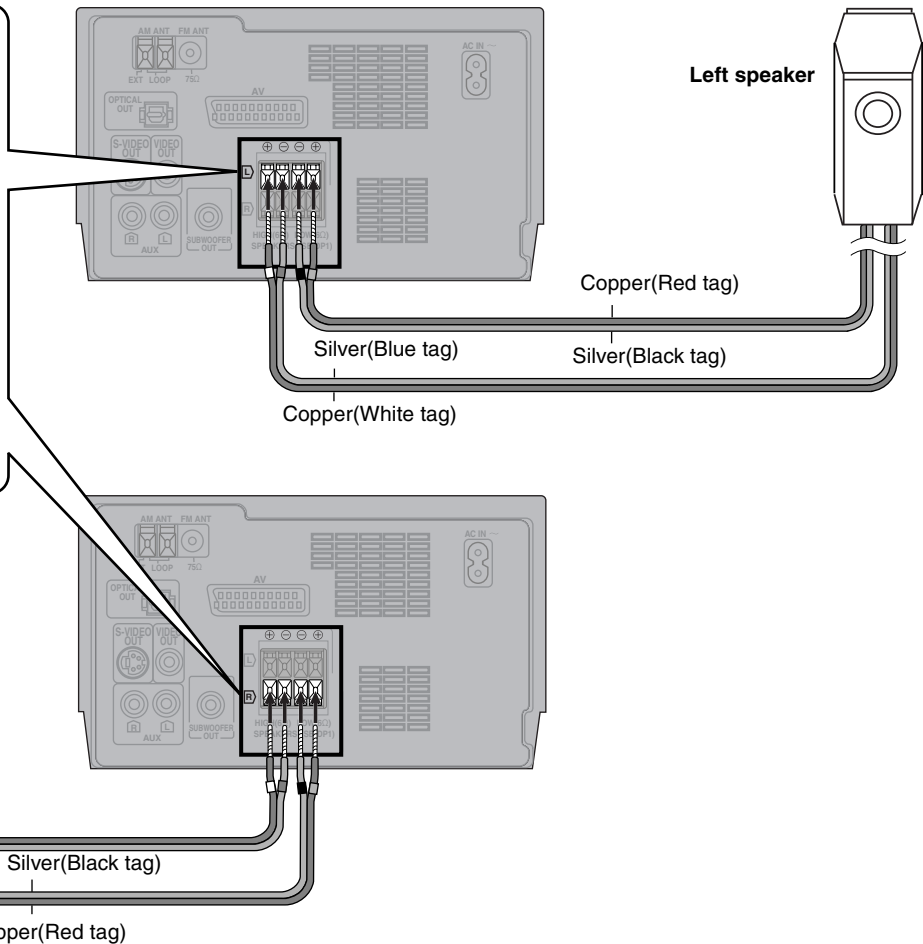
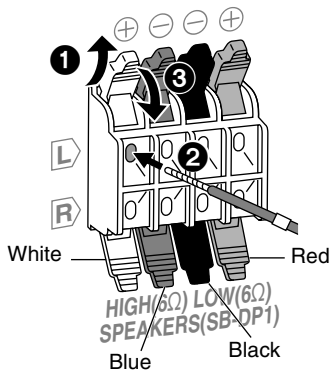
Confirm the colors of the tags on the ends of the cords.



Note

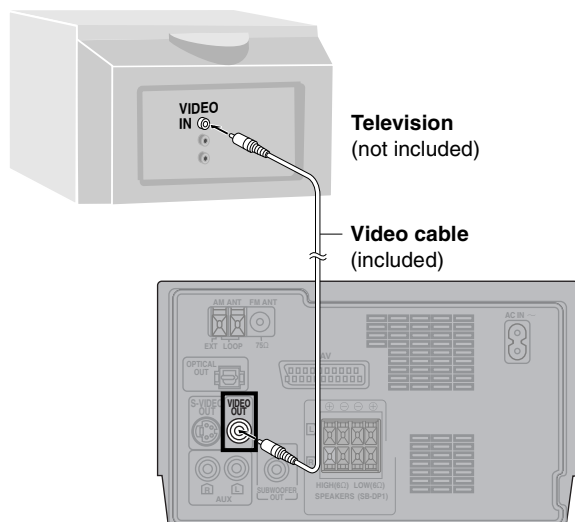
- Never short-circuit positive (+) and negative (-) speaker wires.
 - Be sure to connect only positive (copper) wires to positive (+) terminals and negative (silver) wires to negative (-) terminals.
- Incorrect connection can damage the speakers.

Connect cords so tag colors match the terminal colors.



STEP 3 Television

■ Connecting a television with a VIDEO IN terminal

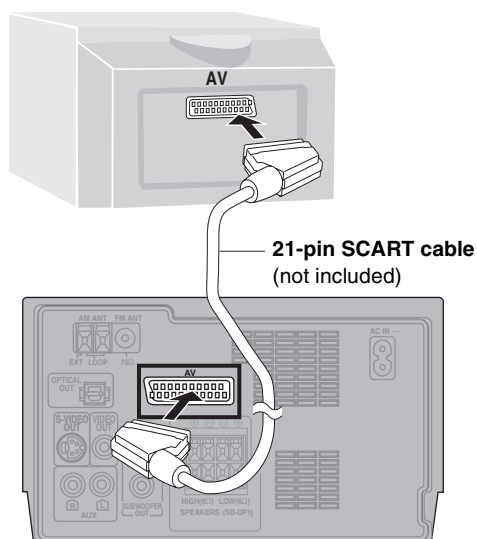


Connect directly to your television.

Do not connect the unit through a video cassette recorder, because the picture may not be played correctly due to the copy guard.

For the United Kingdom, Continental Europe and Russia

■ Connecting a television with SCART terminal



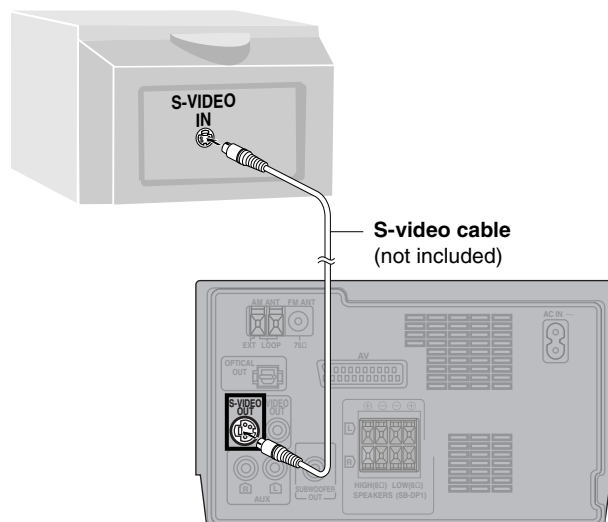
SCART terminal

To improve picture quality, you can change the video signal output from the AV terminal from "Video" to "RGB" to suit the type of television you are using (➡ page 10, QUICK SETUP or page 30, Video—AV Output).

Video cable



■ Connecting a television with an S-VIDEO IN terminal

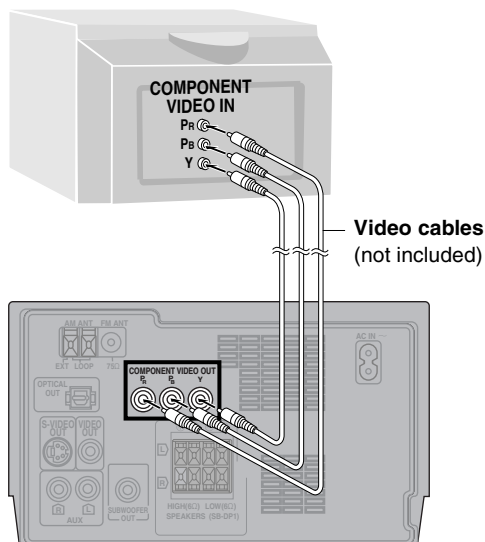


S-VIDEO OUT terminal

The S video terminal achieves a more vivid picture than the VIDEO OUT terminal by separating the chrominance (C) and luminance (Y) signals. (Actual results depend on the television.)

For Australia, N.Z. and Southeast Asia

■ Connecting a television with COMPONENT VIDEO IN terminals

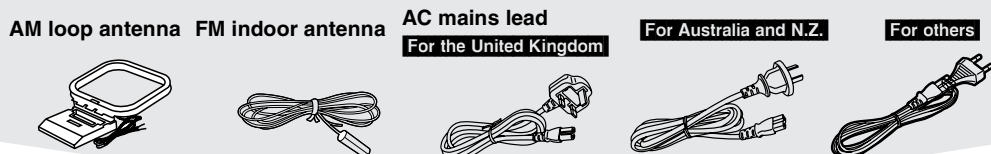


COMPONENT VIDEO OUT terminals

These terminals can be used for either interlace or progressive output (➡ page 10) and provide a purer picture than the S-VIDEO OUT terminal. Connection using these terminals outputs the color difference signals (P_B/P_R) and luminance signal (Y) separately in order to achieve high fidelity in reproducing colors. The description of the component video input terminals depends on the television or monitor (e.g. Y/P_B/P_R, Y/B-Y/R-Y, Y/C_B/C_R). Connect to terminals of the same color.

STEP 4 Connecting the antennas and AC mains lead

Connect the AC mains lead after all other connections are complete.



AM loop antenna

Stand the antenna up on its base. Keep loose antenna cord away from other wires and cords.

FM indoor antenna

Fix the other end of the antenna where reception is best.

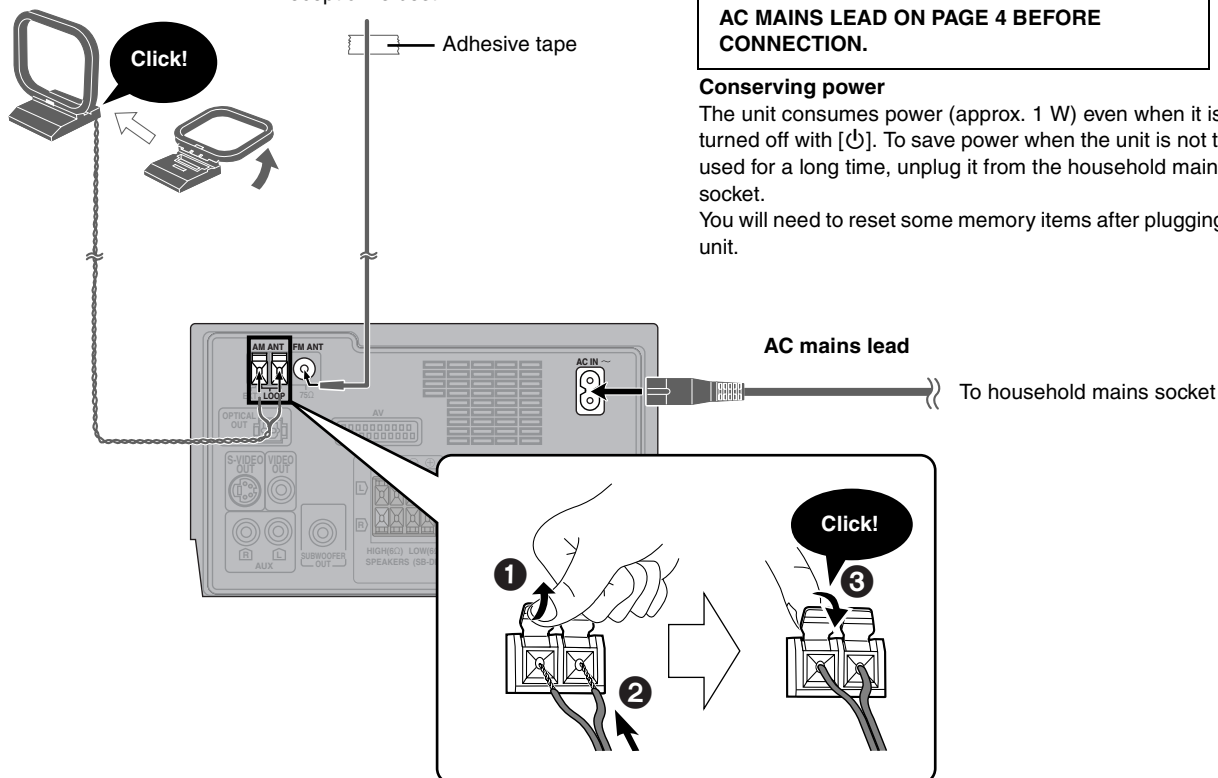
For the United Kingdom only

BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 4 BEFORE CONNECTION.

Conserving power

The unit consumes power (approx. 1 W) even when it is turned off with [⏻]. To save power when the unit is not to be used for a long time, unplug it from the household mains socket.

You will need to reset some memory items after plugging the unit.



STEP 5 The remote control

Remote control



Batteries



R6, AA, UM-3

- 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.

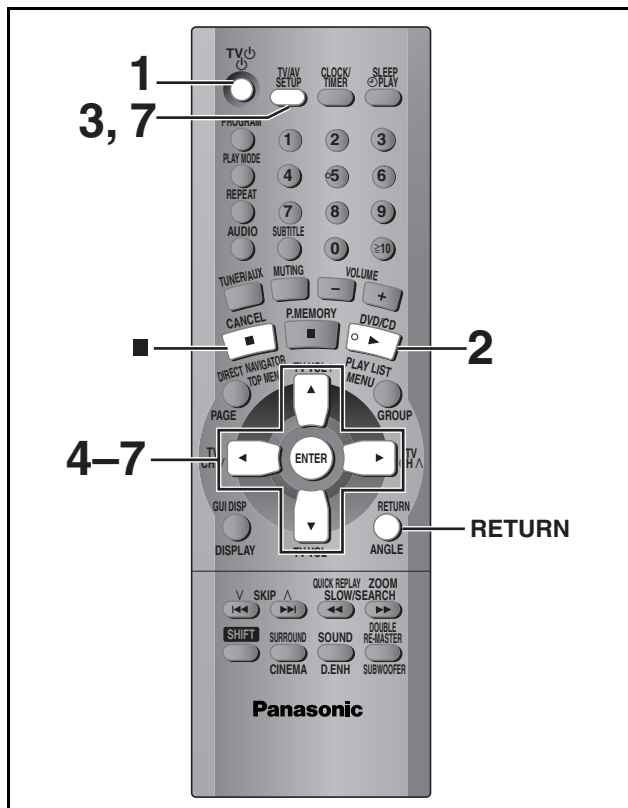
Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

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 sensor, avoiding obstacles, at a maximum range of 7 m directly in front of the unit.

STEP 6 QUICK SETUP

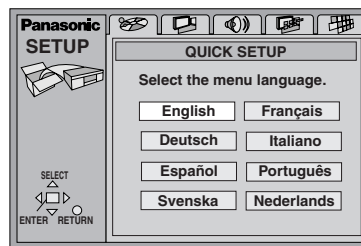


The **QUICK SETUP** screen appears when you press [SETUP] the first time after purchase and assists you to make necessary settings. You can access this screen again later if you need to (➡ page 30, Others—QUICK SETUP).

Preparation

Turn on the television and select the appropriate video input on the television to suit the connections for the unit.

- 1 Press [TV/Power] to turn on the unit.
- 2 Press [▶ DVD/CD] to select “DVD/CD” as the source.
Press [■] when a disc is in the tray.
- 3 Press [SETUP] to show the QUICK SETUP screen.



- 4 Press [▲, ▼, ◀, ▶] to select the menu language and press [ENTER].
- 5 Press [▲, ▼] to select “Yes” to continue and press [ENTER].
- 6 Press [▲, ▼, ◀, ▶] to select the item and press [ENTER].
 - Audio Language (➡ page 30)
 - Subtitle Language (➡ page 30)
 - TV Type (➡ below)
 - TV Aspect (➡ below)
 - AV Output*1 (➡ page 30)
 - Progressive Out*2 (➡ page 30)
 - PCM Digital Output (➡ page 30)
- 7 Press [ENTER] and then [SETUP] to end the settings.

*1 For the United Kingdom, Continental Europe and Russia

*2 For Australia, N.Z. and Southeast Asia

To return to the previous screen

Press [RETURN].

TV Type

Select to suit the type of television.

- Standard (Direct View TV) (factory preset)
- CRT Projector
- LCD TV/Projector
- Projection TV
- Plasma TV

TV Aspect

Select “4:3” (regular) or “16:9” (widescreen) to suit your television.

If you have a regular 4:3 television, you can also select how video on some discs is shown (➡ page 30, Video—TV Aspect).

4:3 Pan&Scan (factory preset)

Widescreen software is expanded to fill the screen of a 4:3 aspect television (unless prohibited by the producer of the disc).



4:3 Letterbox

Widescreen software is shown in the letterbox style on a 4:3 aspect television.

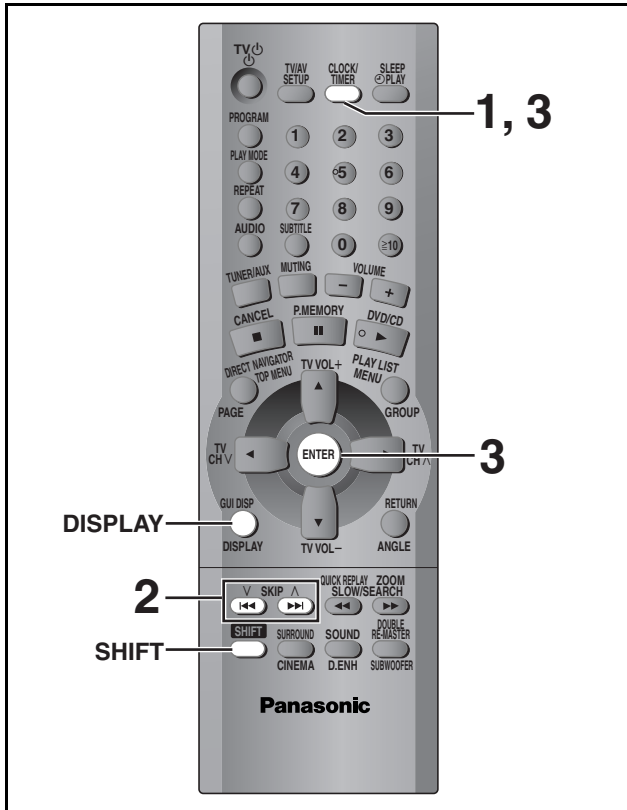


For Australia, N.Z. and Southeast Asia

To enjoy progressive video

- 1 Connect to the component video input terminals on a 480P compatible television (➡ page 8). (Video will not be displayed correctly if connected to an incompatible television.)
 - 2 In QUICK SETUP, set “Progressive Out” to “Enable”.
 - 3 Change “Video output mode” to “480P” (➡ page 25).
- All televisions manufactured by Panasonic and that have 480P input connectors are compatible. Consult the manufacturer if you have another brand of television.
 - If the unit is connected to the television through VIDEO OUT or S-VIDEO OUT, output will be interlace, irrespective of the settings.

STEP 7 Setting the time



This is a 24-hour clock.

- 1 Press **[CLOCK/TIMER]** to select “**CLOCK**”.

CLOCK -- : --

Each time you press the button:

CLOCK → **⊕PLAY** → Original display

- 2 Within 10 seconds
Press **[◀◀, v]** or **[▶▶, ^]** to set the time.

The time display can be changed quickly by holding down the buttons.

- 3 Press **[CLOCK/TIMER]** or **[ENTER]**.

The time is set and the original display is restored.

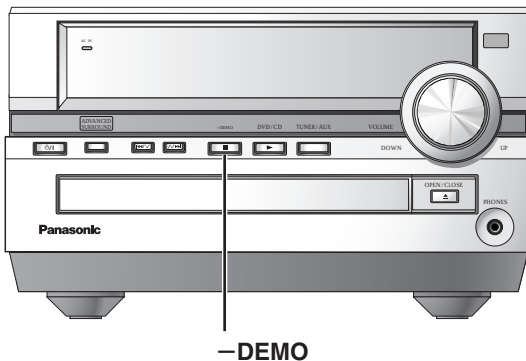
To display the time when the unit is off

Press **[SHIFT] + [DISPLAY]**.

The clock is shown for about 5 seconds.

Reset the clock regularly to maintain accuracy.

Turning DEMO off



A demonstration of the display is shown in standby mode if you have not set the clock.

You can reduce the power consumed in standby mode by turning the demonstration off.

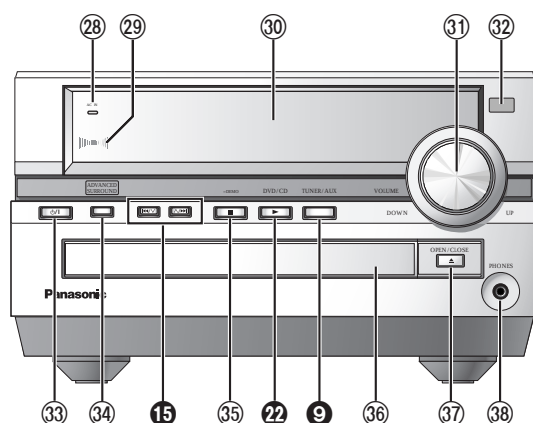
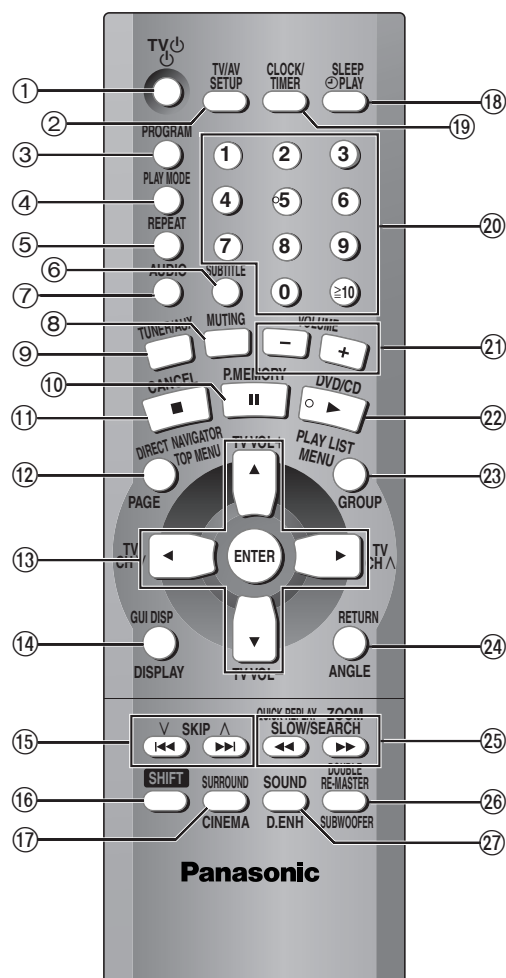
While the DEMO display is shown

Press and hold **[-DEMO] until “**DEMO OFF**” is displayed.**

DEMO OFF

Each time you press and hold the button:

DEMO OFF ↔ **DEMO ON**



Remote control

- ① Standby/on, TV standby/on switch [⏻, TV⏻]10, 28
 - ② Setup, TV/AV button [SETUP, TV/AV]10, 28
 - ③ Program button [PROGRAM]16, 26
 - ④ Play mode button [PLAY MODE]16, 26
 - ⑤ Repeat button [REPEAT]15
 - ⑥ Subtitle button [SUBTITLE]17
 - ⑦ Audio button [AUDIO]17
 - ⑧ Muting button [MUTING]28
 - ⑨ Tuner/Aux button [TUNER/AUX]26
 - ⑩ Pause, Position memory button [⏸, P.MEMORY]13
 - ⑪ Stop, Cancel button [■, CANCEL]13, 16
 - ⑫ Direct navigator, Top menu, Page button [DIRECT NAVIGATOR, TOP MENU, PAGE]14, 19, 22
 - ⑬ Cursor buttons [▲, ▼, ◀, ▶], Enter button [ENTER]10
- These buttons have the following functions.
- [▲, ▼]: TV volume buttons [TV VOL +, -]28
 - [◀, ▶]: TV channel buttons [TV CH v, ^]28
 - ⑭ GUI display, Display button [GUI DISP, DISPLAY]23, 28
 - ⑮ Skip, Preset channel buttons [◀◀ ▶▶, v SKIP ^]14, 26
 - ⑯ Shift button [SHIFT]

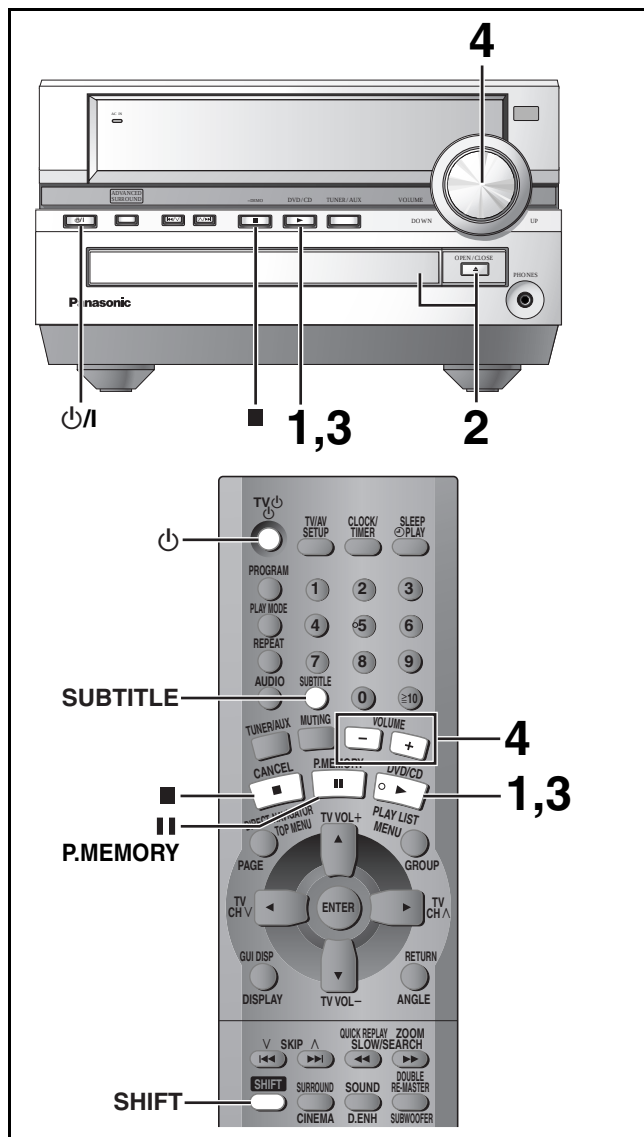
To use functions labeled in orange:
While pressing [SHIFT], press the corresponding button.

- ⑰ Advanced Surround, Cinema button [SURROUND, CINEMA]19
 - ⑱ Play timer, Sleep timer button [⌚PLAY, SLEEP]29
 - ⑲ Clock/Timer button [CLOCK/TIMER]11, 29
 - ⑳ Numbered buttons [1-9, 0, ≥10]14
 - ㉑ Volume buttons [-, +, VOLUME]13
 - ㉒ Play button [▶ DVD/CD]13
 - ㉓ Play list, Menu, Group button [PLAY LIST, MENU, GROUP]14, 15, 22
 - ㉔ Return, Angle button [RETURN, ANGLE]10, 17
 - ㉕ Slow/search, Tuning buttons [◀◀, ▶▶ SLOW/SEARCH]14, 26
- These buttons have the following functions.
- [◀◀]: Quick replay button [QUICK REPLAY]19
 - [▶▶]: Zoom button [ZOOM]18
 - ㉖ Double re-master, Subwoofer button [DOUBLE RE-MASTER, SUBWOOFER]27, 28
 - ㉗ Sound, Dialogue enhancer button [SOUND, D.ENH]19, 27

Main unit

Buttons ⑨, ⑮ and ㉒ function the same as the controls on the remote control.

- ㉘ AC supply indicator [AC IN]
This indicator lights when the unit is connected to the AC mains supply.
- ㉙ Advanced Surround indicator19
- ㉚ Display
- ㉛ Volume control [VOLUME, DOWN, UP]13
- ㉜ Remote control signal sensor
- ㉝ Standby/on switch [⏻/⏻]10
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.
- ㉞ Advanced Surround button [ADVANCED SURROUND]19
- ㉟ Stop, Demo button [■, -DEMO]11, 13
- ㊱ Disc tray13
- ㊲ Open/close button [▲ OPEN/CLOSE]13
- ㊳ Headphone jack [PHONES]29



RAM DVD-A DVD-V VCD CD WMA MP3 JPEG

Preparation

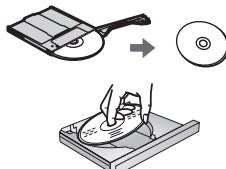
- Press [] to turn on the unit.
- Turn on the television and select the appropriate video input on the television to suit the connections for the unit.

1 Press [▶ DVD/CD] to select “DVD/CD” as the source.

- Press [] when a disc is in the tray.
- If the disc contains both audio data (WMA and MP3) and JPEG, check “Mixed Disc—Audio & Stills” setting in the SETUP menu (➔ page 30). Select “Stills (JPEG)” to play JPEG or “Audio (MP3/WMA)” to play WMA/MP3.

2 Press [▲ OPEN/CLOSE] to open the disc tray and place the disc.

- Remove TYPE 2 and 4 discs from their cartridges before use. **RAM**
- Label-up (With double-sided discs, load so the label for the side you want to play is facing up.)



Press [▲ OPEN/CLOSE] again to close and start play.
When a menu appears after inserting a HighMAT disc
➔ page 21

3 If play doesn't start after step 2

Press [▶ DVD/CD].

CD (CD text only) WMA MP3

Track information appears on the television. Press [SUBTITLE] to turn the display on or off.

4 Adjust the volume.

To pause play

Press [II] during play.

Press [▶ DVD/CD] to restart play.

To stop play

Press [] (➔ below, Resume function).

Note

• If “ ” appears on the television

The operation is prohibited by the unit or disc.

• It may take some time for play to start but this is normal.

• Multiple-channel signals are down-mixed to stereo (2-channel). (To enjoy multi-channel surround sound ➔ page 32)

If “D.MIX” flashes on the display DVD-A

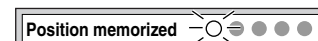
The DVD-Audio contains multiple-channel signals that cannot be down-mixed.

Position Memory function

RAM DVD-A DVD-V VCD CD WMA MP3 JPEG

During play

Press [SHIFT]+[P.MEMORY] to memorize a position.



Press again to replace the position.

This position is saved even if you turn the unit off, change the source or open the disc tray. When you turn the unit on, reselect “DVD/CD” or reinsert the disc whose position you memorized, “RESUME” lights on the display. Press [▶ DVD/CD] to start play from the memorized position. The position is cleared.

- You can memorize positions on up to five different discs at a time. When you memorize another position, the earliest position is replaced.

Resume function

“RESUME” lights on the display when the unit has recorded the position at which you stopped play.

Press [▶ DVD/CD] to start play from that position.

- The position is cleared when you:
 - Turn the unit off.
 - Select another source or open the disc tray.
- Press [] to clear the position.

Chapter Review

DVD-V

The following message appears immediately after you press [▶ DVD/CD] when “RESUME” is displayed. Press [▶ DVD/CD] while the message is displayed and the beginning portions of each chapter up to the current one are played.

Full play resumes from the point where you pressed [] or [SHIFT]+[P.MEMORY].

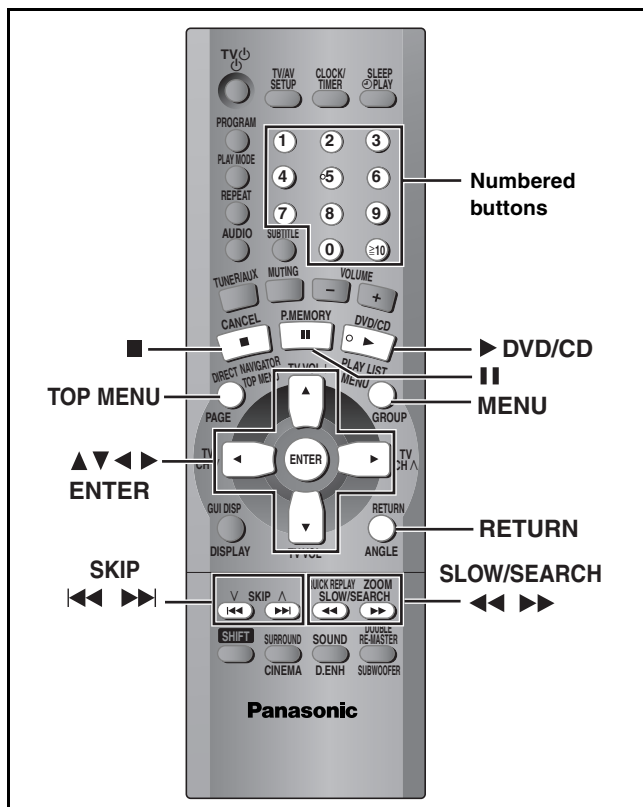
(This feature works only within a title.)

If you do not press [▶ DVD/CD], the message disappears and play starts from where you pressed [] or [SHIFT]+[P.MEMORY].

Press PLAY to Chapter Review

or

Press PLAY to Preview Chapters



When a menu appears on the television

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

Press the numbered buttons to select an item.

To select a 2-digit number

Example: To select item 23, press [≥ 10] $\Rightarrow$ [2] $\Rightarrow$ [3].

- When playing DVDs, you can also use [$\blacktriangle$, $\blacktriangledown$, $\blacktriangleleft$, $\blacktriangleright$] to select items. Press [ENTER] to confirm your selection.

To return to the menu screen

DVD-A **DVD-V** [TOP MENU]: Shows the first menu screen.

DVD-V [MENU]: Shows the menu screen.

VCD [RETURN]: Shows the menu screen.

Note

The disc continues to rotate while the menu is displayed even after you finish playing an item. Press [$\blacksquare$] when you finish to preserve the unit's motor and your television screen.

Skipping items

RAM **DVD-A** **DVD-V** **VCD** **CD** **WMA** **MP3**

During play or while paused

Press [$\blacktriangleleft\blacktriangleleft$] or [$\blacktriangleright\blacktriangleright$].

JPEG

Group skip

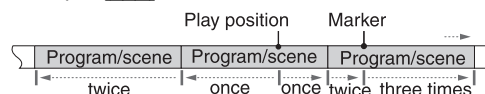
Press [$\blacktriangledown$] or [$\blacktriangle$].

Picture skip

Press [$\blacktriangleleft\blacktriangleleft$] or [$\blacktriangleright\blacktriangleright$].

- Each press increases the number of skips.

Example: **RAM**



Fast forward and rewind—SEARCH

RAM **DVD-A** **DVD-V** **VCD** **CD** **WMA** **MP3**

During play

Press [$\blacktriangleleft\blacktriangleleft$] or [$\blacktriangleright\blacktriangleright$].

- Audio will be heard during search for most discs. You can turn this audio off if you want to ($\Rightarrow$ page 30, Audio—Audio during Search).
- **DVD-V** You can slow down or speed up play ($\Rightarrow$ page 23).

Slow-motion play

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

DVD-A (Motion picture parts only)

While paused

Press [$\blacktriangleleft\blacktriangleleft$] or [$\blacktriangleright\blacktriangleright$].

Frame-by-frame viewing

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

DVD-A (Motion picture parts only)

While paused

Press [$\blacktriangleleft$] or [$\blacktriangleright$].

The frame changes each time you press the button.

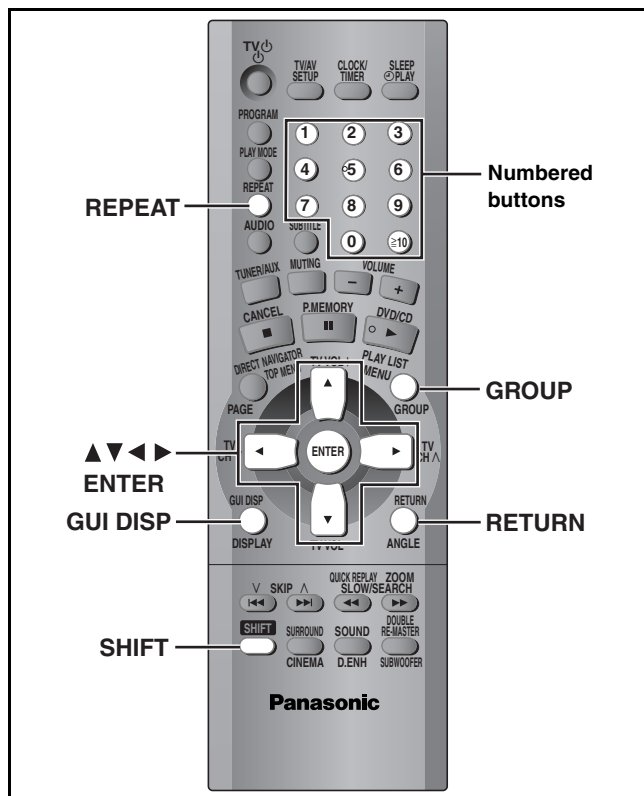
- The frames change in succession if you press and hold the button.
- Pressing [II] also activates forward frame-by-frame.

Notes

- The speed of search and slow-motion increases up to 5 steps.
- Press [$\blacktriangleright$ DVD/CD] to restart play.
- You cannot move backwards with Video CD during frame-by-frame and slow-motion.

When playing Video CDs with playback control

Pressing buttons to perform skip, search or slow-motion may take you to a menu screen.



Starting play from a selected item

RAM DVD-A DVD-V VCD CD WMA MP3 JPEG

Press the numbered buttons to select the item.

Play starts from the selected item.

To select a 2-digit number

Example: To select track 23, press [≥ 10] $\Rightarrow$ [2] $\Rightarrow$ [3].

WMA MP3 JPEG: [2] $\Rightarrow$ [3] $\Rightarrow$ [ENTER]

Note

This works only when stopped with some discs.

Repeat play

RAM DVD-A DVD-V VCD CD WMA MP3 JPEG

During play

Press [REPEAT].

Each time you press the button:

RAM

Program $\rightarrow$ All (Entire disc) $\rightarrow$ Off

• During play list play

Scene $\rightarrow$ Playlist $\rightarrow$ Off

DVD-V

Chapter $\rightarrow$ Title* $\rightarrow$ Off

VCD CD

Track $\rightarrow$ All (Entire disc) $\rightarrow$ Off

DVD-A WMA MP3

Track $\rightarrow$ Group* $\rightarrow$ Off

JPEG

Group $\rightarrow$ Off

*During all group (DVD-A), program and random play

“All” is displayed.

• You can also repeat play of content and group on HighMAT discs.

To repeat only your favorite tracks/chapters

DVD-A DVD-V VCD CD WMA MP3

Start program play ($\Rightarrow$ page 16) and press [REPEAT] to select the repeat mode.

A-B repeat play

RAM DVD-A DVD-V VCD CD WMA MP3

You can repeat a section between points A and B within a program, title or track.

1 During play

Press [GUI DISP] until the unit information screen is displayed

($\Rightarrow$ page 24).

2 Press [Δ , ∇] to select the play menu.

Example: DVD-V



A-B Repeat

3 Press [$\leftarrow$, $\rightarrow$] to select “A-B Repeat” and

① Press [ENTER] at the starting point (A).

② Press [ENTER] at the finishing point (B).



A-B repeat starts.



To return to the normal play

Press [ENTER] again.

To clear the menus

Press [RETURN] until the menu disappears.

Note

• Subtitles recorded around A and B may fail to appear.

• The end of an item becomes point B when it is reached.

• A-B repeat is canceled when you press [QUICK REPLAY].

Selecting groups to play

DVD-A WMA MP3 JPEG

1 Press [SHIFT]+[GROUP].

Example: MP3



Track number in group
Group number

2 Press the numbered buttons to select the group and press [ENTER].

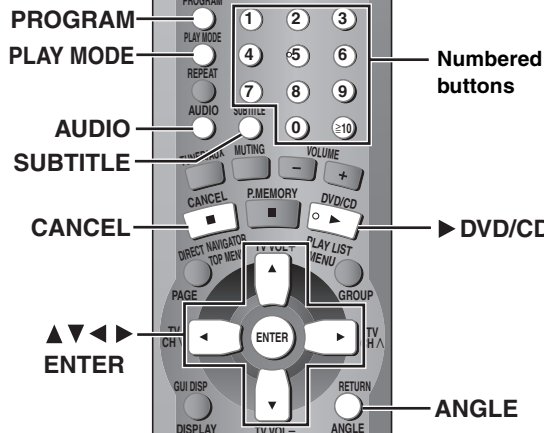
3 Press the numbered buttons to select the track/picture number and press [ENTER].

DVD-A

Playing all the groups in succession ($\Rightarrow$ page 16, All group play)

Playing bonus groups

Some discs contain bonus groups. If a password screen appears after selecting a group, enter the password with the numbered buttons. Refer also to the disc's jacket.



While stopped
Press [PLAY MODE].
 Each time you press the button:
 All group (**DVD-A**) → Random
 ↑ Off (Normal play) ↓

DVD-A

GROUP ALL

DVD-A **DVD-V** **VCD** **CD**

1 **DVD-A** **DVD-V**

Example: **DVD-V**



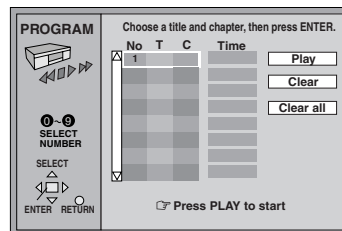
- You can select more than one group.
- To enter all groups, select "All" using [◀, ▶] and press [ENTER].
- To deselect a group, press the numbered buttons corresponding to the group you want to clear.

2 Press [▶ DVD/CD].

DVD-A DVD-V VCD CD WMA MP3

1 While stopped
Press [PROGRAM].

Example: **DVD-V**



2 Press the numbered buttons to select a title, chapter, group or track (WMA MP3 then press [ENTER]).

T 2 C 1 P: 1
PGM | | |
Title No. Chapter No. Program No.

- **To select a 2-digit number**
Example: To select item 25, press $\geq 10 \Rightarrow [2] \Rightarrow [5]$.
The screenshot shows a menu with 'WMA' and 'MP3' at the top. Below them is a list of items: '01', '02', '03', '04', '05', '06', '07', '08', '09', '10', '11', '12', '13', '14', '15', '16', '17', '18', '19', '20', '21', '22', '23', '24', '25', '26', '27', '28', '29', '30'. Item '25' is highlighted with a white background. At the bottom, there are two buttons: 'ENTER' and 'EXIT'.
- Repeat this step to program other items.
- **To select an item using the cursor buttons**
Press [ENTER] and [$\blacktriangle$, $\blacktriangledown$] to select an item, then press [ENTER] again to register the number.
All the items in the selected disc, title or group are selected when you select "ALL".

3 Press [▶ DVD/CD].

Press [▲, ▼] to select an available item, then repeat step 2.

- 1 Select the item you want to clear with [▲, ▼].
- 2 Press [SHIFT]+[CANCEL], or select "Clear" with [▲, ▼, ◀, ▶] and press [ENTER].

Select "Clear all" with [▲, ▼, ◀, ▶] and press [ENTER].

● **DVD-V** **WMA** **MP3**

- The program is cleared when you switch the unit to standby, open the disc tray or select another source.

Note

- **DVD-A** If you select bonus groups, you will have to enter a password (➡ page 15).
- Disable HighMAT disc play to use program play. In the SETUP menu, set "HighMAT" to "Disable" (➡ page 30) and perform the necessary operations (➡ above).

- “—” or “—” is displayed instead of the language number in circumstances such as when no language is recorded on the disc.
- VCD** (SVCD only)
- Soundtrack and subtitle numbers may change even if corresponding soundtracks are not recorded.

Soundtracks

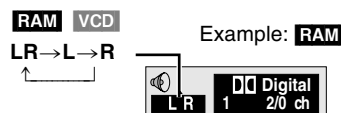
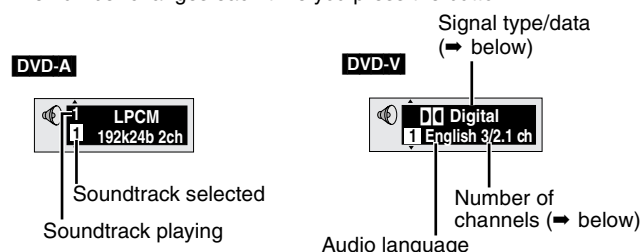
RAM DVD-A DVD-V VCD

(Discs with multiple soundtracks)

During play

Press [AUDIO].

The number changes each time you press the button.



- You can also use this button to turn the vocals on and off on karaoke discs. Read the disc's instructions for details.

DVD-A

- Play restarts from the beginning of the soundtrack when changing soundtracks that are accompanied by still pictures.
- Even if a second soundtrack isn't recorded, two soundtrack numbers will normally be shown when you press [AUDIO]. The soundtrack currently playing is number 1.

Signal type/data

LPCM/PPCM/□□ Digital/DTS/MPEG: Signal type

k (kHz): Sampling frequency

b (bit): Number of bits

ch (channel): 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

Subtitles

DVD-A (Motion picture parts only)

DVD-V

VCD (SVCD only)

(Discs with multiple subtitle languages)

You can change the subtitle language and turn the subtitles on and off.

RAM

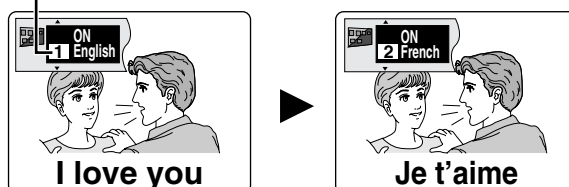
You can turn the subtitles on and off.

During play

Press [SUBTITLE].

The number changes each time you press the button.

Example: **DVD-V**



- In some cases, the subtitle language is not changed to the selected one immediately.

To clear/display the subtitles

- 1 Press [SUBTITLE].
- 2 Press [▶]. (**DVD-A DVD-V VCD**)
- 3 Press [▲, ▼] to select "OFF" or "ON".

■ Changing the position and brightness of the subtitles (→ page 25)

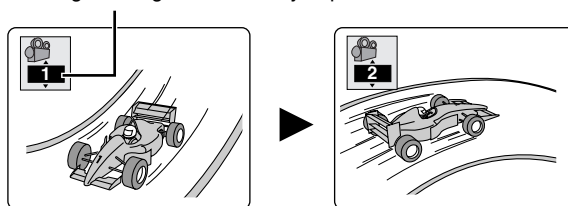
Angles

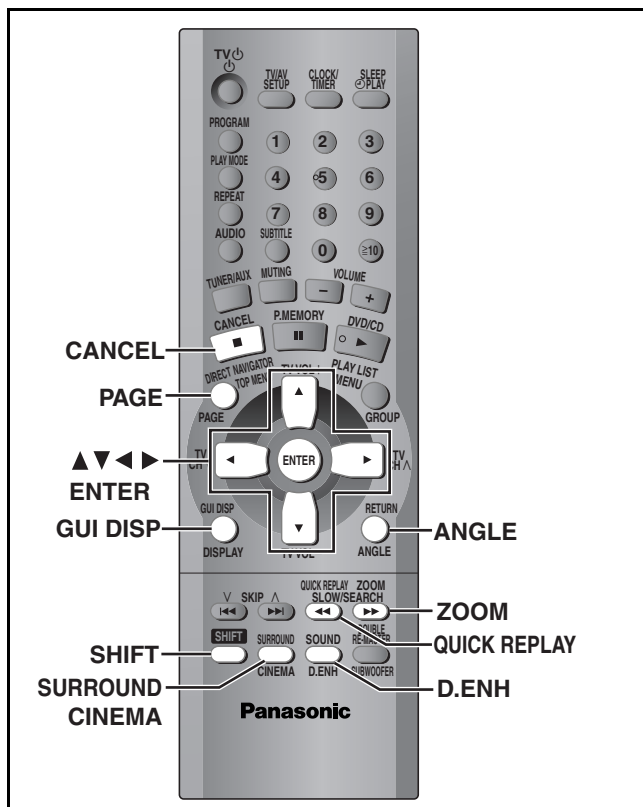
DVD-A DVD-V

During play

Press [SHIFT]+[ANGLE].

The angle changes each time you press the buttons.





Marking places to play again

RAM **DVD-A** **DVD-V** **VCD** **CD** **WMA** **MP3** **JPEG**

You can mark a position so you can return to it easily at a later time.

- 1** During play
Press **[GUI DISP]** until the unit information screen is displayed
(→ page 24).
- 2** Press **[▲, ▼]** to select the play menu.
Example: **DVD-V** 
Marker
- 3** Press **[◀, ▶]** to select “Marker” and press **[ENTER]**.
RAM
Press **[▶]** to select an asterisk (*).
- 4** Press **[ENTER]** at the point you want to mark.

To mark another position

Up to 5 points (**RAM** only: up to 999 points)

- 1 Press **[▶]** to select “*”.
- 2 Press **[ENTER]** at the point.

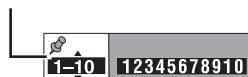
To recall or erase a marker

- 1 Press **[◀, ▶]** to select a marker.
- 2 Press **[ENTER]** to recall or press **[SHIFT]+[CANCEL]** to erase.

RAM

To mark the eleventh point and beyond

- 1 Press **[◀, ▶]** to select the marker pin icon.



- 2 Press **[▲, ▼]** to select “11–20”.

You can select the next group when the current group is full.

Note

Markers added with this unit clear when you switch the unit to standby, change the source, or open the disc tray.

Variable Zoom function

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

DVD-A (Motion picture parts only)

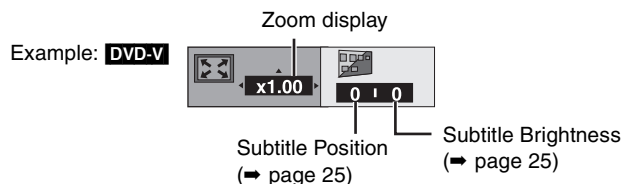
Change the zoom ratio so the picture expands to the optimum size to fill the screen.

Preparation

Change the setting “TV Aspect” to suit your television (→ page 30).

During play

Press **[SHIFT]+[ZOOM]** to select the aspect ratio.



Each time you press the buttons:

4:3 Standard → **European Vista** → **16:9 Standard**

Cinemascope2 ← **Cinemascope1** ← **American Vista**

- Refer to the disc's instructions and “Screen size” below for the aspect ratio of the picture.

To restore the original ratio

Press **[SHIFT]+[ZOOM]** until the ratio returns to 1.00.

- The ratio also returns to 1.00 when you open the disc tray, change the source or switch the unit to standby.
- The ratio may return to 1.00 when a menu is displayed.

Making fine adjustments to the zoom ratio

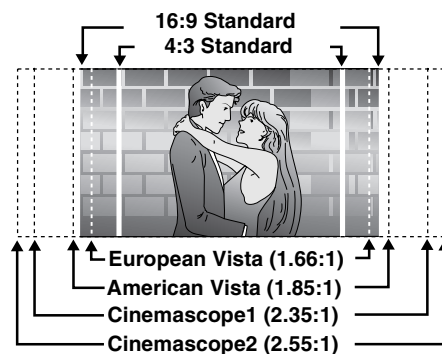
While the ZOOM icon is displayed

Press **[▲, ▼]**.

The ratio changes in 0.01 units between 1.00 and 1.60 and in 0.02 units between 1.60 and 2.00.

Screen size

Movies are made using a variety of screen sizes.



Advanced surround

RAM DVD-A DVD-V VCD CD WMA MP3

(only for 2 or more channels)

Enjoy a surround-like effect when using 2 front speakers (SP) or headphones (HP). The effect broadens when playing discs with surround effects and sound seems to come from speakers on either side of you.

Press [SURROUND].



Each time you press the button:

- **ADV SURR 1:** Natural effect
- ↓
- ADV SURR 2:** Emphasized effect (factory preset)
- ↓
- SURR OFF:** Cancel

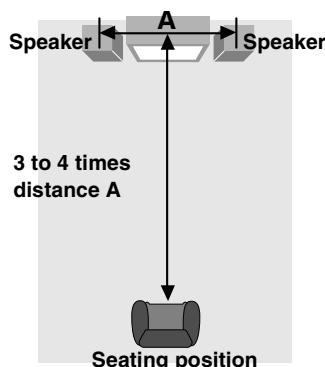
- Use the Audio Menu (→ page 24) to change the SP/HP mode.
- This feature also works when you select "TUNER" or "AUX" as the source (only for 2 or more channels).

Optimum seating position

<When using the television's speakers>

Distance A=Television's width

- This does not work or has less effect with some discs.
- Turn off if it causes distortion.
- Do not use in combination with surround effects on other equipment.

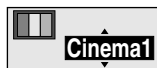


Cinema

RAM DVD-A DVD-V VCD JPEG

Change the picture quality for movie viewing.

Press [SHIFT]+[CINEMA].



Each time you press the buttons:

- **Cinema1:** Mellows images and enhances detail in dark scenes.
- ↓
- Cinema2:** Sharpens images and enhances detail in dark scenes.
- ↓
- Normal:** Normal mode (factory preset)

- Use the Picture Menu (→ page 25) to make finer adjustments.

Selecting still pictures—Page Skip

DVD-A

During play or while paused

Press [SHIFT]+[PAGE].

The page changes each time you press the buttons.

PAGE 1

Dialogue enhancer

DVD-V

(Dolby Digital, DTS, 3 or more channels, where the dialogue is recorded in the center channel)

This makes the dialogue in movies easier to hear.

Press [SHIFT]+[D.ENH].

Each time you press the buttons:

ON ↔ OFF (Factory preset)



- This does not work or has less effect with some discs.

Rotating pictures

JPEG

You can rotate pictures ninety degrees.

- 1 While a picture is displayed
Press [SHIFT]+[ANGLE].
- 2 Press [▲, ▼] to select "Rotate right" or "Rotate left" and press [ENTER].

To clear the popup screen

Press [SHIFT]+[ANGLE].

Replaying a scene—QUICK REPLAY

RAM DVD-A DVD-V VCD CD WMA MP3

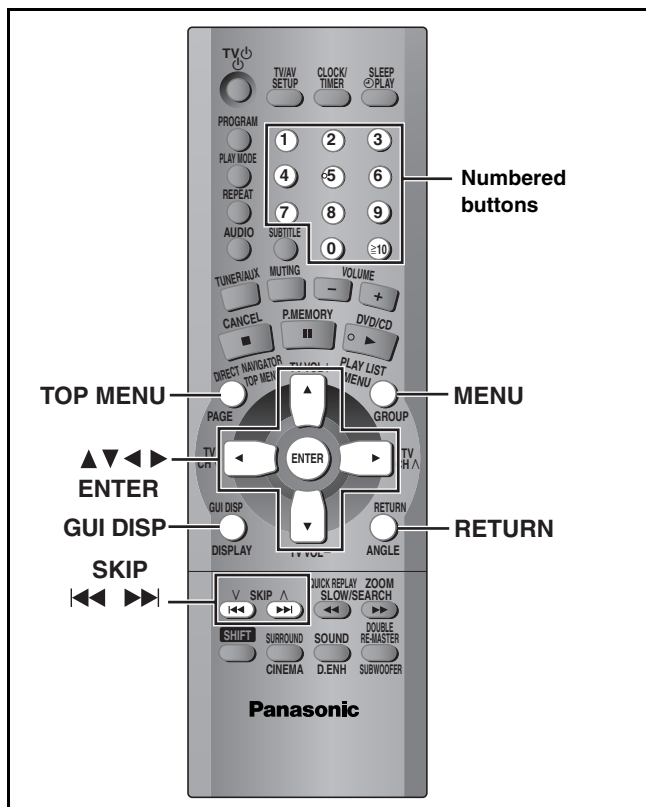
Skip back a few seconds within the current item (program, track or title).

JPEG: Skip back a few pictures.

During play

Press [SHIFT]+[QUICK REPLAY].

- This feature may not work while playing some parts of a disc or at all with some discs.



Playing WMA/MP3/JPEG and CD text

If the disc contains both audio data (WMA and MP3) and JPEG, check "Mixed Disc—Audio & Stills" setting in the SETUP menu (→ page 30). Select "Stills (JPEG)" to play JPEG or "Audio (MP3/WMA)" to play WMA/MP3.

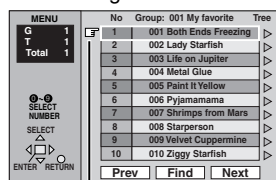
CD (CD text only) WMA MP3 JPEG

These menus help you find items to play.

1 Press [TOP MENU].

Example: MP3

Audio navigation menu



"f" indicates the track currently playing.

2 Press [▲, ▼] to select a track or [▲, ▼, ◀, ▶] to select a picture, and press [ENTER].

To show other pages, press [▲, ▼, ◀, ▶] to select "Prev" or "Next" and press [ENTER].

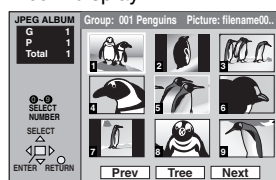
- After listing all the tracks in one group or pictures, the list for the next group appears.

To exit the audio navigation menu/album display

Press [TOP MENU].

Example: JPEG

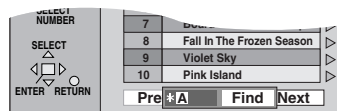
Album display



Track title search CD (CD text only) WMA MP3

Example: finding a track including the word "LOVE"

- While the menu is displayed
Press [▲, ▼] to select "Find" and press [ENTER].



- Press [▲, ▼] to select "L" and press [ENTER].

Characters change in alphanumeric order each time you press [▲].

Repeat this step to enter "O", "V", and "E".

- Press [◀, ▶] to skip between A, E, I, O, and U.

- Only uppercase appear but the search also includes lower case.

- Press [◀] to erase a character.

- You can erase the asterisk (*) to search for the first word in a title.

- You can enter numbers with the numbered buttons.

- Press [▶] to select "Find" and press [ENTER].

The search results screen appears.

- Press [▲, ▼] to select the track and press [ENTER].

To return to the audio navigation menu

Press [RETURN].

To use the tree screen to find a group WMA MP3 JPEG

- While the menu is displayed

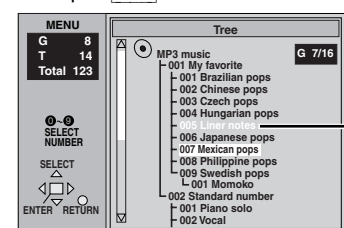
WMA MP3

Press [▶] while a track is highlighted to display a tree screen.

JPEG

Press [▲, ▼, ◀, ▶] to select "Tree" and press [ENTER].

Example: MP3



You cannot select groups that contain no compatible files.

- Press [▲, ▼, ◀, ▶] to select a group and press [ENTER].

The audio navigation menu/album display for the group appears.

To return to the audio navigation menu/album display

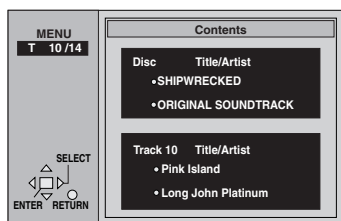
Press [RETURN].

To use the contents screen to find a track

CD (CD text only)

You can use the text information recorded on these discs to find a track to play.

- 1 While the menu is displayed
Press [▶] while a track is highlighted to display the contents screen.



- 2 Press [◀, ▶] to move through the tracks and press [ENTER].

To return to the audio navigation menu

Press [RETURN].

WMA/MP3/JPEG and CD text information

- 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.
- The order tracks appear in the menus may differ to the order shown on your computer.

WMA

- Noise may occur when playing WMA files.
- You cannot play WMA files that are copy protected.

MP3

- This unit is not compatible with ID3 tags.
- If you play an MP3 track that includes still picture data, it will take some time before the music itself starts playing and the elapsed time will not be displayed during this time. Even after the track starts, the correct play time will not be displayed.

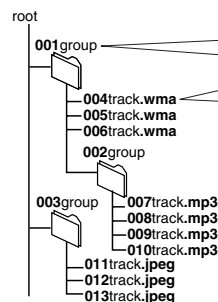
JPEG

- To view JPEG files on this unit:
– Take them on a digital camera that meets the DCF (Design rule for Camera File System) standard. Some digital cameras have functions that are not supported by the DCF standard like automatic picture rotation which may render a picture un-viewable.
– Do not alter the files in any way or save them under a different name.

This unit cannot display moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (i.e. TIFF) or play associated sound.

Order of play

WMA MP3 JPEG



Naming folders and files

Prefix folder and file names with 3-digit numbers in the order you want to play them.

Extension

004track.wma (or .WMA)

The extension for MP3 is ".mp3" or ".MP3".

The extension for JPEG is ".JPG", ".jpg", ".JPEG" or ".jpeg".

CD (CD text only)

When making your own CD text discs

The unit plays the tracks in the order you record them so you do not have to prefix the titles with numbers.

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

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.



Playing HighMAT discs

A menu appears after you insert the disc.

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

When you 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].

- **To return to the menu above the current one**

Press [RETURN].

- **To change the menu background**

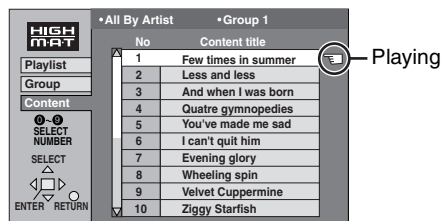
Press [GUI DISP].

The background changes to the one recorded on the disc.

Selecting from the lists

- 1 While playing

Press [MENU].



- 2 Press [◀] then [▲, ▼] to switch between the play list, group and content lists.

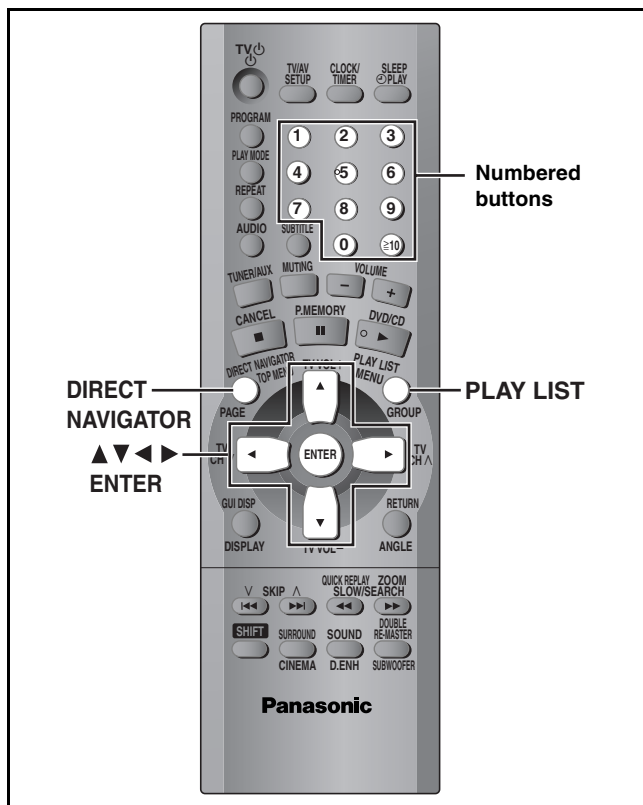
- 3 Press [▶] then [▲, ▼] to select an item and press [ENTER].

To exit the list screen

Press [MENU].



HighMAT and the HighMAT logo are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

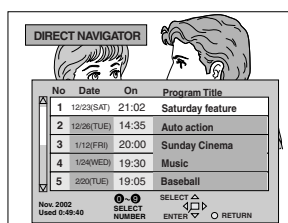


RAM

Selecting a program to play —DIRECT NAVIGATOR

Use the program list to find programs to play.

1 Press [DIRECT NAVIGATOR].



2 Press [▲, ▼] to select the program.

The selected program plays in the background.

- You can select programs with the numbered buttons.

To select a 2-digit number

Example 23: [≥10] → [2] → [3]

3 Press [ENTER].

The program being played in the background continues.

To clear the program list

Press [DIRECT NAVIGATOR].

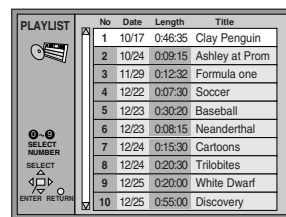
Note

- Titles appear only if you have entered them.
- You cannot change program and disc titles.

Using the play list menu

You can play a group of scenes, a play list, created on other equipment such as a DVD video recorder.

1 Press [PLAY LIST].



2 Press [▲, ▼] to select the play list.

- You can select play lists with the numbered buttons.

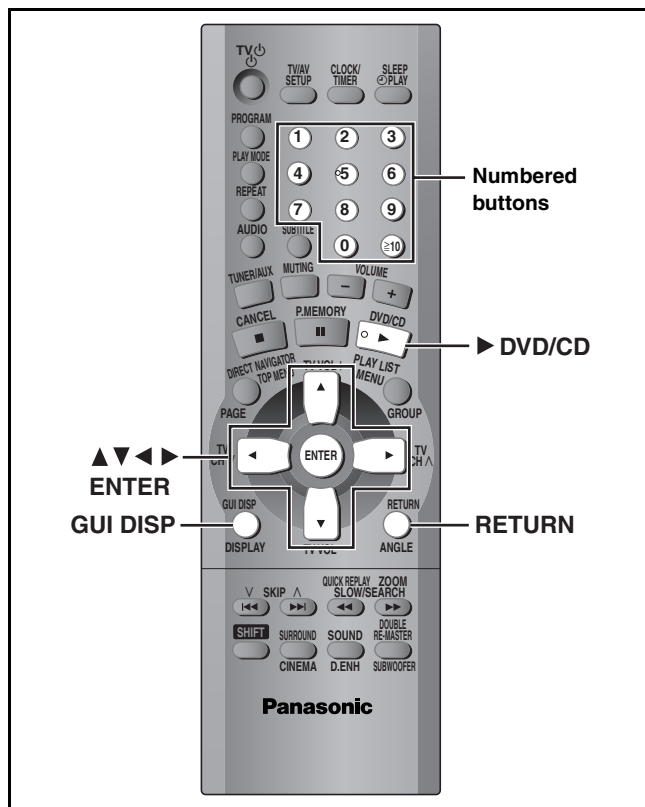
To select a 2-digit number

Example 23: [≥10] → [2] → [3]

3 Press [ENTER] to start play.

To clear the play list screen

Press [PLAY LIST].



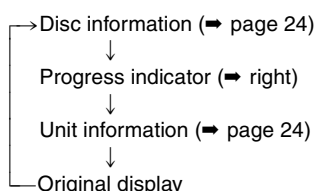
RAM DVD-A DVD-V VCD CD WMA MP3 JPEG

GUI screens are menus that contain information about the disc or unit. These menus allow you to perform operations by changing this information.

Common procedures

1 Press [GUI DISP].

Each time you press the button:



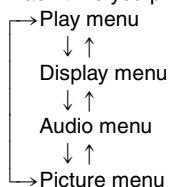
2

Unit information only

While the leftmost icon is highlighted

Press [▲, ▼] to select the menu.

Each time you press the button:



3 Press [◀, ▶] to select the item.

4 Press [▲, ▼] to select the setting.

- Items with “▲” or “▼” above and below can be changed by [▲, ▼].
- Press [ENTER] if the setting does not change after pressing [▲, ▼].
- Some items require different operations. Read the explanations on the following pages.

For your reference

- Depending on the condition of the unit (playing, stopped, etc.) and the type of software you are playing, there are some items that you cannot select or change.
- When numbers are displayed (e.g. title No.), the numbered buttons are also effective for setting. After entering the numbers, press [ENTER] to register the setting.

To clear the menus

Press [RETURN] until the menus disappear.

■ To change the position of the icons

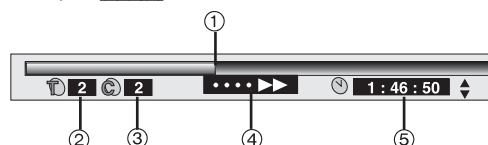
- 1 Press [◀, ▶] to select the rightmost icon.
- 2 Press [▲, ▼] to move the icons.



Progress indicator

Indicates how far you have played through an item.

Example: **DVD-V**



① **Current position** RAM DVD-A DVD-V VCD CD WMA MP3

② **PG: Program number** RAM

PL: Play list number RAM

T: Title number DVD-V

Track number VCD CD

G: Group number DVD-A WMA MP3 JPEG

③ **T: Track number in group** DVD-A WMA MP3

C: Chapter number DVD-V

P: Picture number JPEG

④ **Condition – play, pause, or slow/search**

RAM DVD-A DVD-V VCD CD WMA MP3

Play speed (⇒ below)

⑤ **Changing the time display** RAM DVD-A DVD-V VCD CD

Press [▲, ▼] to show the elapsed play time or remaining time for the program, play list, track or title (or chapter during program and random play).

Elapsed play time VCD (SVCD only) WMA MP3

(display only, cannot be changed)

Changing play speed

DVD-V (Dolby Digital only)

You can slow down or speed up play.

During play

Press [◀] (slower) or [▶] (faster).

There are five speeds:

×0.8 ↔ ×0.9 ↔ ×1.0 (normal speed) ↔ ×1.2 ↔ ×1.4

- After you change the speed:

- Output is in stereo,
- Advanced surround does not work,
- Digital output switches to PCM.

- Sound is stereo as long as “×1.0” is orange.

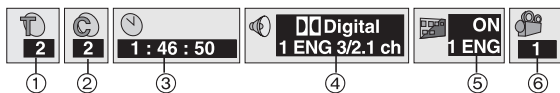
To return to normal play

Press [▶ DVD/CD] or [ENTER].

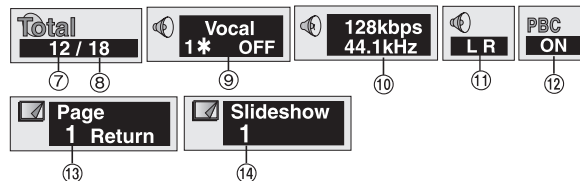
Normal play is also restored when you return the speed to ×1.0 and clear the progress indicator.

Unless otherwise indicated, select items with [◀, ▶] and change with [▲, ▼].

Disc information



①	PG: Program number RAM PL: Play list number RAM G: Group number DVD-A WMA MP3 JPEG T: Title number DVD-V Track number VCD CD	[▲, ▼] ↓ [ENTER]
②	T: Track number in group DVD-A WMA MP3 C: Chapter number DVD-V P: Picture number JPEG	
③	Time RAM DVD-A DVD-V Select a position to start play by specifying a time. Changing the time display RAM DVD-A DVD-V VCD CD VCD (SVCD only) WMA MP3 : Display only → Elapsed play time for the program, play list, title or track ↓ ↑ Remaining time for the group (DVD-A) or disc (VCD CD) ↓ ↑ → Remaining time for the program, play list, title or track	Numbered buttons ↓ [ENTER]
④	Soundtrack DVD-A DVD-V (⇒ page 17)	
⑤	Subtitle language DVD-A DVD-V VCD (SVCD only) (⇒ page 17) Subtitles on/off RAM DVD-A DVD-V VCD (SVCD only) Track information on/off CD (CD text only) WMA MP3 Picture information JPEG Full: Group title, picture title, picture size, file size, date of shooting, and camera model used*. Date: Date of shooting only. OFF: No display. * Actual displays depend on the camera and data.	
⑥	Angle number DVD-A DVD-V (⇒ page 17) Rotating pictures JPEG (⇒ page 19) 0 ↔ 90 ↔ 180 ↔ 270 ↑ ↓	



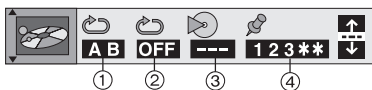
⑦	Track/picture number in disc WMA MP3 JPEG	[▲, ▼] ↓ [ENTER]
⑧	Total number of tracks/pictures on disc WMA MP3 JPEG	Display only
⑨	Karaoke vocal on/off DVD-V (Karaoke DVD only) If a DVD title is a duet, select V1 or V2 to duet with the unit.	
⑩	Current bitrate (kbps) Current sampling frequency (kHz) WMA MP3	Display only
⑪	Audio mode RAM VCD LR ↔ L ↔ R ↑ ↓	
⑫	Menu play VCD (with playback control only)	Display only
⑬	Still picture number DVD-A ● To return to page 1 [◀, ▶] → Select "Return" → [ENTER]	
⑭	Slideshow DVD-A Picture number	Display only
	Slideshow setting on/off JPEG Slideshow timing JPEG 0 – 30 sec	

Audio/Subtitle language

ENG: English FRA: French DEU: German ITA: Italian ESP: Spanish NLD: Dutch	SVE: Swedish NOR: Norwegian DAN: Danish POR: Portuguese RUS: Russian JPN: Japanese	CHI: Chinese KOR: Korean MAL: Malay VIE: Vietnamese THA: Thai *: Others
--	---	--

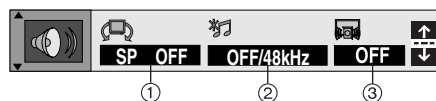
Unit information

Play menu



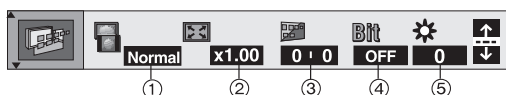
①	A-B repeat (⇒ page 15) RAM DVD-A DVD-V VCD CD WMA MP3	[ENTER]
②	Repeat mode (⇒ page 15) RAM DVD-A DVD-V VCD CD WMA MP3 JPEG	
③	Play mode (⇒ page 16) DVD-A DVD-V VCD CD WMA MP3 ---: Normal play PGM: Program play RND: Random play ALL: All group play (DVD-A)	Display only
④	Marker RAM DVD-A DVD-V VCD CD WMA MP3 JPEG	⇒ page 18

Audio menu



①	Advanced surround (VSS) (⇒ page 19) RAM DVD-A DVD-V VCD CD WMA MP3 ● VSS mode SP ↔ HP ● SP/HP level 1 ↔ 2 ↔ OFF ↑ ↓
②	Double re-master (⇒ page 27) RAM DVD-A DVD-V CD WMA MP3
③	Dialogue enhancer on/off (⇒ page 19) DVD-V

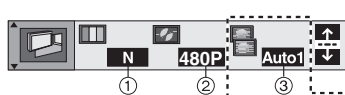
Display menu



①: For Australia, N.Z. and Southeast Asia

①	4:3 Aspect RAM DVD-A DVD-V VCD JPEG Select how to show images made for 4:3 aspect screens on a 16:9 aspect television. Normal: laterally stretches images made for a 4:3 screen. Auto: expands suitable 4:3 letterbox images to fill more of the screen. Other images appear in full in the center of the screen. Shrink: images appear in the center of the screen. Zoom: expands all images to fill the screen. If your television has a similar feature, use it instead for a better effect.
②	Zoom (⇒ page 18) RAM DVD-A DVD-V VCD [ENTER] ↓ [◀▶] ↓ [ENTER]
③	Making fine adjustments to the zoom ratio Subtitle position/Subtitle brightness DVD-A DVD-V • Position (0 to -60): in 2 unit steps • Brightness (Auto*/0 to -9) * The brightness adjusts automatically against the background.
④	Bitrate display on/off RAM DVD-A DVD-V VCD During play: shows the bitrate (approximate values) of the video being played While paused: shows the data volume of the frame and type of picture (⇒ page 4, Glossary—I/P/B) To change the bitrate display: Current bitrate A record of bitrates for a sampling period.
⑤	OSD brightness (-3 to +3) Adjust the brightness of the on-screen displays.

Picture menu



Only when "PROGRESSIVE" is on

② ③: For Australia, N.Z. and Southeast Asia

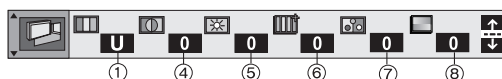
①	Picture mode (⇒ page 19, Cinema) RAM DVD-A DVD-V VCD JPEG N: Normal mode S: Soft mode (Soft picture with fewer video artifacts) F: Fine mode (Details are sharper) C1: Mellows images and enhances detail in dark scenes C2: Sharpens images and enhances detail in dark scenes For the United Kingdom, Continental Europe and Russia U: User mode (⇒ below) For Australia, N.Z. and Southeast Asia U1/U2: User mode (⇒ below)
②	Video output mode RAM DVD-A DVD-V VCD JPEG 480I: Interlace video 480P: Progressive video ("PROGRESSIVE" appears on the display.) You can change the video output mode only when "Progressive Out (Component)" in the Video menu is set to "Enable" (⇒ page 30).
③	Transfer mode RAM DVD-A DVD-V VCD Select the method of conversion for progressive output to suit the type of material being played. Auto 1 (normal): for viewing film material Auto 2: for viewing film material (the same as Auto 1, but able to convert 30-frame-per-second progressive video) Video: for video material

To change the user mode For Australia, N.Z. and Southeast Asia

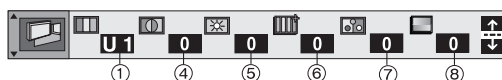
- Select User mode and press [▶] to highlight the number.
- Press [▲, ▼] to select "1" or "2".



U: For the United Kingdom, Continental Europe and Russia

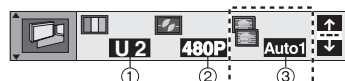


U1: For Australia, N.Z. and Southeast Asia



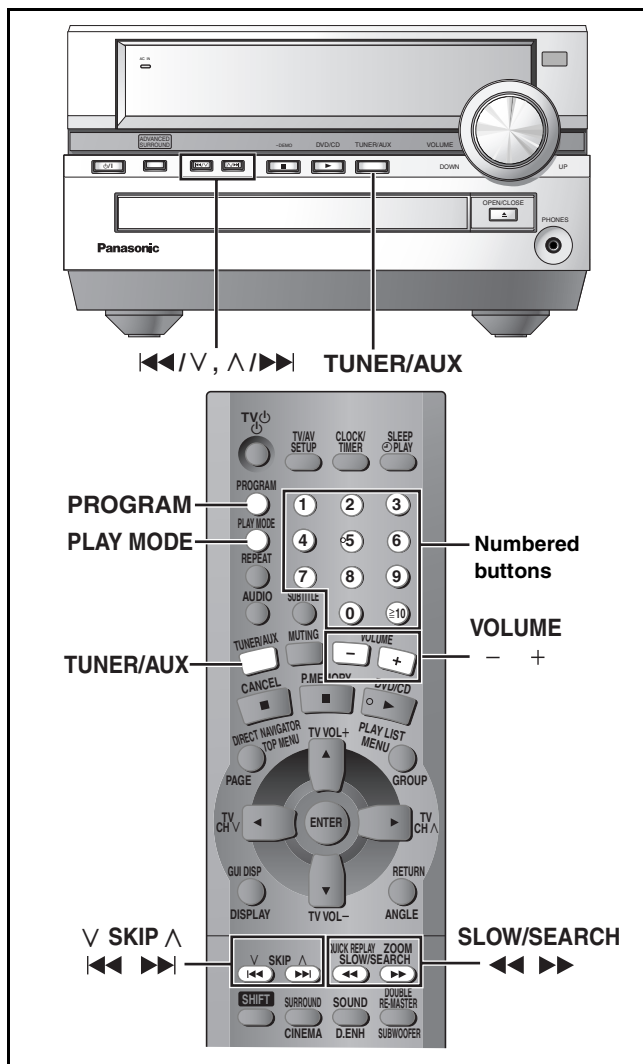
④	Contrast (-7 to +7) Increases the contrast between light and dark parts of the picture.
⑤	Brightness (0 to +15) Brightens the picture.
⑥	Sharpness (-7 to +7) Adjusts the sharpness of the edges of the horizontal lines.
⑦	Colour (-7 to +7) Adjust the shade of the picture's colour.
⑧	Gamma (0 to +5) Adjust the emphasis of outlines.

U2: For Australia, N.Z. and Southeast Asia



①-③ (⇒ above)

Only when "PROGRESSIVE" is on



Manual tuning

- 1 Press [TUNER/AUX] to select “FM” or “AM”.

Each time you press the button:

FM → AM → AUX
↑

- 2 Press [◀◀] or [▶▶] to select the frequency of the desired station.

TUNED: Displayed when a radio station is tuned.

ST: Displayed when a stereo FM broadcast is being received.

Press and hold [◀◀] or [▶▶] until the frequency starts scrolling to start automatic tuning. Tuning stops when a station is found.

• You can also use [◀◀/V] or [^/▶▶] on the main unit.

- 3 Adjust the volume.

■ If noise is excessive in FM
Press and hold [PLAY MODE] to display “MONO”.

Press and hold [PLAY MODE] again to cancel the mode.
The mode is also canceled when you changed the frequency.

RDS broadcasting

For the United Kingdom, Continental Europe and Russia

The unit can display the text data transmitted by the radio data system (RDS) available in some areas.

If the station you are listening to is transmitting RDS signals, “RDS” will light up on the display.

Displaying the text data

→ page 28, Changing the display

Note

RDS displays may not be available if reception is poor.

AM frequency step (Main unit only)

For Southeast Asia

The step is factory-set to 9 kHz, but you can change it to receive broadcasts allocated 10-kHz steps.

- 1 Press [TUNER/AUX] to select “AM”.
- 2 Press and hold [TUNER/AUX].

After a few seconds the display changes to show the current minimum frequency. Continue to hold the button down. The minimum frequency changes and the step is changed.

To return to the original step, repeat the above steps.

Note

Any AM frequencies preset in channels will be changed by this procedure. Preset them again.

Preset tuning

Preset channels to make selection simple.

Up to 15 stations can each be set in the FM and AM bands.

Automatic presetting

- 1 Tune to “FM 87.50” (⇒ left).
- 2 Press and hold [PROGRAM].
Release the button when “AUTO” is displayed.
The tuner presets all the stations it can receive into the channels in ascending order.
When finished, the last station to be set is then played.
- 3 Tune to “AM 522” (or “AM 520”).
- 4 Press and hold [PROGRAM].

Manual presetting

- 1 Tune to the station (⇒ left).
- 2 Press [PROGRAM].
PROGRAM ch ▶ ◀
- 3 While “-” is flashing
Press the numbered buttons to select a channel.

The station occupying a channel is erased if another station is preset in that channel.

Selecting channels

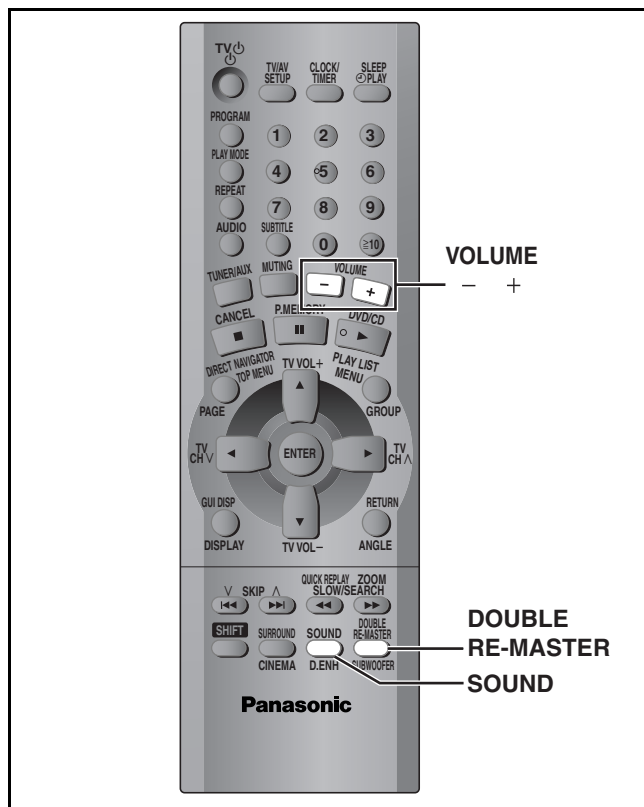
- 1 Press [TUNER/AUX] to select “FM” or “AM”.
Each time you press the button:
FM → AM → AUX
↑
- 2 Press the numbered buttons or [◀◀, V] or [▶▶, ^] to select the channel.

ch 2

To select a 2-digit number

Example: To select channel 12, press [≥10] ⇒ [1] ⇒ [2]

• You cannot select the channel with [◀◀/V] or [^/▶▶] on the main unit.



Double re-master—Enjoying more natural sound

RAM **DVD-A** **DVD-V** **CD**

Discs recorded with 2-channel LPCM at 44.1 kHz or 48 kHz

This feature gives you a more natural sound by adding the higher frequency signals not recorded on the disc.

WMA **MP3**

Discs recorded at 44.1 kHz or 48 kHz

This feature reproduces the frequencies lost during recording to give you a sound closer to the original.

During play

Press [DOUBLE RE-MASTER].



Output sampling frequency

Each time you press the button:

Setting	RAM DVD-A DVD-V CD	WMA MP3
	Type of music	Effect level
1	High tempo (e.g., pops and rock)	Light
2	Various tempos (e.g., jazz)	Medium
3	Low tempo (e.g., classical)	Strong
OFF	Off	Off

Note

The actual output sampling frequency depends on the PCM Digital Output setting (➡ page 31) when using a digital connection (➡ page 32).

Adjusting the bass and treble with manual equalizer

- 1 Press and hold [SOUND] to select “MANUAL EQ”.

MANUAL EQ

Each time you press and hold the button:

MANUAL EQ ↔ PRESET EQ

- 2 Press [SOUND] to select “BASS” or “TREBLE”.

BASS 0

Each time you press the button:

BASS → TREBLE → Original display

- 3 While displaying “BASS” or “TREBLE”
Press [VOLUME] to adjust the level (–4 to +4).

BASS +1

Using the built-in sound quality settings

- 1 Press and hold [SOUND] to select “PRESET EQ”.

PRESET EQ

Each time you press and hold the button:

MANUAL EQ ↔ PRESET EQ

- 2 Press [SOUND] to select a setting.

EQ → Heavy

Each time you press the button:

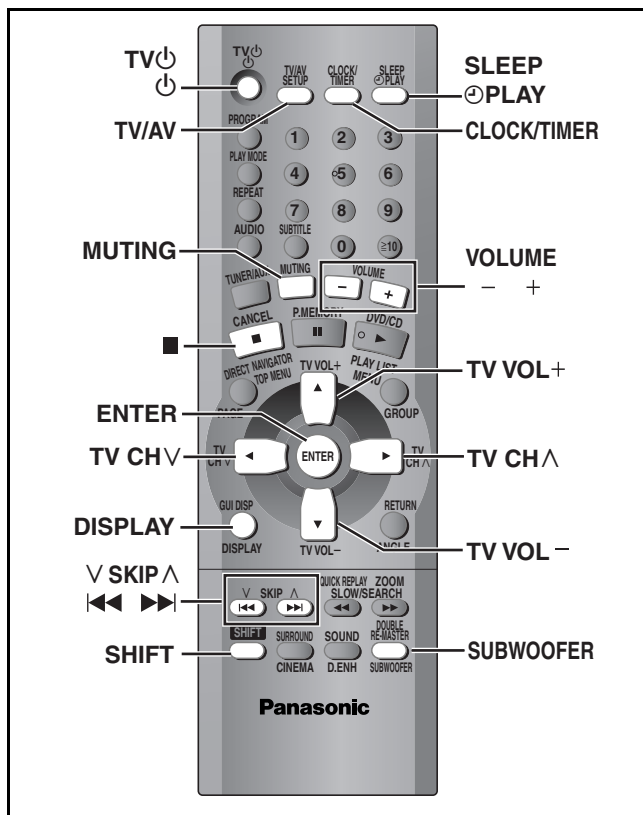
Heavy: Adds punch to rock (factory preset).

Clear: Clarifies higher sounds.

Soft: For background music.

Vocal: Makes vocals more alive.

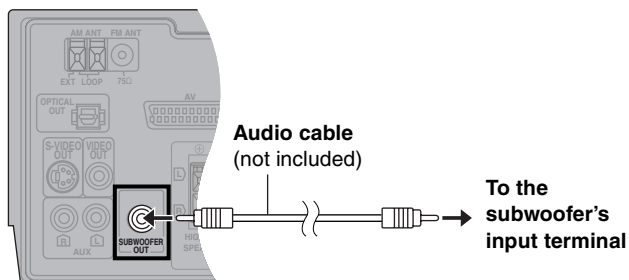
OFF: Canceled (no effect is added).



Enjoying more powerful bass

Preparation

- Connect an active subwoofer (not included). See below for connection.
- Place the subwoofer as close as possible to the front center.



Adjusting the bass

Press **[SHIFT]+[SUBWOOFER]**.

SUB W MID

Each time you press the buttons:

SUB W LOW (factory preset) → SUB W MID → SUB W MAX

Adjust the volume on the subwoofer to suit your preference.

Note

When using headphones, the subwoofer should be switched off.

Muting the volume

Press **[MUTING]**.

Volume is reduced to minimum.

[MUTING]

To cancel

Press **[MUTING]** again or reduce the volume to minimum (— dB), then raise it to the required level.

Muting is also canceled when you switch the unit to standby.

Changing the display

Press **[SHIFT]+[DISPLAY]** until the display you want appears.

Each time you press the buttons:

→ PS* (The station name appears.)

↓
PTY* (The program type appears. See below.)

↓
CLOCK (The time appears.)

↓
Dimmer On (The display dims.)

↓
Dimmer Off (Original display)

*For the United Kingdom, Continental Europe and Russia. Displayed when "RDS" lights on the display (→ page 26, RDS broadcasting).

PTY displays

NEWS	VARIED	FINANCE	COUNTRY
AFFAIRS	POP M	CHILDREN	NATIONAL
INFO	ROCK M	SOCIAL A	OLDIES
SPORT	M.O.R. M*	RELIGION	FOLK M
EDUCATE	LIGHT M	PHONE IN	DOCUMENT
DRAMA	CLASSICS	TRAVEL	TEST
CULTURE	OTHER M	LEISURE	ALARM
SCIENCE	WEATHER	JAZZ	

*"M.O.R. M"=Middle of the road music

Note

The original display is restored when you:

- Turn the unit off.
- Select another source.

Operating a television

Face the remote control at the television for the following operations.

Turning the television on/off

Press **[SHIFT]+[TV]**.

Switching the television's video input mode

Press **[SHIFT]+[TV/AV]**.

Changing channels

Press **[SHIFT]+[TV CH V]** or **[SHIFT]+[TV CH ^]**.

Adjusting the volume

Press **[SHIFT]+[TV VOL +]** or **[SHIFT]+[TV VOL -]**.

Note

Some models cannot be operated by this remote control.

The play timer

This timer starts play of the selected source at the selected time.

Preparation

Turn the unit on and set the time (➡ page 11).

- 1 Press [CLOCK/TIMER] to select "⏻PLAY".

⏻PLAY

Each time you press the button:
CLOCK → ⏻PLAY → Original display

- 2 Within 8 seconds
① Press [◀◀, ∨] or [▶▶, ^] to select the start time.

⌚6:30 ⌚→ 0:00

- ② Press [CLOCK/TIMER] or [ENTER].

- 3 ① Press [◀◀, ∨] or [▶▶, ^] to select the finish time.

6:30 → ⌚7:40

- ② Press [CLOCK/TIMER] or [ENTER].

- 4 ① Play the desired source.

To play an external source

➡ page 32

To set only your favorite tracks/chapters

Start program play (➡ page 16).

- ② Adjust the volume.

When playing a disc, press [■] to stop play before step 5.

- 5 Press [⏻PLAY].

TIMER-PLAY ⏻PLAY

- 6 Press [⏻] to turn the unit off.

The timer starts at the set time with the volume increasing gradually to the set level.

To cancel

Press [⏻PLAY] to clear "⏻PLAY". The timer comes on at the set time everyday if the timer is on.

To check settings

(While the unit is off)

Press [CLOCK/TIMER].

The settings are displayed in the following order:

Start time → Finish time → Source → Volume

(While the unit is on)

Press [CLOCK/TIMER] until "⏻PLAY" appears on the display.

The start and finish times are displayed.

To change the settings

- ① Turn the unit on and press [⏻PLAY] to clear "⏻PLAY".
- ② Do steps 1–6 again.

To enjoy the desired source after the timer setting is completed

① Turn the unit on and play the desired source.

② After playing, turn the unit off.

Even if you change the volume and source, the timer will start in these preset conditions.

If you select "AUX" as the source

Set the connected equipment's timer to the same time. (See the instruction manual that came with the equipment.)

The sleep timer

This timer turns the unit off after a set time.

Press [SHIFT]+[SLEEP] to select the time (minutes).

SLEEP 30 SLEEP

Each time you press the button:

SLEEP 30 → SLEEP 60 → SLEEP 90

↑ SLEEP OFF ← SLEEP 120 ←

To cancel the timer

Press [SHIFT]+[SLEEP] to select "SLEEP OFF".

To check the SLEEP setting

Press [SHIFT]+[SLEEP] once.

The remaining time appears.

To change the setting

Press [SHIFT]+[SLEEP] to display the remaining time, then press again to select the required time.

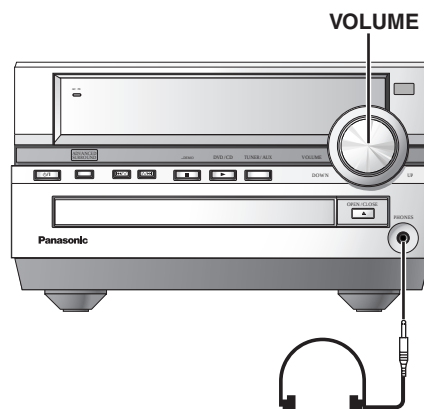
Note

The sleep timer can be used in combination with the play timer. The sleep timer always has priority. Be sure not to overlap timer settings.

Using headphones

- 1 Reduce the volume and connect the headphones (not included).

Headphone plug type: 3.5 mm stereo



- 2 Adjust headphone volume with [VOLUME].

Audio is automatically switched to stereo (2-channel).

Note

Avoid listening for prolonged periods of time to prevent hearing damage.

Changing settings

This chart shows the settings for this unit. Change the settings to suit your preferences and to suit the unit to the environment in which it is being used. These settings are retained in memory until they are changed, even if the unit is turned off. See page 31 for details on menu operation.

Menus	Items	Options (Underlined items are the factory preset.)
Disc 	Audio Choose the preferred audio language.	* ¹ <u>English</u> French German Italian Spanish Portuguese Swedish Dutch Original Other **** * ² <u>English</u> Chinese Original Other **** Original: The original language of each disc will be selected. Other ****: Input a code number with the numbered buttons (⇒ page 33).
	Subtitle Choose the preferred subtitle language.	* ¹ <u>Automatic</u> English French German Italian Spanish Portuguese Swedish Dutch Other **** * ² <u>Automatic</u> English Chinese Other **** Automatic: If the language selected for "Audio" is not available, subtitles of that language will automatically appear if available on that disc.
	Menus Choose the preferred language for disc menus.	* ¹ <u>English</u> French German Italian Spanish Portuguese Swedish Dutch Other **** * ² <u>English</u> Chinese Other ****
	Ratings (⇒ page 31) Set a ratings level to limit DVD-Video play. • The password screen is shown if you choose levels 0 to 7 or if you choose "Ratings" when levels 0 to 7 have been selected. • Select "Level 0" to prevent play of discs that do not have ratings levels recorded on them.	Setting ratings (When level 8 is selected) 8 <u>No Limit</u> : All DVD-Video can be played. 1 to 7: Prohibits play of DVD-Video with corresponding ratings recorded on them. 0 <u>Lock All</u> : Prohibits play of all DVD-Video. Changing ratings (When level 0–7 is selected) Unlock Player Change Password Change Level Temporary Unlock
Video 	TV Aspect (⇒ page 10) Choose the setting to suit your television and preference.	<u>4:3 Pan&Scan</u> 4:3 Letterbox 16:9
	Progressive Out (Component) * ³ Choose "Enable" to enable progressive output.	<u>Disable</u> Enable
	TV Type (⇒ page 10) Select to suit the type of television.	<u>Standard (Direct View TV)</u> CRT Projector LCD TV/Projector Projection TV Plasma TV
	AV Output (⇒ page 8)* ⁴ Choose the video signal format to be output from the SCART terminal.	<u>Video</u> RGB
	Still Mode Specify the type of picture shown when paused.	<u>Automatic</u> Field Frame
	NTSC Disc Output Choose whether PAL 60 or NTSC signals are output during playback of NTSC discs (⇒ page 5).	PAL60: when connected to a PAL television. NTSC: when connected to an NTSC television. (For Southeast Asia: "NTSC" is the factory preset.)
Audio 	PCM Digital Output (⇒ page 31)	Off <u>Up to 48 kHz</u> Up to 96 kHz Up to 192 kHz
	Dolby Digital (⇒ page 31)	<u>Bitstream</u> PCM
	DTS Digital Surround (⇒ page 31)	<u>PCM</u> Bitstream
	MPEG (⇒ page 31)* ¹	<u>PCM</u> Bitstream
	Dynamic Range Compression (Dolby Digital only) Change the dynamic range for late night viewing.	<u>Off</u> On: For clear dialogue when listening at low volume.
	Audio during Search Choose whether to have sound during search.	<u>On</u> Off • This feature doesn't work for some discs.
Display 	Menu Language Choose the preferred language for these menus and the on-screen messages.	* ¹ <u>English</u> Français Deutsch Italiano Español Português Svenska Nederlands * ² <u>English</u> 中文
	On-Screen Messages Choose whether to show on-screen messages or not.	<u>On</u> Off
Others 	HighMAT Play HighMAT discs as HighMAT discs, or as regular WMA/MP3/JPEG discs. (Reload the disc for the setting to be effective.)	<u>Enable</u> : Play HighMAT discs as HighMAT discs. Disable: Play HighMAT discs as regular WMA/MP3/JPEG discs.
	Mixed Disc—Audio & Stills Select the type of file played on discs containing both JPEG and WMA/MP3. (Reload the disc for the setting to be effective.)	<u>Audio (MP3/WMA)</u> Stills (JPEG)
	DVD-Video Mode Select how to play pictures contained on some DVD-Audio. The setting returns to "Off" when you remove the disc, turn the unit off or change the source.	<u>Off</u> : DVD-Audio are played as DVD-Audio. On: DVD-Video contents found on DVD-Audio can be played.
	QUICK SETUP (⇒ page 10) Answer questions to make basic settings.	Yes <u>No</u>

*¹For the United Kingdom, Continental Europe, Russia, Australia and N.Z.

*²For Southeast Asia

*³For Australia, N.Z. and Southeast Asia

*⁴For the United Kingdom, Continental Europe and Russia

Entering a password (Ratings)

DVD-V

The password screen is shown when you select levels 0 to 7.

- Input a 4-digit password with the numbered buttons and press [ENTER].
 - If you enter a wrong number, press [SHIFT]+[CANCEL] to erase it before you press [ENTER].
 - The lock symbol appears closed to show the rating is locked.
 - Do not forget your password.**
- Press [ENTER] to confirm the 4 digits.

Now, when you insert a DVD-Video that exceeds the ratings limit you set, a message appears on the television. Follow the on-screen instructions.

Digital output

RAM DVD-A DVD-V VCD CD WMA MP3

Change the settings when you have connected equipment through this unit's OPTICAL OUT terminal.

PCM Digital Output

Select the maximum sampling frequency of PCM digital output. Check the digital input limitations of the equipment you connect.

- Off:** When not connected digitally
- Up to 48 kHz** (factory preset): Signals over 48 kHz converted to 48 or 44.1 kHz
- Up to 96 kHz:** Signals over 96 kHz converted to 48 or 44.1 kHz
- Up to 192 kHz:** Signals up to 192 kHz are output

Note

- Signals from copy-protected discs are converted to 48 or 44.1 kHz irrespective of the setting.
- 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.

Dolby Digital, DTS Digital Surround and MPEG*

Bitstream (Factory preset for Dolby Digital):

Select if the equipment you connected can decode the signal.

PCM (Factory preset for DTS Digital Surround and MPEG*):

Select if the equipment you connected cannot decode the signal.

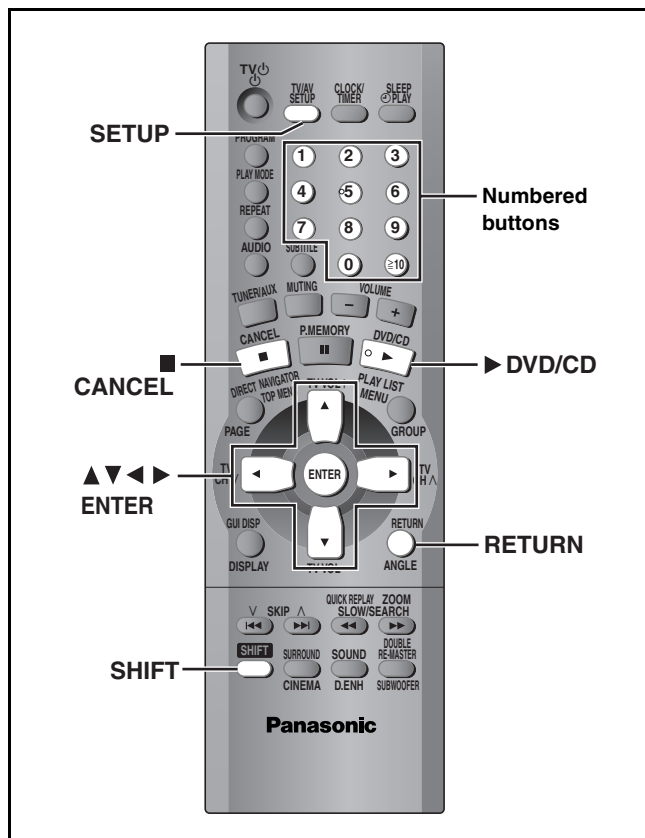
* MPEG: Only for the United Kingdom, Continental Europe, Russia, Australia and N.Z.

IMPORTANT

If the equipment you connected cannot decode the signal, the setting must be changed to PCM. If not, signals the equipment cannot process will be output by this unit, causing high levels of noise which can damage your hearing and the speakers.

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

Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942, 5,956,674, 5,974,380, 5,978,762 and other world-wide patents issued and pending. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc. Copyright 1996, 2000 Digital Theater Systems, Inc. All rights reserved.



Common procedures

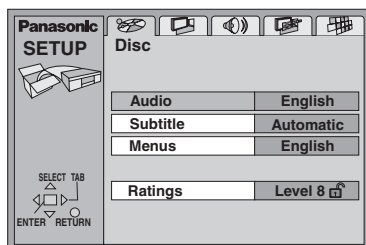
See page 30 for menu and option details.

Preparation

Press [▶ DVD/CD].

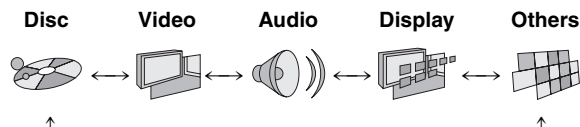
(When a disc is in the tray, press [▶ DVD/CD] and press [■].)

1 Press [SETUP] to show the menus.



2 Press [◀, ▶] to select the menu's tab.

The screen changes to display the menu.



3 Press [▲, ▼] to select the item you want to change and press [ENTER].

4 Press [▲, ▼, ▶, ◀] to select the option and press [ENTER].

The screen now shows the menu again.

To return to the previous screen

Press [RETURN].

When you are finished

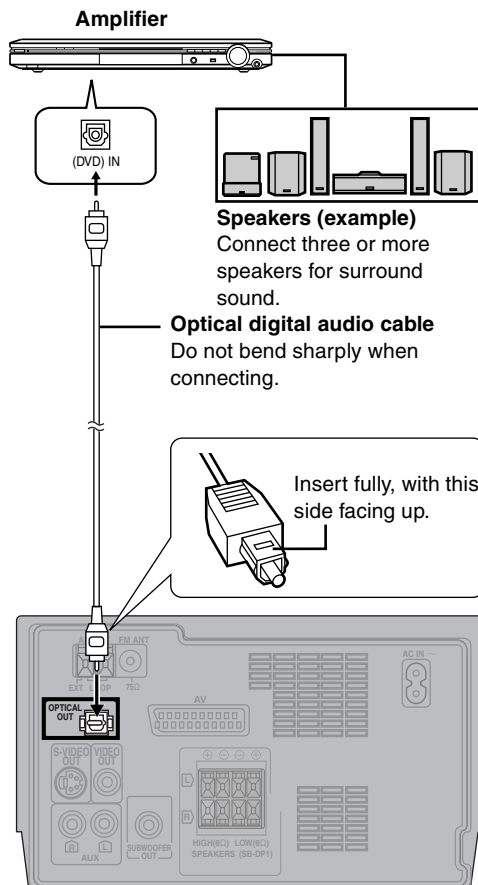
Press [SETUP].

Before connection

- Disconnect the AC mains lead.
- Turn off all equipment and read the appropriate operating instructions.
- The equipment connections described are examples.
- Peripheral equipment and optional cables sold separately unless otherwise indicated.

Home Theater—Enjoying more powerful sound

Enjoy the powerful movie theater and hall-like sound available with multiple channel audio found on DVD-Video by connecting an amplifier and speakers. (**DVD-A**) Even if using this connection, output will be only 2 channels.)



To enjoy multi-channel surround sound

Connect an amplifier with a built-in decoder or a decoder-amplifier combination.

Change the settings in “Digital output” (⇒ page 31).

- You can only use DTS Digital Surround decoders that are compatible with DVD.

Recording Output

- With DVD, the following conditions must be met: (a) the disc doesn't have protection preventing digital recording, and (b) the recording equipment can handle signals with a sampling frequency of 48 kHz.
- You cannot record WMA/MP3.

When recording DVDs, make the following settings.

–Advanced surround: OFF (⇒ page 19)

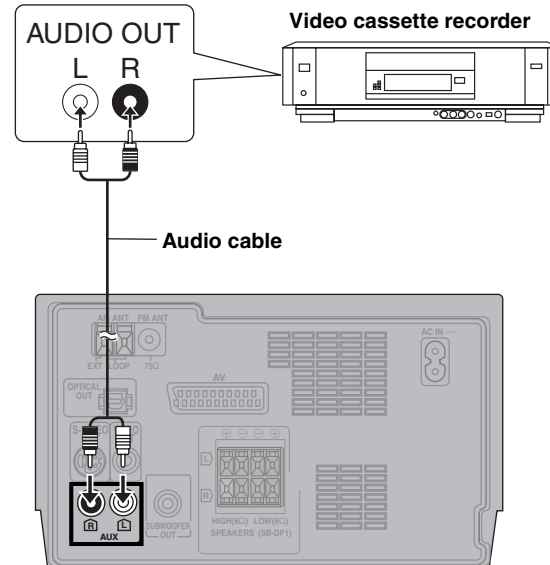
–PCM Digital Output: Up to 48 kHz (⇒ page 31)

–Dolby Digital/DTS Digital Surround/MPEG*: PCM (⇒ page 31)

* MPEG: Only for the United Kingdom, Continental Europe, Russia, Australia and N.Z.

Listening to an external source through this unit's speaker

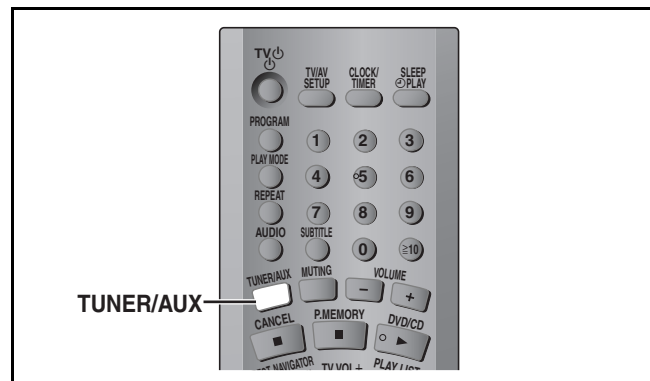
You can playback the sound from a video cassette recorder, tape deck, laser disc player, etc., through this unit's speaker.



When connecting a record player

We recommend using a record player with a built-in phono equalizer. If your player doesn't have a built-in equalizer, connect it first to a separate equalizer and then connect that to this unit.

To playback



1 Press [TUNER/AUX] to select “AUX”.

Each time you press the button:

FM → AM → **AUX**

2 Start play.

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.

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

Optional antenna connections

Use outdoor antennas if radio reception is poor.

Note

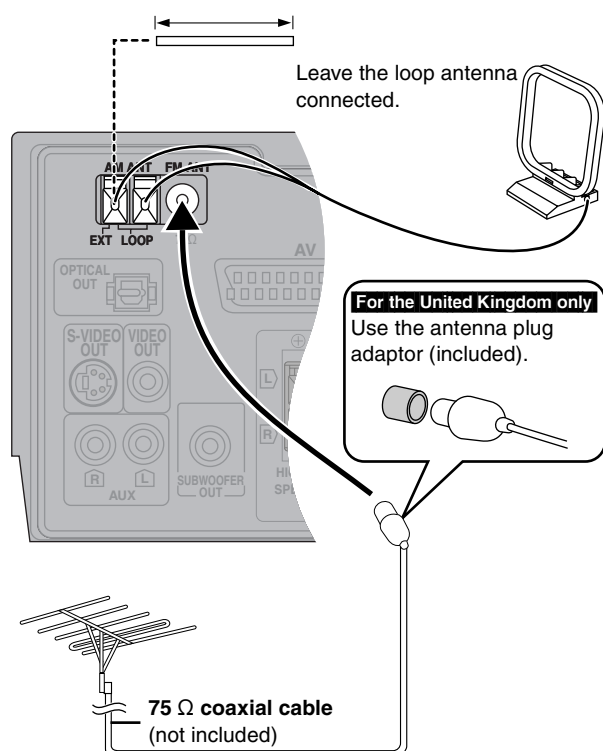
Disconnect the antenna when the unit is not in use.

Do not use the outdoor antenna during an electrical storm.

AM outdoor antenna (Using a vinyl wire)

Run a piece of vinyl wire horizontally across a window or other convenient location.

5–12 m



FM outdoor antenna (Using a television antenna)

- Disconnect the FM indoor antenna.
- The antenna should be installed by a competent technician.

Safety precautions

Placement

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.

Do not place heavy items on the unit.

Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.

Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.

Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.

Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.

Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

Troubleshooting guide

Before requesting service, make the below 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, consult your dealer for instructions.

Power

Page

No power.	● Insert the AC mains lead securely.	9
The unit is automatically switched to the standby mode.	● The unit was switched to standby by the sleep timer.	29

Operation

No response when buttons pressed.	- Some operations may be prohibited by the disc. - The unit may not be operating properly due to lightning, static electricity or some other external factor. Reset procedure: Press [⏻] to switch the unit to the standby mode and then back to ON. Alternatively, press [⏻] to switch the unit to the standby mode, disconnect the AC mains lead, and then reconnect it.	— —
No operations can be performed with the remote control.	- Check that the batteries are installed correctly. - The batteries are depleted: Replace them with new ones. - Point the remote control at the remote control sensor and operate.	9 9 —
Play doesn't start (or stops immediately) when you press [▶ DVD/CD].	- Condensation has formed: Wait 1 to 2 hours for it to evaporate. - This unit cannot play discs other than the ones listed in these operating instructions. - 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 rear panel. - The disc may be dirty and may require cleaning. - Ensure that the disc is loaded with the label of the side to be played facing upwards. - Check that the DVD-RAM has something recorded on it.	— 5 Cover 5 13 —
Cannot select alternative languages.	- This function is dependent on software availability. - Try selecting from the disc's menu if one is available.	— 14
No menu play.	This function is dependent on software availability.	—
No subtitles.	- This function is dependent on software availability. - Subtitles are cleared from the television. Turn on the subtitles.	— 17
The position of the subtitles is incorrect.	Change the position of the subtitles with "Subtitle Position" in the GUI screen.	25
Soundtrack and/or subtitle language is not the one selected with the SETUP menus.	This function is dependent on software availability.	—
Cannot change angle.	This function is dependent on software availability. Even if a disc has a number of angles recorded, these angles may be recorded for specific scenes only.	—
The SETUP menu cannot be accessed.	- Select "DVD/CD" as the source. - Cancel all group, program and random play.	— 16
Cannot add markers.	You cannot add markers while playing a play list or if the disc's play time doesn't appear on the unit's display.	—
There are already markers. RAM	The unit reads and displays the markers added with a DVD video recorder. You can clear them but reappear when you switch the unit to standby, change the source, or open the disc tray.	—
Marker numbers I added are different when I call them up. RAM	The unit numbers markers by time so they change when you add and delete them.	—
Cannot select random or program play.	You cannot select random or program play with some DVD-Video.	—
Folders deeper than the eighth layer on a data CD are not displayed correctly.	Folders deeper than the eighth layer are displayed as the eighth layer.	—
You have forgotten your ratings password. Reset all the SETUP settings to Factory Preset.	- While stopped and "DVD/CD" is the source, press and hold [■] on the unit and [≥10] on the remote control for about 3 seconds until "Initialized" disappears from the television. Turn the unit off and on again. - All settings will return to the default values.	—
The unit doesn't play the data type (WMA/MP3 or JPEG) selected in the "Mixed Disc—Audio & Stills" in the SETUP menu.	Reload the disc for the setting to be effective. Press [▲ OPEN/CLOSE] to open the tray, then press [▶ DVD/CD] to start play.	—
Cannot eject disc.	- The unit may not operate properly if the disc is damaged or dirty. - Press [⏻] and after the display disappears, wait a few seconds, then press [⏻] again and eject the disc.	—

Listening to the radio

Noise is heard. "ST" flickers or doesn't light. Sound is distorted.	- Adjust the position of the FM or AM antenna. - Use an outdoor antenna.	— 33
A beat sound is heard.	Turn the television off or separate it from the unit.	—
A low hum is heard during AM broadcasts.	Separate the antenna from other cables and cords.	—
For Australia, N.Z. and Southeast Asia The correct AM frequency can't be tuned in.	Change the frequency step. Press [TUNER/AUX] to select "AM", then press and hold [TUNER/AUX] on the unit for 10 seconds to change the step to suit your area.	26

Sound

No sound. Distorted sound.	• Check the connections. • Turn the volume up. • Turn muting off. • Turn Advanced surround off if it causes distortion. • Switch off the unit, determine and correct the cause, then switch the unit on. Causes include: – Shorting (bare wires touching) of positive and negative speaker wires. – Using speakers with an impedance lower than that rated for this unit. – Straining of the speakers through excessive volume or power. – Using the unit in a hot environment without proper ventilation.	7 — 28 19 —
Piercing noise comes from the speakers.	• If you have connected this unit to other equipment through the OPTICAL OUT terminal, ensure you have selected the correct settings for “Dolby Digital”, “DTS Digital Surround” and “MPEG” in the SETUP menus’ Audio menu. * Only for the United Kingdom, Continental Europe, Russia, Australia and N.Z.	31
Effects do not work.	• Dialogue enhancer and Advanced surround do not work when the unit is outputting bitstream signals. • Advanced surround does not work if you have changed the play speed.	— 23

Picture

Picture distorted.	• Some distortion is normal during SEARCH.	—
No picture.	• Check the connection. • Make sure the television is on. • Ensure the television’s video input setting (e.g., VIDEO 1) is correct.	8 — —
The picture shown on the television is not normal. (The sides of the picture are cut off, the picture is stretched horizontally, or black bands appear at the top and bottom of the screen.)	• Go to Video in the SETUP menus, and change “TV Aspect” to suit your television. • Use the television to change the aspect to the correct one. For Australia, N.Z. and Southeast Asia If your television cannot change the aspect when input is progressive, try changing 4:3 Aspect with the GUI screen. • Ensure that the unit is connected directly to the television, and is not connected through a video cassette recorder. • Change the size with the variable zoom function. For Australia, N.Z. and Southeast Asia • Connect to the component video (480P) input terminals on a television compatible with this unit’s copy guard system. You cannot view progressive video if your television is not compatible.	30 — 25 — 18 8
For Australia, N.Z. and Southeast Asia There is ghosting when progressive output is on.	• Change “Video output mode” to “480i” so “PROGRESSIVE” on the display goes out. This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlace output.	25
Picture quality is poor.	• Check the settings in the GUI screen’s Picture Menu.	25
The picture on the television disappears or stripes appear on the screen.	• The location and orientation of the antenna are incorrect. If you are using an indoor antenna, change to an outdoor antenna. • The television antenna wire is too close to the unit. Separate the antenna wire of the television from the unit.	33 —
Menus not displayed correctly.	• Change the zoom ratio to “×1.00”. • With the GUI screen, change “Subtitle Position” to “0”. For Australia, N.Z. and Southeast Asia • With the GUI screen, change “4:3 Aspect” to “Normal”.	18 25 25

Unit displays

The display is dark.	• Press and hold [SHIFT] + [DISPLAY] until the display returns to the original brightness.	28
“DVD NO PLAY”	• You inserted a disc the unit cannot play; insert one it can. • You inserted a blank DVD-RAM.	5 —
“DVD NO DISC”	• You haven’t inserted a disc; insert one. • You haven’t inserted the disc correctly; insert it correctly.	— 13
“F61”	• Check and correct the speaker cord connections. If this does not fix the problem, there is a power supply problem. Consult the dealer.	7
“DVD U11”	• Disc is dirty. Wipe it clean.	5
“ERROR”	• Incorrect operation performed. Read the instructions and try again.	—
“DVD H□□” □□ stands for a number.	• Trouble may have occurred. The number following “H” depends on the status of the unit. Reset procedure: Press [⏻] to switch the unit to the standby mode and then back to ON. Alternatively, press [⏻] to switch the unit to the standby mode, disconnect the AC mains lead, and then reconnect it. • If the service numbers fail to clear, note the service number and contact a qualified service person.	— —

Television displays

“Cannot display group xx, picture xx”	• You are trying to display incompatible pictures.	—
For Australia, N.Z. and Southeast Asia “The progressive out is set to “Disable””	• Go to Video in the SETUP menus, and select “Enable” in “Progressive Out (Component)”.	30
No on-screen display.	• Go to Display in the SETUP menus, and select “On” for “On-Screen Messages”.	30
GUI screens not displayed or only partially displayed on the television.	• Press [▲, ▼] while the rightmost icon is highlighted to move them down.	23
The disc’s menu is displayed in a different language.	• Go to Disc in the SETUP menus, and select the preferred language for “Menus”.	30

Specifications

AMPLIFIER SECTION

RMS Output Power both channel driven

10 % total harmonic distortion

1 kHz	(Low-channel) 25 W per channel (6 Ω)
8 kHz	(High-channel) 25 W per channel (6 Ω)

Total Bi-Amp power 50 W per channel

Total RMS Stereo mode power 100 W

Total RMS Dolby Digital mode power 100 W

For Southeast Asia only PMPO Output Power 1000 W

DIN Output Power both channel driven 40 W per channel

1 % total harmonic distortion

1 kHz	(Low-channel) 20 W per channel (6 Ω)
8 kHz	(High-channel) 20 W per channel (6 Ω)

Total DIN Power in Stereo mode 80 W

Total DIN Power in Dolby Digital mode 80 W

Input sensitivity/Input impedance

AUX 250 mV, 19 kΩ

FM TUNER SECTION

Frequency range 87.50–108.00 MHz (50-kHz step)

Sensitivity 2.5 μV (IHF)

S/N 26 dB 2.2 μV

Antenna terminals 75 Ω (unbalanced)

Preset station 15

AM TUNER SECTION

Frequency range

For the United Kingdom, Continental Europe and Russia
522–1629 kHz (9-kHz steps)

For Australia, N.Z. and Southeast Asia
522–1629 kHz (9-kHz steps)/520–1630 kHz (10-kHz steps)

Sensitivity

S/N 20 dB at 999 kHz 560 μV/m

Preset station 15

DISC SECTION

Discs played [8 cm or 12 cm]:

- (1) DVD-RAM (DVD-VR compatible)
- (2) DVD-Audio
- (3) DVD-Video
- (4) DVD-R (DVD-Video compatible)
- (5) CD-Audio (CD-DA)
- (6) Video CD
- (7) SVCD (Conforming to IEC62107)
- (8) CD-R/CD-RW (CD-DA, Video-CD formatted discs)
- (9) MP3/WMA
 - Maximum number of tracks and groups recognizable: 999 tracks and 99 groups
 - Compatible compression rate:
 - MP3: between 32 kbps and 320 kbps
 - WMA: between 48 kbps and 192 kbps
- (10) JPEG
 - Exif Ver 2.1 JPEG Baseline files
 - Maximum number of pictures and groups recognizable: 3000 pictures and 300 groups
 - Picture resolution: between 320×240 and 6144×4096 pixels (sub sampling is 4:2:2 or 4:2:0)
- (11) HighMAT Level 2 (Audio and Image)

Video

Signal system

For Southeast Asia PAL/NTSC

For others PAL/PAL60/NTSC

Output level

Composite video 1 Vp-p (75 Ω)

S-video

Y output level 1 Vp-p (75 Ω)

C output level 0.3 Vp-p (75 Ω) (PAL)

0.286 Vp-p (75 Ω) (NTSC)

For the United Kingdom, Continental Europe and Russia

RGB

G output level 1 Vp-p (75 Ω)

B output level 0.7 Vp-p (75 Ω)

R output level 0.7 Vp-p (75 Ω)

For Australia, N.Z. and Southeast Asia

Component video (Y:green, Pb:blue, Pr:red)

Y output level 1 Vp-p (75 Ω)

Pb output level 0.7 Vp-p (75 Ω)

Pr output level 0.7 Vp-p (75 Ω)

Audio

Sampling frequency

CD 44.1 kHz

MP3 32 kHz, 44.1 kHz, 48 kHz

DVD (Linear Audio) 48 kHz, 96 kHz

DVD-Audio 192 kHz

Decoding

16/20/24 bit linear

Number of channels Stereo

Frequency response

20 Hz–20 kHz (+1, –2 dB)

Digital audio output

Optical digital output Optical terminal

Pick up

Beam Source Semiconductor Laser

Wavelength

CD/VCD 780 nm

DVD 658 nm

NORSK

Bølgelengde 780 nm

CD/VCD 658 nm

DVD Ingen farlig stråling sendes ut

Wow and flutter

D/A converter Less than possible measurement data

Delta sigma DAC

SPEAKER SECTION

Type 2 way, 2 speaker system

Speaker units

Tweeter 6 cm cone type 6 Ω

Woofer 10 cm cone type 6 Ω

Input power High 50 W (Music)

Low 50 W (Music)

Output sound pressure level 81 dB/W (1.0 m)

Crossover frequency 2.2 kHz

Frequency range 47 Hz–32 kHz (–16 dB)

64 Hz–31 kHz (–10 dB)

Dimensions (W×H×D) 158×276×280 mm

Mass 2.4 kg

GENERAL

Power supply

For the United Kingdom, Australia and N.Z. AC 230–240 V, 50 Hz

For Continental Europe and Russia AC 230 V, 50 Hz

For Southeast Asia except Thailand AC 230–240 V, 50/60 Hz

For Thailand AC 220 V, 50 Hz

Power consumption 105 W

Dimensions (W×H×D) 205×123.5×383.5 mm

Mass 4.2 kg

Power consumption in standby mode

1 W

Note

- 1 Specifications are subject to change without notice. Mass and dimensions are approximate.
- 2 Total harmonic distortion is measured by the digital spectrum analyzer.

Maintenance

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzene to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

Before moving the unit, ensure the disc tray is empty.

Failure to do so will risk severely damaging the disc and the unit.

Matsushita Electric Industrial Co., Ltd.

Web Site: <http://www.panasonic.co.jp/global/>

En

RQT6817-3B

F0203YW3123