DVD Home Theater Sound System
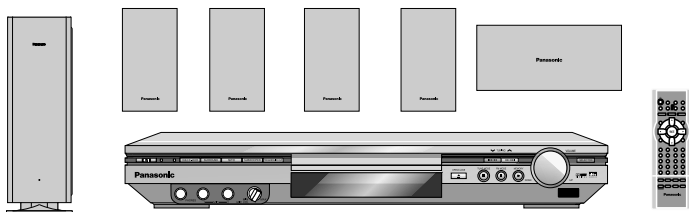
Operating Instructions

Model No. **SC‑ HT600**
SC‑ HT860

(The illustration shows the SC-HT600)

COMPACT
disc
DIGITAL VIDEO

DVD
AUDIO / VIDEO

Panasonic®

Region number supported by this player

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

For Asia

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

  3   ALL   2 3 5

For Russia

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

  5   ALL   1 3 5

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting,operating or adjusting this product.

RQTC0019-1

| GCS | GCU | EE |

- The operation instruction is applicable to SC-HT600 and SC-HT860.
- Unless otherwise indicated,illustrations in these operating instuctions are of SC-HT600 for Asia.
- The operation in these instructions are described for use with the remote control. They will also apply if the main unit has buttons with the same functions.

HT600 : Indicating the performances only for SC-HT600

HT860 : Indicating the performances only for SC-HT860

system	SC-HT600	SC-HT860
Main unit	SA-HT600	SA-HT860
Front speaker	SB-FS600	SB-FS860
Center speaker	SB-PC600	SB-PC600
Surround speaker	SB-FS600	SB-FS600
Active Subwoofer	SB-WA600	SB-WA600

Accessories

Please check and identify the supplied accessories.
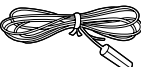
- [ ] 1 Remote control (EUR7617070)
- [ ] 1 AC power supply cord (RJA0019-2X)
- [ ] 2 Batteries
- [ ] 1 Sheet of speaker pads (5x5pic) (RKAC0003)
- [ ] 1 Video cable (K2JA2A000018)
- [ ] 1 sheet of stickers for speaker cables (12 stickers)cannot retail. (RQLCA0094)
- [ ] 1 AM loop aerial (N1DAAAA00002)
- [ ] One 25PIN connection wire (K1HA25JA0002)
- [ ] 1 FM indoor aerial (N1EAYY000002)
- [ ] 6 pcs of screw HT860 (RHDC0007) (enclosed in packing box for front speaker)
- [ ] 5 Speaker cables 5m cable (RWJC0006) 10m cable (RWJC0005)
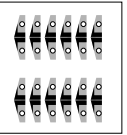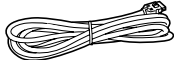
HT600

5m cable x 3
10m cable x 2

HT860

5m cable   x 1
10m cable x 2
5m cable   x 2 (enclosed in packing box for front speaker)

Note

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

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

This produce 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.

Caution!
AC voltage varies in different regions.The voltage must be preset to local voltage before using this unit.
(for details, see page 9)

Units for Russia
THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.
Units for Asia
THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

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

(Inside of product)

CLASS 1
LASER PRODUCT
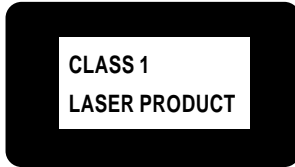
CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
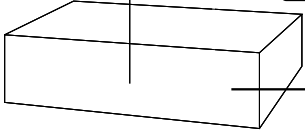
(Back of product)

IMPORTANT SAFETY INSTRUCTIONS

Placement

The unit should be placed on a flat surface,away from direct sunshine, high temperature, humidity and frequent vibration. Otherwise, the case and other internal parts will be damaged and the service life of the unit will be shortened.
In order to avoid distortion or abnormal sound effects, there should be at least a distance of 15cm between the unit and the wall.Do not place heavy objects on the top of the unit.

Voltage

Overvoltage must be avoided; overvoltage will lead to overload of the unit and fire.
Do not use a DC power supply. Check if the power supply meets the requirement when the unit is set up in ships or other locations where DC power supply is used.

Protection of power supply cord

The AC power supply cord should be properly connected, ensuring that there is no damage in the cord. Poor connection or damage in cord may lead to fire or electrical shock. It is prohibited to pull or bend the cord or place heavy objects upon the cord.
When unplugging the AC power supply cord, just grasp the plug firmly. electric shock may occur if you unplug the cord by pulling the cord.
Do not plug in or unplug the plug with wet hand, for fear of electric shock.

Foreign matter

Do not drop metal objects into the unit for fear of leakage current orfault.
Do not drop liquid into the unit for fear of leakage current or fault. In case any liquid drops into the unit, immediately unplug the AC cord, and contact your dealer.
Do not spray insecticide onto or into the unit. The insecticide sprayons contains inflammable gas; if it enters the inside of the unit, fire may be caused.

Service

Do not try to repair the unit by yourself. If there is a fault e.g. interrupted sound, indicator blankoff, smoke emission or other faults unlisted in the operating instructions, unplug the AC power supply cord, and contact your dealer or the authorized service center.
Electric shock or damage to the unit may occur if the unit is repaired, dismantled,or reassembled by unqualified personnel.
Before cleaning the unit, please unplug the AC power supply cord.

When the unit is not to be used for a long period, please unplug the AC power supply cord so as to prolong the service life of the unit.

Table of contents

Disc information

■ Discs that can be played

DVD-RAM	DVD-Audio	DVD-Video	DVD-R	SVCD	VCD	CD	CD-R/RW
DVD RAM RAM4.7 Shown as" DVD-VR " on the display	**DVD AUDIO**	**DVD VIDEO** **DVD VIDEO**	**DVD R R4.7**	**COMPACT disc SUPER VIDEO** Conforming to IEC62107	**COMPACT disc DIGITAL VIDEO**	**COMPACT disc DIGITAL AUDIO TEXT** **COMPACT disc DIGITAL AUDIO**	—
RAM	DVD-A	DVD-V		VCD		CD	WMA MP3 JPEG

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.
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.

■ Discs that cannot be played

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

■ Built-in decoders

This unit can play discs with these signs.

DOLBY DIGITAL   **DIGITAL dts SURROUND**

■ Video systems

● This unit can play PAL and NTSC, but your television must match the system used on the disc.
● PAL discs cannot be correctly viewed on an NTSC television.
● This unit can convert NTSC signals to PAL 60 for viewing on a PAL television(➡ page 26, Video-NTSC Disc Output).
● Output is interlace(576I),when playing PAL discs.

■ 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.

■ DVD-RAM discs

The DVD-RAM you can play on this unit are those recorded with DVD video recorders,DVD video cameras, personal computers, etc.using Version1.1 of the Video Recording Format (a unified video recording standard).
● Remove discs from their cartridges before use and 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.

■ DVD-R discs

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

■ 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. Finalize※ the disc after recording.

See page 17 for more information about WMA, MP3, and JPEG.

※ A process that allows play on compatible equipment.

■ Disc structure

Disc structure and the labels given to the items on discs depend on the disc type.
Title: the largest division on DVD-Video, usually an entire movie.
Chapter: the smallest division on DVD-Video.
Group: collections of tracks on DVD-Audio and equivalent to folders or albums on data discs.
Track: the smallest division on DVD-Audio, CDs and Video CDs, or a single WMA/MP3 file.
Program: the division on DVD-RAM equivalent to a single recording.
Scene: DVD-RAM program sections specified and grouped into play lists on a DVD video recorder.
Play list: the largest grouping unit in the High MAT disk, or a bevy of DVD-RAM shots.
Content: including the musical pieces and images in HighMAT disk.
Picture: a single JPEG file.

■ To clean discs

DVD-Audio,DVD-Video,VCD, CD:Wipe with a damp cloth and then wipe dry.
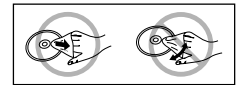
DVD-RAM、DVD-R:
● Clean with an optional DVD-RAM/PD disc cleaner (LF-K200DCA1,where available).
● Never use cloths or cleaners for CDs etc.

■ Handling precautions

● Do not write on the label side with a ball-point pen or other writing instrument.
● Do not use record cleaning sprays, benzine, 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 disc with label printed by the form printers available on the market.

Handy setting

Step *1* Layout

HT600

① Front speaker (left) ② Front speaker (right) ③ Surround speaker (left) ④ Surround speaker (right) ⑤ Center speaker ⑥ Active Subwoofer

SB-FS600				SB-PC600	SB-WA600

HT860

① Front speaker (left) ② Front speaker (right) ③ Surround speaker (left) ④ Surround speaker (right) ⑤ Center speaker ⑥ Active Subwoofer

SB-FS860		SB-FS600	SB-PC600	SB-WA600

Example

Main unit

Example

Main unit
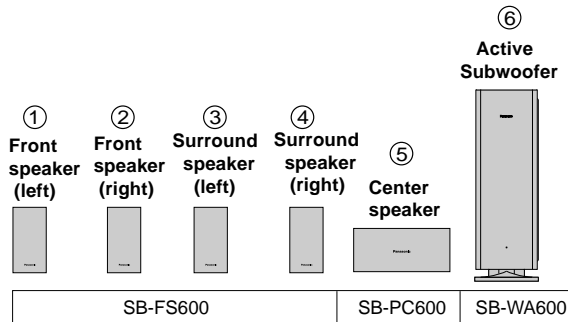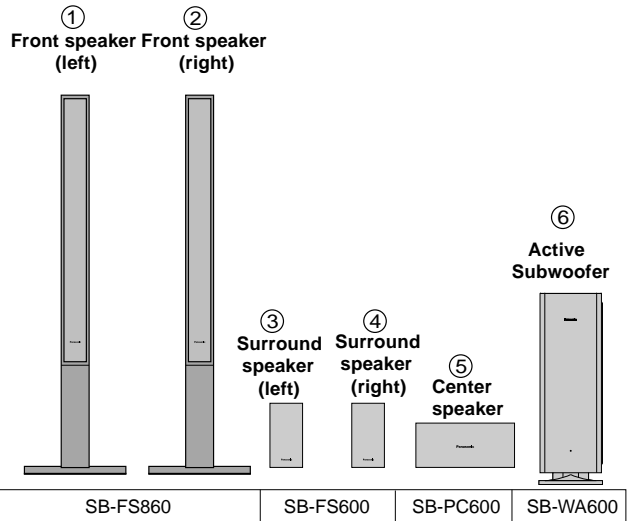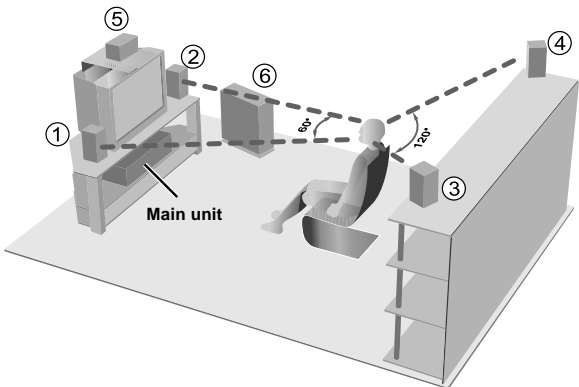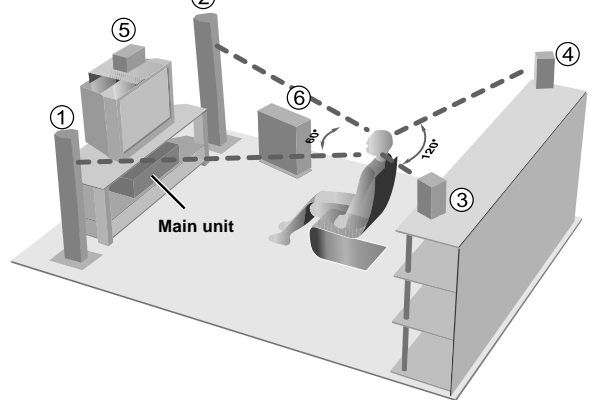
● The front speakers are the same as the surround speakers.

● Locate the front, center and surround speakers at spots with approximately equal distance from the listening area. The angles in the figure are only rough.

● **Only the attached speakers can be adopted.**
  If other speakers are used, the unit may be damaged, and affect the sound quality.
● Locate speakers on level and reliable plane in case of falling. If you can not locate them on level planes, take suitable measures to prevent the unit falling.

Optimal location for enjoyment

The way in which the speakers are laid out will have influence upon bass and sound field; the aspects below should be regarded:
● Locate speakers on level and reliable floor.
● If the speakers are located too closely to floors, walls, or corners, extra bass will be generated, shield the walls and windows with thick curtains.

Main unit
To ensure good ventilation, the speaker and main unit must be kept at least 10 cm apart.

Center speaker
● It is acceptable to put the speaker directly under the television.
● If the middle speaker is placed directly on the television, the generated vibration may cause graphics image distortion.

Active Subwoofer
It should be located on the ground or stable support to the left of television for fear of generating vibration.
To the right side of active subwoofer, there should be a space of 10cm in order to ensure the effective operation of the amplifier, and to the back panel of active subwoofer, there should be a space of 10cm in order to ensure ventilation.

Step *2* Connect the speakers

Speaker cables
- 5m cable x3
- 10m cable x2
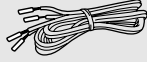
Stickers for speaker cables

1 **Stick the peeled-off stickers onto speaker cables**
Sticking peeled-off stickers on speaker cables may facilitate connection.

5m cable

$\oplus$ Brassy

$\ominus$ silvery

FRONT L — FRONT L — **❶**
① ①

FRONT R — FRONT R — **❷**
② ②

CENTER — CENTER — **❺**
⑤ ⑤

10m cable

SURROUND L — SURROUND L — **❸**
③ ③

SURROUND R — SURROUND R — **❹**
④ ④
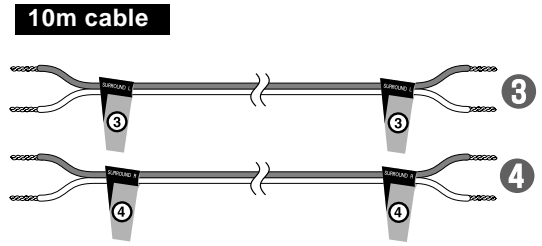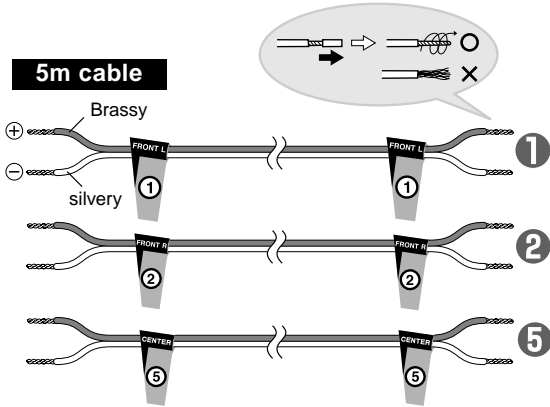
2 **Connect the speakers**
Keep the numbers on peeled-off stickers for speaker cables to be consistent with those on the terminals.

HT600

❶ Front speaker (left)

− +

INPUT

silvery Brassy

FRONT L ⊖

FRONT L ⊖

❻
Active subwoofers

Front speaker (right) **❷**

Surround speaker (left) **❸**

Surround speaker (right) **❹**

Center speaker **❺**

Click!

HT860

❶ Front speaker (left)

− +

INPUT

silvery Brassy

FRONT L ⊖

FRONT L ⊖

❻
Active subwoofers

Front speaker (right) **❷**

Surround speaker (left) **❸**

Surround speaker (right) **❹**

Center speaker **❺**

Click!
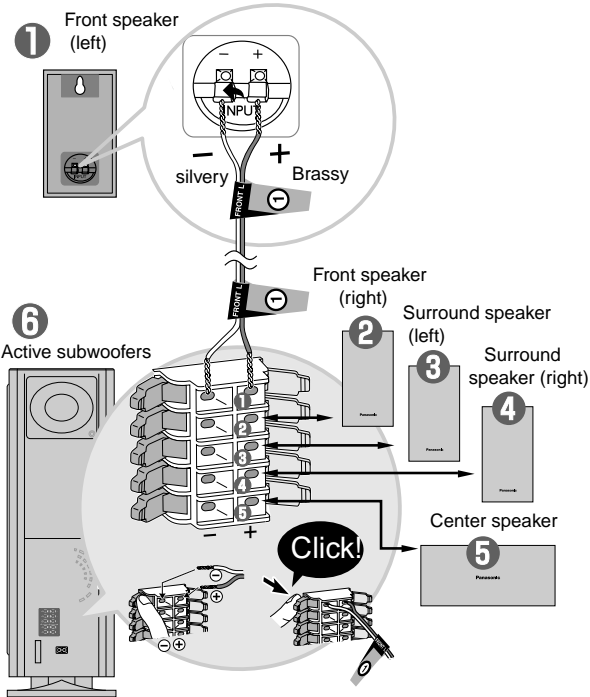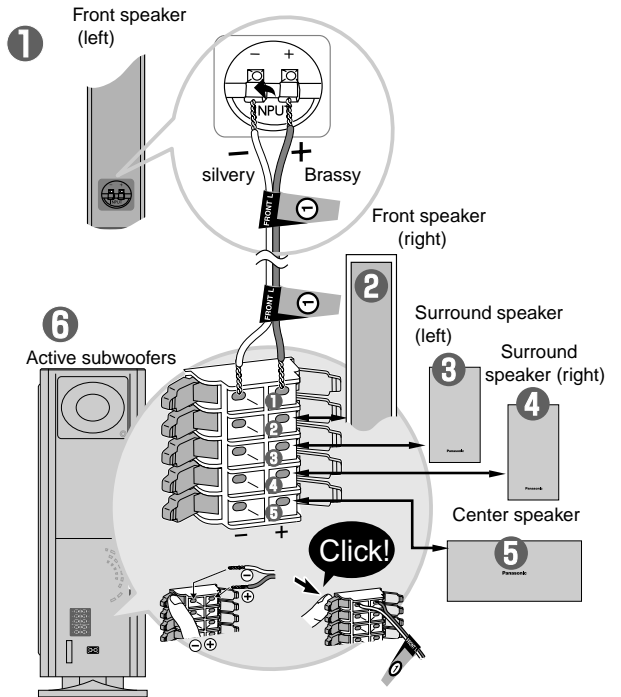
Note

Do not lead to short circuit in positive/ negative pole of speaker cable.
Make sure to connect the positive pole (brassy color) of cable to terminal (+),
the negative pole (silvery color) of speaker cable to terminal (-). Incorrect connection may damage the speaker.

Other methods for installation of center speakers and surround speakers

Attaching to a wall

Note

The walls or beams for hanging speakers should be capable of bearing a weight of 10kg.

1. Screw the screws (not included) into the wooden walls.

30-35mm
∅7.5-9.0mm
8-11mm
wall
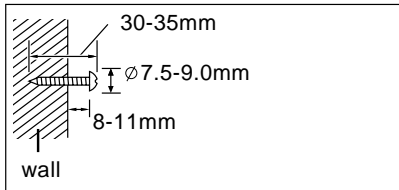
2. Fix the speakers upon the screws through the holes in the speakers
E.g.Central Speaker

level layout

200mm
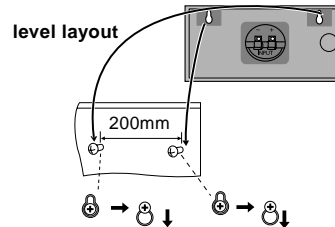
Precautions on speaker operation
● If the speakers are operated at high volume for long term, they may be damaged and their service life may be shortened.
● In following conditions, please reduce the volume in order to avoid damage.
- When the speakers give out distorted sound.
- When speakers receive the whistle form microphone or record player, the noises from the **FM** radio, or the continuous signals from oscillator, testing disc or electronic instruments.
- When sound quality is being adjusted.
- When you switch on or off the unit.

Warning
● **The speakers can be operated only together with the recommended devices, otherwise, the amplifier or speakers may be damaged, even leading to a fire. If there is any damage or you feel that there is certain abrupt change, consult professional maintainers**
● **Never hang these speakers in methods other than those described in the operating instruction.**

If there are abnormal colors on the television
Although these speakers are designed to be located near televisions, with some combinations of television and equipment, the image may be affected.
If this happens, switch off the television for about 30 minutes.
The demagnetizing function of television can correct the problem; if the problem remains the same, locate the speakers farther from the television.

How to install the baseplate of front speaker and how to use the rear clip   HT860

■ **Intallation method of front speaker baseplate when installing,please avoid the speaker falling over.**

Screw

① The installation is requested to perform on a blanket or a floor covered with soft cloth for fear of damaging the speakers.

② Reverse the front speaker box , and place the baseplate on the speaker (with the foot pads upward), and 3 holes in the baseplate should be aligned to the 3 holes in the speaker accordingly .

③ The screws attached to this packing box are used to place into the 3 holes. Use a screw driver to screw up the 3 screws until the baseplate and speaker tightly joined and secure.Please use proper strength, otherwise,the hole will be damaged.

④ Reverse the installed speaker, so that the unit is ready for use.

blanket
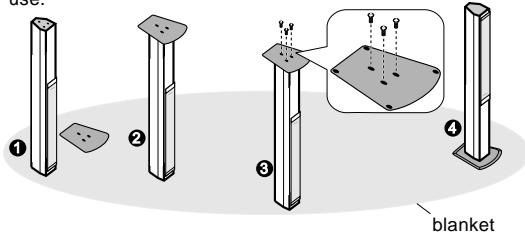
■ **How to use the clip behind speaker**

The speaker is equipped with clip at its upper rear, which may be used to prevent the speaker from falling.
User may tie the clip to a solid string, strain and fix the string onto wall behind the speaker or other solid objects.

String (not included)
wall
approx. 150mm
Speaker clip
wall screw (not included)

The wall sur face must be able to support over 30kg.
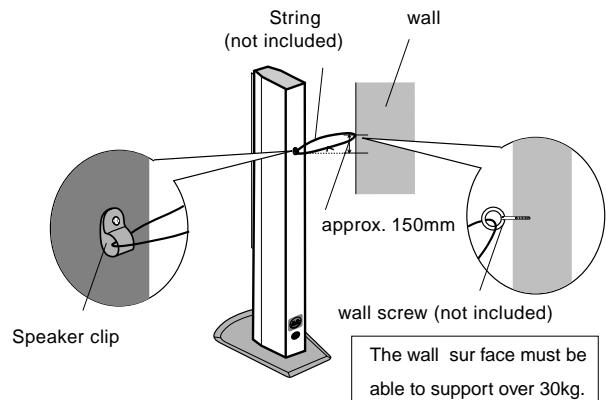
Step **3** Connect to television

Video cable

■ Connect the unit to television with VIDEO IN terminal.

Television (not included)

VIDEO IN

Video cable (included)
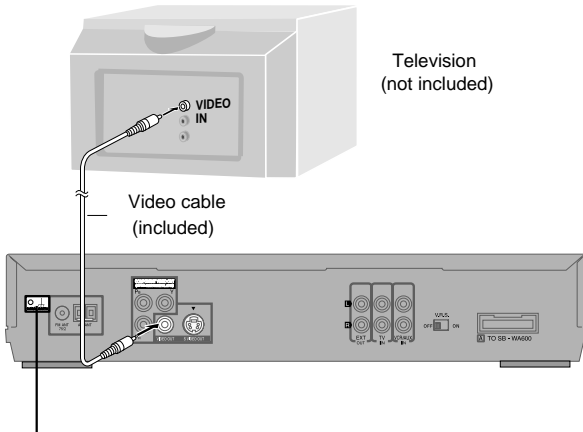
Signal grounding terminal

Connect the signal grounding terminal with the earthing wire, so as to minimize the sound distortion in the microphone in Karaoke stereo system.

Connect your unit directly to your television.

Do not connect your unit to the television through the video cassette recorder, otherwise, this will cause the protection of the copy thus resulting in abnormal play of the images.

■ Connect the unit to television with S-VIDEO IN terminals.

S-VIDEO IN

S Video cable (not included)
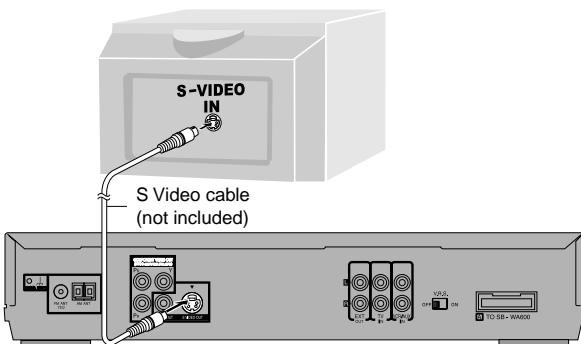
S-VIDEO OUT terminal

By separating the chrome signal (C) and brightness signal (Y),more vivid pictures can be reproduced than that reproduced by S-VIDEO OUT terminal (actual results depend on the television.)

■ Connect the unit to television with COMPONENT VIDEO IN terminals.

COMPONENT VIDEO IN
PR
PB
Y

S Video cable (not included)
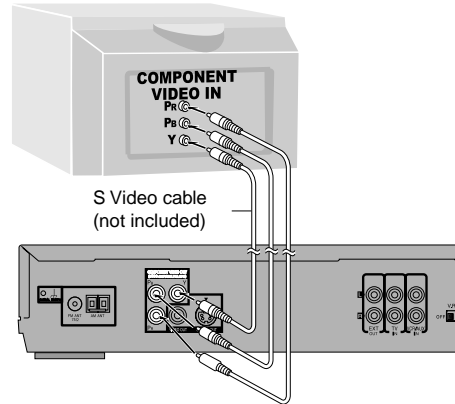
COMPONENT VIDEO OUT terminal

These terminals are applicable to either interlace output or progressive scanning output, so the pictures are clearer than those output by S-VIDEO OUT terminal.
Connection by these terminals can separately output P_B/P_R signal and Y signal, so it can reproduce hi-fi colors.

■ View image by progressive scanning (NTSC disc only)

1. Connect onto a 480P compatible television with Component Video In terminals.

   (If the unit is connected to an incompatible television, the images may not be correctly displayed.)

2. Press [PROGRESSIVE OUT] on the front panel of the main unit, and the display of the base unit shows: "PROG." (➡ Page 12).

- All Panasonic televisions applying Line-by-Line Scanning technology and with 480P input connectors are compatible. If you own another brand of television, please consult the manufacturer.

Step *4* Connect the Active subwoofer, antenna and AC power cord

25 pin connection wire   AM loop aerial   FM indoor aerial   AC power supply cord

Connect the AC power supply cord after all other connections are finished.

FM indoor aerial

Fix the other end of the aerial at spot with best reception

AM loop aerial

Click!
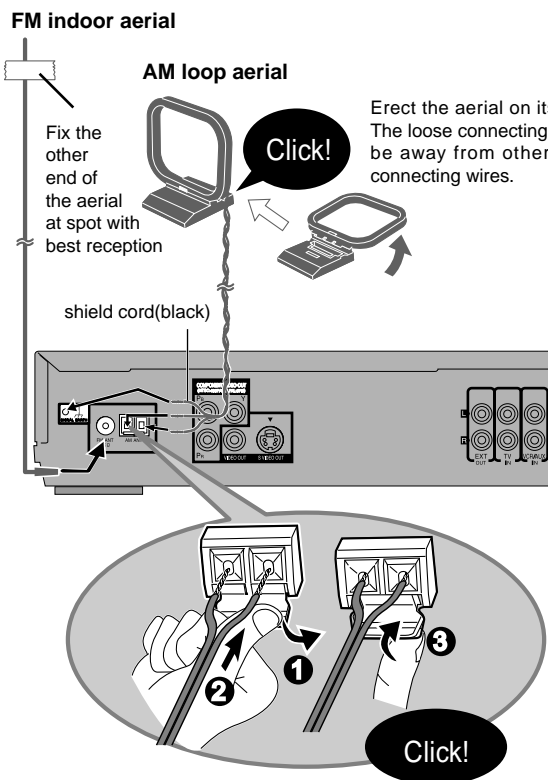
Erect the aerial on its mounting. The loose connecting wire should be away from other wires and connecting wires.

shield cord(black)

When dismantling, press and pull out the staple.

L
R
EXT OUT | TV IN | AC/REC(W) IN
V.R.S.
OFF ☐ ON
M TO SB - WA600

❶ ❷ ❸

Click!

25 PIN connection wire

When dismantling, press and pull out the staple.

Active subwoofers

Before you connect the AC power supply

Prest voltage (Back of active subwoofer)

127V ➡ 110V ➡ 220V-230V ➡ 240V

VOLT ADJ

Use flat screwdriver to turn the voltage adjusting switch at the rear of active subwoofer to the position matching with the region where the system installed. If local voltage is 115V or 120V, please set the voltage selector switch as below:

● For 115V: Set it to 110V
● For120V: Set it to 127V
● Factory preset: 240V
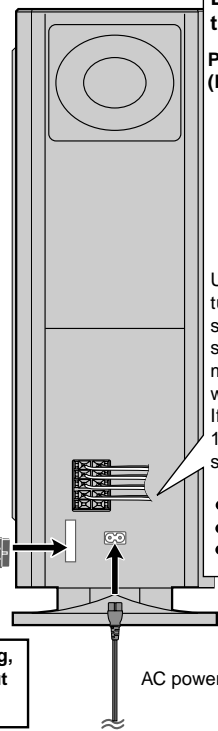
AC power supply cord

To socket of domestic power supply

Conserving power

The unit consumes a small amount of power, even when it is turned off (about 0.9W).To save power when the unit is not to be used for a long time, unplug it from the household AC outlet. Remember that the radio programs and any other memory items should be reset before next operation of the unit.

Reference

The data memorized by the unit can be preserved intact at most 2 weeks after the AC power cord is unplugged.

① R6 ， AA ， UM-3
③
②

Step *5* Remote control

■ 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.
Mishanding 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.
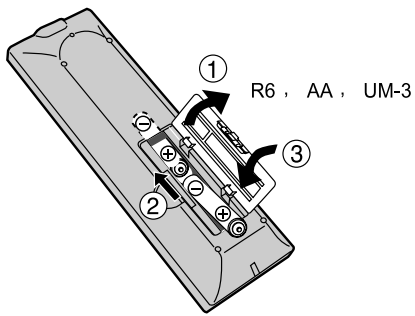
● Insert so the poles(+ and-) match those in the remote control.
● Do not use rechargeable type batteries.

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

Step *6* Quick setup
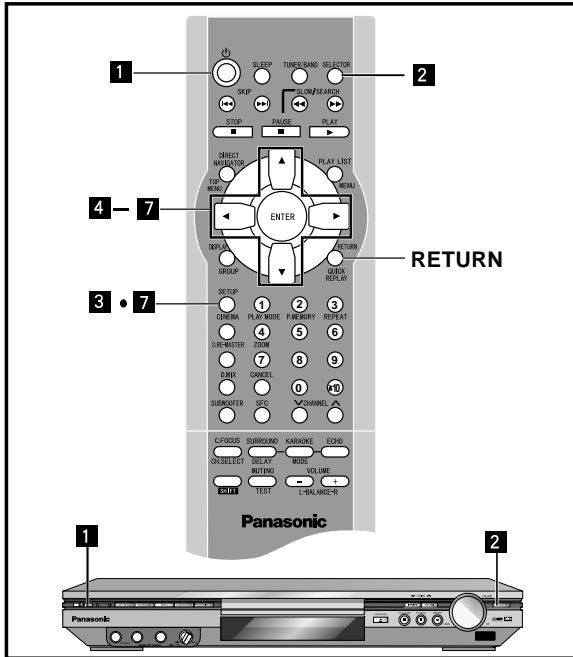
The **QUICK SETUP** screen sppears when you press [SETUP] the first time after purchase and assists you to make necessary settings.

To access this screen again later
➡ page 26, Others —— QUICK SETUP

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

1 Press [⏻] to turn on the unit.

2 Press [SELECTOR] to select "**DVD/CD**" **for signal source.**

3 Press [SETUP] to show the QUICK SETUP screen.
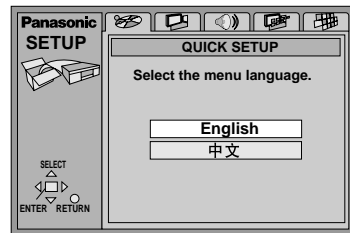
4 Press [▲ ,▼ , ◀ , ▶] to select the menu language and press [ENTER].

5 Press [▲ , ▼] to select "**Yes**" **to continue and press [ENTER].**

6 Press [▲ , ▼ , ◀ , ▶] to select the item and press [ENTER].

- Audio language (➡ page 26).
- Subtitle language (➡ page 26).
- TV Type (➡ below).
- TV Aspect (➡ below).

7 Press [ENTER] and then [SETUP] to end the settings.

To return to the previous screen
Press [RETURN].

■ TV Type

Select an option to suit the television.

- **Standard (Direct View TV)**
- **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 26,Video —TV Aspect).

- **4:3Pan&Scan (Factory preset)**
  Wide screen program extended to
  cover all of the 4:3 TV screen (unless
  otherwise restricted by the CD
  producer).

- **4:3 Letterbox**
  Wide screen program displays on
  4:3 TV screen in the form of mailbox.

Control reference guide
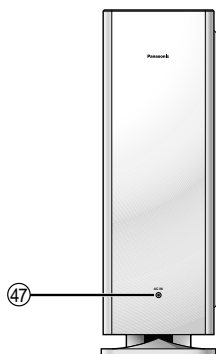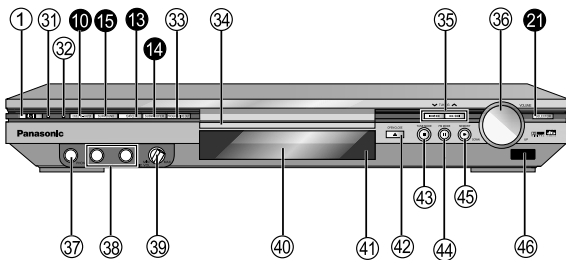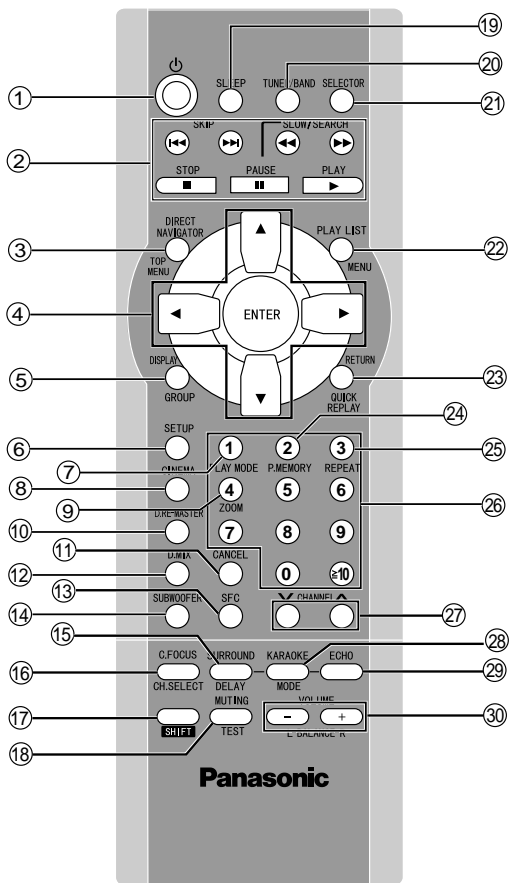
Remote control

1. **Standby/on button [⏻]** **10**
2. **Basic operating buttons** **12,13**
3. **Direct Navigator、top menu button [DIRECT NAVIGATOR、 TOP MENU]**...**13,16,17**
4. **Cursor button [▲,▼,◀ , ▶] / Enter button [ENTER]**.................. **13**
5. **Display , group button [DISPLAY、GROUP]** **13,15,18**
6. **Setup button [SETUP]** **10,27**
7. **Play mode button [PLAY MODE]** **14**
8. **Cinema button [CINEMA]** **14**
9. **Zoom button [ZOOM]** **14**
10. **Doble re-master button [D.RE-MASTER DOUBLE RE-MASTER]** **24**
11. **Cancel button [CANCEL]** **14**
12. **Down-mix button [D.MIX]** **22**
13. **Sound field control button [SFC]** **22**
14. **Subwoofer button [SUBWOOFER]** **24**
15. **Surround, time delay button [SURROUND、 DELAY]** **23**
16. **Center focus, channel selection button [C. FOCUS、 CH.SELECT]**.. **22,23**
17. **Shift button [SHIFT]**
    This key is applied to use the orange marking functions. When operating, press [SHIFT] key and relevant key simultaneously.
18. **Muting, test button [MUTING,TEST]** **23,25**
19. **Sleep button [SLEEP]** **25**
20. **Tuner/ band button [TUNER/BAND]** **21**
21. **Source selector [SELECTOR]** **12,21**
    DVD/CD → FM→AM→TV→VCR/AUX
22. **Play list, menu button [PLAY LIST、MENU]** **13,17**
23. **Return, quick replay button [RETURN、QUICK REPLAY]** **13**
24. **Position memory button [P.MEMORY]** **13**
25. **Repeat button [REPEAT]** **13**
26. **Numbered buttons**
27. **Channel button [∨ CHANNEL ∧]** **21**
28. **Karaoke, mode button [KARAOKE、MODE]** **25**
29. **Echo button [ECHO]** **25**
30. **Volume, balance button [-VOLUME+ 、L- BALANCE -R]** **23**

Main unit

Buttons ❿、⓯ 、⓭ 、⓮ and ㉑ function the same as those on the remote control.

1. **Standby/ on switch [⏻/I]**..**10**
    Press to switch the unit from on to standby mode or vice versa .
   In standby mode, the units still consumes a small amount of power.
31. **Standby/on indicator [⏻/I]**
    When the unit is connected to the AC power supply and in the standby mode, the indicator turns red; but when the power is on, the indicator turns green.
32. **Double re-master indicator**
33. **Progressive out button [PROGRESSIVE OUT] 12**
34. **Disc tray**
35. **Skip/ search, tuning buttons [|◀◀/◀◀ , ▶▶/▶▶| 、 ∨ TUNING ∧]** **12,21**
36. **Volume knob [VOLUME ,DOWN,UP]** **12**
37. **Headphone jack [PHONES]** **25**
38. **Microphone jack [1-MIC-2]** **25**
39. **Microphone volume control [MIC VOL, MIN, MAX]** **25**
40. **Display**
41. **Karaoke indicator**
42. **Open/Close button [▲ OPEN/CLOSE].. 12**
43. **Stop and Tune Mode buttons [■ TUNE MODE].......................12,21**
44. **Pause and FM Mode buttons [‖ FM MODE].........................12,21**
45. **Play and Memory buttons [▶ MEMORY].................................12,21**
46. **Remote control signal sensor**

Active Subwoofer

47. **AC power indicator [AC IN].**
    When the unit is connected to the AC power supply, the indicator is on.

Disc — Basic Play

Basic operations

TOP MENU

▲ , ▼,◄ , ► /
ENTER
GROUP

P. MEMORY

SHIFT

1

◄◄ , ►►

3

MENU

**RETURN,
QUICK REPLAY**

REPEAT

**Numbered
buttons**

4

Panasonic

⏻/|

I◄◄ /◄◄ , ►►/►►I

2   **1**

PROGRESSIVE OUT

■   **3 4**
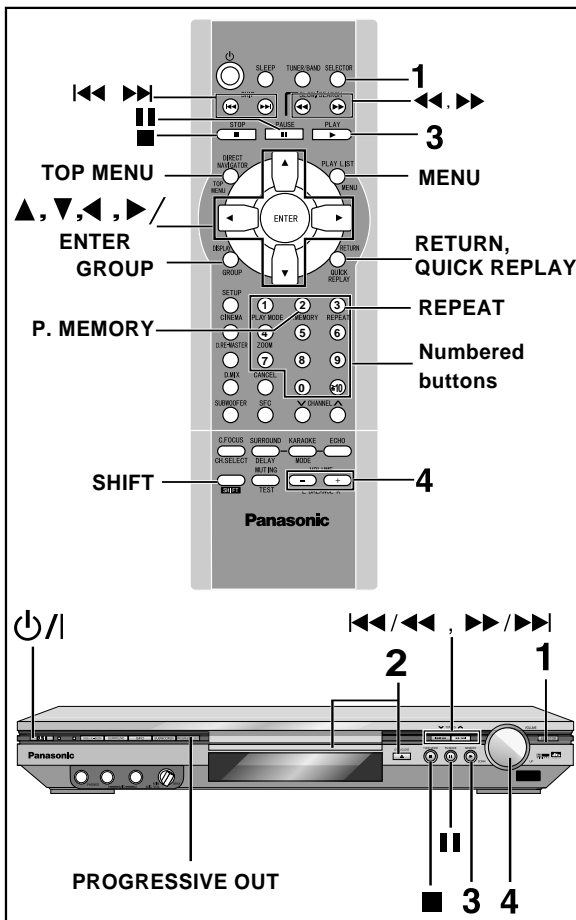
RAM DVD-A DVD-V VCD CD WMA MP3 JPEG

Preparation
- Turn on the television and select the appropriate video Input on the television to suit the connections for the player.
- Press [⏻] to turn on the unit.

1 Press [SELECTOR] to select "DVD/CD" as the signal source.
If the disc simultaneously contains audio data (WMA and MP3) and JPEG , check the setting of "Mixed Disc —Audio& Stills" in the setting menu (➡ Page 26).
Select "Stills (JPEG)" to play JPEG, or select "Audio (MP3/WMA)" to play MP3/WMA.

To view images by progressive scanning
Press [PROGRESSIVE OUT].

(PROG.)

The TV will be interrupted a moment This is normal.
If this machine connected to TV set through video output or S-video output terminal, or used to play PALdisc, it outputs interlaced scanning signal even " PROG." is displayed on the screen.

2 Press [▲] to open the disc tray, and load the disc into disc tray.

The label must face upward (when double-sided disc is adopted, the program to be played should face downward.)

3 Press [►] (Play).
Disc tray closes and play starts

WMA MP3 CD   (CD text only)

TV screen displays content information
- Open or close this display
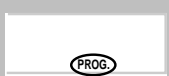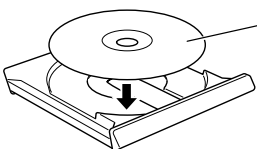 (➡ Page 18, Disc Information)
- Navigation menus can be also used to control the play (➡ Page 16)

4 Press [- VOLUME +] or turn the volume knob to adjust the volume.

– – dB ━━━ 0 dB
(Min)   (Max)

To stop playing
Press [■] (➡ page13, Resume Function).
To pause playing
During play, press [❚❚].
Press [►] (Play) to start playing again.

- [-VOLUME+] button and volume knob apply only to the speaker of the system.

Skip	Press [I◄◄] (backward) or [►►I] (forward). **Group skip** JPEG Press [▼] (backward) or [▲] (forward).
Search	Press [◄◄] (backward) or [►►] (forward). Press [►] (Play) to restart play.
Slow motion	While paused,press [◄◄] (backward) or [►►] (forward). Press [►] (Play) to restart play.
Frame by frame	While paused, press [◄] (backward) or [►] (forward). Press and hold to change in succession. Or press [❚❚] repeatedly for forward frame-by-frame.

Note
- On the main unit, press [I◄◄/◄◄] or [►►/►►I] to perform skip, and press and hold to perform search and slow-motion.
- The speed of search and slow-motion increases up to 5 steps.
- Available for dynamic pictures, search, slow motion and frame reading only.
- You can turn off the sound during search(➡ page26, Audio —— Audio during Search).

During playing VCD/SVCD
- You cannot move backwards during slow-motion and frame-by -frame.
- During operations such as skip, search or slow motion, the unit may be switched to a certain directory menu.

Note
- **If "⊘ " appears on the television.**
  The unit or disc prohibits the operation.
- Discs continue to rotate while menus are displayed even after playing an item.Press [■] when you finish to preserve the unit's motor and your Tv Aspect.
- When DVD is played, the volume may be lower than the volume for playing other signal sources. If the volume of the television or amplifier is increased, please reduce the volume before other signal source is played, avoiding abrupt volume increases.

RQTC0019

12

When menu screen appears on the television

`DVD-A` `DVD-V` `VCD`

Press the numbered buttons to select an item.
To select 1 or 2-digit number

e.g. 23:[≧10] → [2] → [3].

● When playing DVD, press [▲, ▼, ◀, ▶] to select an item,
and then press [ENTER] to confirm the selection.

Now it begins to play the selected item.
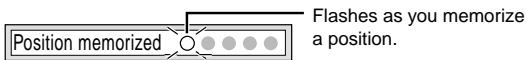
[RETURN]: Display menu scree. `VCD`

[TOP MENU]: Display the first menu screen. `DVD-V` `DVD-A`

[MENU]:Display menu scree. `DVD-V`

Position Memory function

`RAM` `DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3` (When the elapsed play time is displayed)
`JPEG`

1.During play, press [SHIFT] + [P. MEMORY].

Position memorized ○●●●● ── Flashes as you memorize a position.

2.Press [⏻] to switch the unit to standby mode, or press [▲] to remove the disc or change signal source. When the unit is switched on, or reload the disc with memory position, or you select once again "DVD/CD", the "RESUME" in the display of the main unit is on.
3.Press [▶] (Play) to start from this position, and the position memory is cleared.
DVD-Video : Press [▶] (Play) again, Chapter Review will appear (Below)
● Memorize positions on up to five discs at one time .When you memorize the sixth position, the first position is replaced.
● This function does not work while playing some DVDs or play lists on DVD-RAM.

Resume Function

When the unit has memorized the stop position, the "RESUME" in the display of the main unit is on.
Press [▶] (Play) to resume the play from this position.
● The position will be cleared in the following operations
- The unit is shut down
- Another signal source is selected or the Disc tray is opened.
● Press [■] to clear the position.

Chapter Review   `DVD-V`

When "RESUME" in the display of the main unit is on, press [▶] (Play) to display one of these messages appears:

Press PLAY to Preview Chapters   Press PLAY to Chapter Review

Press [▶](Play) again to review the first few seconds of the chapters up to the one where you memorize the position.
Play then resumes from the memorized position.
Do not press [▶](Play)if you do not want to review chapters.

Starting play from a selected item

`RAM` `DVD-A` `DVD-V` `VCD` `CD`

After press the numbered buttons.
To select a 2-digit number
e.g.23：[≧0] → [2] → [3]
`WMA` `MP3` `JPEG`
Press the numbered buttons then press [ENTER].
e.g. 123：[1] → [2] → [3] →[ENTER].
● This works only when stopped with some discs.
● When playing DVD-Audio and you want to start play from a track in a different group,select the group first (➡ right).

Selecting groups to play

`DVD-A` `WMA` `MP3` `JPEG`

1 **Press [SHIFT] + [GROUP] at the same time.**

e.g. `MP3`

Ⓖ Ⓣ Total
▶1 1   1 / 18

group number
track number in the group
track number in the disc
total quantity of tracks in the disc

2 **Press [▲ , ▼] to select the group number and press[ENTER].**

3 **Press [▲ , ▼] to select the track/picture number and press [ENTER].**
● You can also select the group and track/picture number with the numbered buttons.
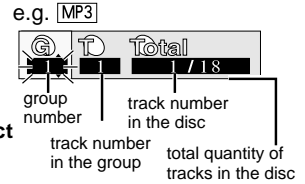
`DVD-A`

● **Play the whole groups by sequence (➡ see Page 14, All group play)**
● **Play an extra group**
Some discs have an extra group. If a menu password arises after selecting a group, you may use the number buttons to enter the password; you may also refer to the cover on the disc.

Repeat play

`RAM` `DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3` (When the elapsed play time is displayed)
`JPEG`

During play
Press [SHIFT] + [REPEAT] at the same time.
The display changes each time you press the button.

`RAM`
Program
All
Scene *1
Playlist *1
Off
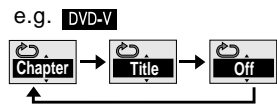
`DVD-A` `WMA` `MP3`
Track
Group
All *2
Off

e.g. `DVD-V`

↺ Chapter → ↺ Title → ↺ Off

`DVD-V`
Chapter
Title
All *2
Off

`VCD` `CD`
Track
All
Off

`JPEG`
Group
Off

↺ DVD- V

* 1 During play list play.

* 2 During all group,program and random play.

When playing VCD/SVCD with playback control.

1. Press [■] to clear "PBC" from the display.
2. Press the numbered buttons to select a track to start play.
3. Press [SHIFT] + [REPEAT],select repeat play mode.

■ **To repeat only your favorite tracks/chapters**

`DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3`

Conduct programming and play (➡ see Page 14). At the same time, press [SHIFT] + [REPEAT] to display the "All".

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.

Disc — Convenient functions

▲, ▼,◄, ▶/
ENTER
DISPLAY
PLAY MODE
CINEMA
ZOOM
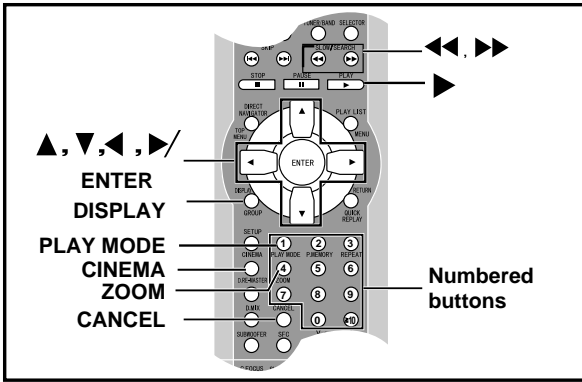**CANCEL**

◄◄, ▶▶

▶

Numbered buttons

DVD-A DVD-V VCD CD WMA MP3

While stopped

Press [SHIFT] + [PLAY MODE]

The display changes each time you press the button.

All group(DVD-A) → Program → Random → Off(Normal)

DVD-A

To select extra groups, you have to enter passwords (➡ Page 13)
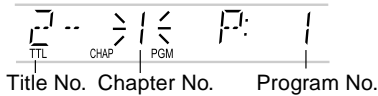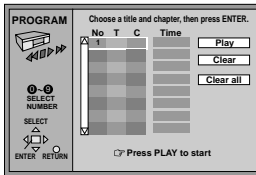
All group play

DVD-A

The unit plays tracks in all the groups on a disc.
Press [▶] (PLAY).   (ALL)

Program play

You can select up to 24 items to play in the order you choose.

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

● Some items cannot be selected.   e.g. DVD-V
● Repeat this step to program other items.
● Times are not displayed when programming DVD-Video and WMA、MP3.

```
PROGRAM          Choose a title and chapter, then press ENTER.
                 No   T   C      Time
◄◄▶▶             1                          Play
                                            Clear
0~9                                         Clear all
SELECT
NUMBER
SELECT
ENTER  RETURN              Press PLAY to start
```

Title No. Chapter No. Program No.

To select 2-digit number:

e.g. 23, press [≧10] → [2] → [3].
WMA MP3 [2] → [3] → [ENTER]

2 Press [▶] (PLAY).

Some items will not be played even if you programmed them. DVD-V

To select using the cursor buttons
Press [ENTER] and [▲ , ▼] to select an item, then press [ENTER] again to register. Select "ALL" to enter all items (on the disc or in the title or group).

Changing the program
Press [▲, ▼] to select an item.
- To change an item, repeat step 1.
- To clear an item, press [CANCEL] (or select "Clear" and press [ENTER]).

To clear the whole program
Select "Clear all" with [▲ , ▼ , ◄ , ▶] and press [ENTER].The whole program is also cleared when the unit is turned off and the disc tray is opened.
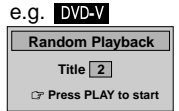
Random play

1 DVD-A DVD-V
Press the numbered buttons to select a group or a title.
DVD-V
Some items cannot be selected.
DVD-A
● You can select more than one group.   (RND)
To select all groups, select "ALL" using [◄ , ▶] and press [ENTER].
● To clear a group, press the numbered buttons corresponding to the group you want to clear.

e.g. DVD-V
```
Random Playback
Title  2
☞ Press PLAY to start
```

2 Press [▶] (PLAY).

To exit from the all group/program/random mode
Press [SHIFT] + [PLAY MODE] while stopped.

Note

Disable HighMAT disc play to use random and program play.
In the SETUP menu, set "HighMAT" TO "Disable" (➡ page 26) and reload the disc for the setting to be effective.

CINEMA

RAM DVD-A DVD-V VCD

Enjoy better pictures by changing their quality.
Press [CINEMA].
Each time you press the button:

→Cinema1: Mellows images and enhances detail in dark scenes.
↓
Cinema2: Emphasize effects.
↓
└Normal: Normal mode (Factory preset)

Cinema 1
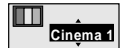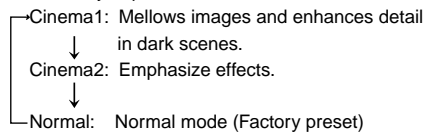
● Use the Picture Menu(➡ page20) to make finer adjustments.

Variable Zoom function

RAM DVD-A (moving pictures) DVD-V VCD

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

During play
Press [SHIFT] + [ZOOM] to select the zoom ratio.

```
x1.00
```
The zoom ratio changes each time you press the two buttons.

4:3 Standard — Indicating the video format suitable to this scale.

4:3 Standard → European Vista → 16:9 Standard
↑   ↓
Cinemascope 2 ← Cinemascope 1← American Vista

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

■ 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.

To restore the original ratio
The ratio also returns to 1.00 when you open the disc tray or space switch the unit to standby. The ratio may return to 1.00 when a menu is displayed.

■ Screen size
Movies are made using a variety of screen sizes.

16: 9 Standard
4: 3 Standard

European Vista (1. 66: 1)
American Vista (1. 85: 1)
Cinemascope 1 (2 .3 5:1)
Cinemascope 2 (2 . 5 5:1)
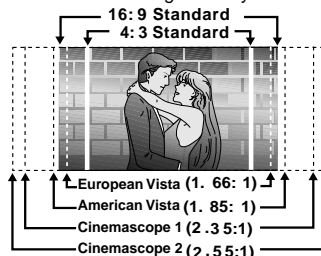
Changing soundtracks, subtitles and angles

In Disc where no language is recorded, "-" or "--" is displayed in place.
`VCD` (For SVCD only):
Soundtrack and subtitle number can be changed even if the corresponding track is not recorded with any program.

Soundtracks

`RAM` `DVD-A` `DVD-V` `VCD`

During play
1 Press [DISPLAY] to select disc information. (➡ Page18)
e.g. `DVD-V`

| 🎬 2 | © 2 | 🕐 1 : 46 : 50 | 🔊 | ◖◗Digital 1 ENG 3/2 . 1 ch | 🖼 | ON 1 ENG | 🖐 1 | ↑↓ |

Audio

2 Press [◀ , ▶] to select "Audio" or "Audio mode".

`DVD-A`

| LPCM 1 192k24b 2ch |

Selected Track

Play Track

`RAM` `VCD`

| L R |

LR→L→R

`DVD-V` Signal Type/Data (Below)

| ◖◗ Digital 1 English 3/2.1 c h |

Number of Tracks (Below)

Audio Language

3 Press [▲ , ▼] to select Audio or Audio mode.

● Press [▲ , ▼] in "Audio" menu, even though another track has not been recorded in the DVD-Audio, the unit will display the numbers of two tracks in normal conditions. The number of alive track is 1.

● You may also switch the audio in karaoke disc in this way. For details, see disc instruction.
● Refer to audio signal classification (➡ see below **B**).

A Audio/Subtitle Language

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

B Signal Type/Data

LPCM/PPCM/◖◗Digital/DTS: Signal type
k(kHz): Sampling frequency
b: Bit
ch: Channel
e.g. 3 / 2 _ . 1 ch

.1: Low frequency effect
(No display, if no signal)

0: No surround
1: Mono surround
2: Stereo surround

1: Central
2: Left front + right front
3: Left front+ right front + central

Subtitles

`DVD-A` (Moving pictures) `DVD-V` `VCD` (For SVCD only)

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

`RAM` : You can turn the subtitles on and off.

During play
1 Press [DISPLAY] to select disc information. (➡ Page18)
e.g. `DVD-V`

| 🎬 2 | © 2 | 🕐 1 : 46 : 50 | ◖◗Digital 1 English 3/2.1 ch | 🖼 | ON 1 ENG | 🖐 1 | ↑↓ |

Subtitle

2 Press [◀ , ▶] to select "Subtitle."

| ON 1 ENG |
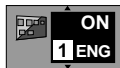
3 Press [▲ , ▼] to select subtitle language.

| ON 1 ENG | ▶ | ON 2 CHI |

I love you   我 爱 你

● In some cases, the subtitle language is not changed to the selected one immediately.
● For the language abbreviations, refer to "Audio / Subtitle Language" on the left.

Clear/Display Subtitle
1 Press [◀ , ▶] to highlight the icons below.

`DVD-A` `DVD-V` `VCD`

| OFF 1 ENG |

`RAM`

| OFF |

2 Press [▲ , ▼] to select "OFF" or "ON".
■ Change Subtitle position and brightness
    (➡ Page19)

Angles

`DVD-A` (Moving Pictures) `DVD-V`
During play
1 Press [DISPLAY] to select disc information. (➡ Page18)
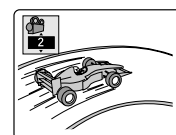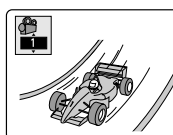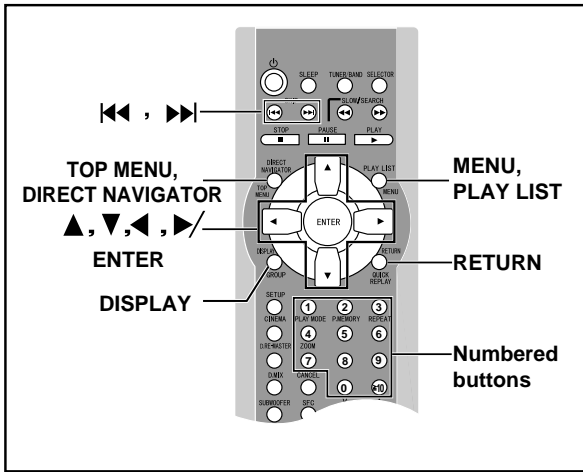e.g. `DVD-V`

| 🎬 2 | © 2 | 🕐 1 : 46 : 50 | 🔊 | ◖◗Digital 1 English 3/2.1 ch | 🖼 | ON 1 ENG | 🖐 1 | ↑↓ |

Angle

2 Press [◀ , ▶] to select "Angle ".

| 🎥 1 | ↑↓ |

3 Press [▲ , ▼] to select different angles.

| 🎥 1 | ▶ | 🎥 2 |

Navigation menus

| ◄◄ , ►► |
| TOP MENU, DIRECT NAVIGATOR |
| ▲, ▼, ◄, ►/ENTER |
| DISPLAY |
| MENU, PLAY LIST |
| RETURN |
| Numbered buttons |

Play WMA/MP3/JPEG and CD text

If the disc contains both audio data(WMA and MP3) and JPEG:
Check"Mixed Disc—Audio & Stills"in the SETUP menu
(➡ page 26).
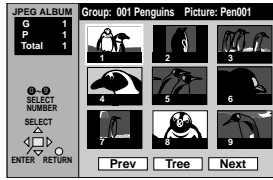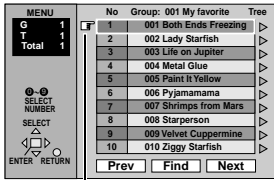Select "Stills (JPEG)" to play JPEG, or select "Audio (MP3/WMA)"
to play MP3/WMA.

[CD] (CD text only) [WMA] [MP3] [JPEG]

These menus help you find items to play.

1 Press [TOP MENU].

e.g. [MP3]   e.g. [JPEG]

" ☞ " indicates the track currently playing.

2 Press [▲ ,▼] to select the track or [▲ , ▼ , ◄ , ►] to select the picture, and press[ENTER].

To show other pages, press [▲ , ▼, ◄ , ►] to select "Prev"
or "Next" and press [ENTER].
● After listing all the tracks or pictures in one group,the
list for the next group appears.

To exit the menu
Press [TOP MENU].

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 .

Designed for
Windows
Media™

HighMAT
AUDIO·IMAGE

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

Track title search [CD] (CD text only) [WMA] [MP3]

e.g. : finding a track including the word "LOVE".
While the menu is displayed

1 Press [▲ , ▼] to select "Find" and press [ENTER].
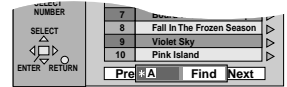
2 Press [▲ , ▼] to select "L" and press [ENTER].

Only uppercase appear but the search also includes
lower case.
Characters change in alphanumeric order each time you
press [▲].
● Press [◄◄ , ►►|] to skip between A, E, I, O and U.
● 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.
Repeat this step to enter "O" , "V" and "E".

3 Press [►] to select"Find" and press [ENTER].
The search results screen appears.

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

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.

While the menu is displayed

1 Press [►] while a track is highlighted to display the contents screen.
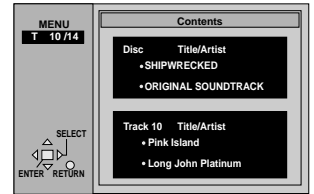
2 Press [◄ , ►] to move through the tracks and press[ENTER].

To use the tree to find a group   [WMA] [MP3] [JPEG]

While the menu is displayed
1 [WMA] [MP3]
Press [►] while a track is highlighted to display a tree screen.
[JPEG]
Press [▲ ,▼, ◄ , ►] to select "Tree"and press [ENTER].
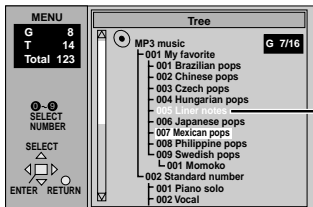
You cannot select
groups that contain
no compatible files.

2 Press [▲ , ▼ ,◄ , ►] to select a group and press [ENTER].
The audio navigation menu/album display for the group appears.

To return to the menu
Press [RETURN].

Note

WMA

- You cannot play WMA files that are copy protected.
- WMA files must have the extension".WMA"or ".wma".

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.
- MP3 files must have the extension ".MP3" or ".mp3".

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.
  - Do not alter the files in any way or save them under a different name.
  - Ensure they have the extension ".JPG" , ".jpg" , "JPEG" , or ".jpeg".
- This unit cannot display moving pictures, MOTION JPEG and other such formats,still pictures other than JPEG (i.e.TIFF) or play associated sound.

WMA MP3 JPEG

- 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.
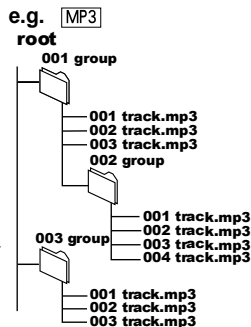**Name folders and files**
At the time of recording, prefix folder and file names with 3-digit numbers in the order you want to play them (this may not work at times).

e.g. MP3
root

```
001 group
    001 track.mp3
    002 track.mp3
    003 track.mp3
002 group
    001 track.mp3
    002 track.mp3
    003 track.mp3
    004 track.mp3
003 group
    001 track.mp3
    002 track.mp3
    003 track.mp3
```

Playing HightMAT discs

When the menu is displayed
Press [▲ , ▼ , ◄ , ►] to select then press [ENTER].
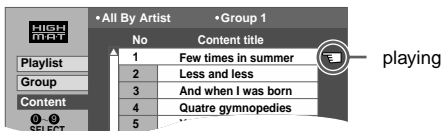When you press [ENTER],

Menu: Guide you to enter the next menu, and this menu will display the play list or another menu.

Play list: Play starts.

- **To return to the menu screen**
  Press [TOP MENU].
- **Return to the menu above the current menu**
  Press [RETURN].
- **To change the menu background**
  Press [DISPLAY].
  The background is changed to the one recorded in the disc.
- ■ **Make choice according to the list.**

•All By Artist	•Group 1
No	**Content title**
1	Few times in summer	playing
2	Less and less	
3	And when I was born	
4	Quatre gymnopedies	
5		

During play

1 Press [Menu].

2 Press [◄], then press [▲ , ▼] to switch between the play list, group and the content.

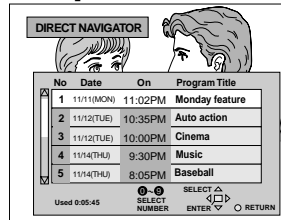3 Press [►], then press [▲ , ▼] to select an item, and then, press [ENTER].

- **To exit the list screen**
  Press [MENU].

Playing the programs on DVD-RAM

RAM

Use the program list to find programs to play.

1 Press [DIRECT NAVIGATOR].

DIRECT NAVIGATOR			
No	**Date**	**On**	**Program Title**
1	11/11(MON)	11:02PM	Monday feature
2	11/12(TUE)	10:35PM	Auto action
3	11/12(TUE)	10:00PM	Cinema
4	11/14(THU)	9:30PM	Music
5	11/14(THU)	8:05PM	Baseball

Used 0:05:45

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

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**
  e.g.23:[≧10]→[2]→[3]

3 Press [ENTER].
The program being played in the background continues.

To clear the program list
Press [DIRECT NAVIGATOR].

Playing a play list

You can play a play list created on other equipment such as a DVD Video recorder.

1 Press [PLAY LIST].

PLAYLIST	No	Date	Length	Title
	1	10/17	0:46:35	Clay Penguin
	2	10/24	0:09:15	Ashley at Prom
	3	11/29	0:12:32	Formula one
	4	12/22	0:07:30	Soccer
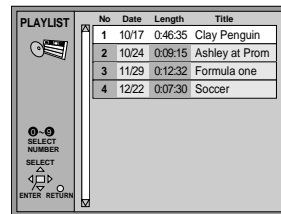
2 Press [▲ , ▼]to select the play list.
- You can select play lists with the numbered buttons.
  To select a 2-digit number
  e.g.23:[≧10]→[2]→[3]
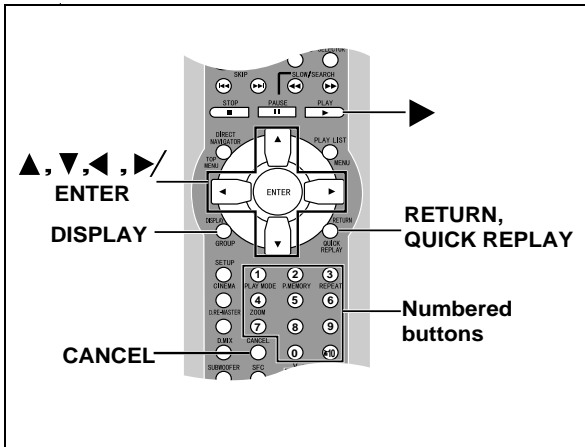
3 Press[ENTER]to start play.
- To skip scenes,press [|◄◄] or [►►|].

To clear the play list screen
Press [PLAY LIST].

Using On-Screen Menu Icons

▲ , ▼,◀ , ▶/
ENTER

DISPLAY

RETURN,
QUICK REPLAY

Numbered
buttons

CANCEL

On-Screen Menu Icons are menus that contain information about
the disc or unit and allow you to perform operations by changing
this information.

Common procedures

1 Press [DISPLAY].

Each time you press the button:

Disc information(➡ right) ➝ Progress indicator(➡ page20)
↑   ↓
Cancel On-Screen Menu ⟵ Unit information(➡ page19)
Icons display

2 | Unit information only |

While the leftmost icon is highlighted
Press [▲ ,▼] to select the menu.
Each time you press the button:

Play Menu ⟷ Picture Menu ⟷ Audio Menu ⟷ Display Menu

3 Press [◀ , ▶] to select the item.

4 Press [▲ , ▼] to select the setting.

● Change items with "▲ " or "▼" above and below with [▲ , ▼]
(press [ENTER], if the setting doesn't change).
● Change numbered items with the numbered buttons and press
[ENTER].
● Depending on the condition of the unit (playing, stopped,etc.)
and the type of software,there are some items that you cannot
select or change.
● Read the following explanations for other items.

To clear the menus
Press [RETURN] until the menus disappear.

■ **To change the position of the icons**
1 .Press [◀ , ▶] to select the Bar Position icon.
2 .Press [▲ , ▼] to move the icons.(There are 5 positions).

Disc information

e.g.			
RAM DVD-V	PG: Program number		PL: Play list number
	T: Title number		C: Chapter number
VCD CD	T: Track number		
DVD-A WMA MP3			
	G: Group number		T: Track number in group
JPEG	G: Group number		P: Picture number in group

🕐	**Time** RAM DVD-A DVD-V ●Press[▲,▼]to show the elapsed play time or remaining time for the program,play list,group,track or title(or chapter during program and random play). ●Select a position to start play by specifying a time with the numbered buttons and press [ENTER]. **Changing the time display** VCD CD Press [▲ , ▼] to show the elapsed play time, remaining time for the track, or remaining time for the disc. Elapsed play time VCD (SVCD only) WMA MP3 For display only,cannot be changed.
🔊	**Audio mode**(➡ page 15,Soundtracks) **Soundtrack language** (See A on page 15 for language abbreviations). **Audio signal type** (See B on page 15 for details.) **Karaoke vocal on/off** (Karaoke DVD only) DVD-V Solo: OFF or ON Duet:OFF,V1+V2,V1 or V2 **Current bitrate** WMA MP3 **Current sampling frequency** WMA MP3
	Subtitle language (See A on page 15 for language abbreviations.) **Subtitle on/off** ON ⟵➝OFF **Track information on/off** WMA MP3 CD (CD text only) ON ⟵➝OFF **Picture information** JPEG Full:Group title, picture title, picture size, date of shooting and camera model used.※ Date: Date of shooting only. OFF: No display. ※ Actual displays depend on the camera and data.
🎥	**Angle number**(➡ page 15)
Total	WMA MP3 JPEG **Track number in disc/Total number of tracks on disc.** WMA MP3 JPEG **Picture number in disc/Total number of pictures on disc.**
PBC	**Menu play** VCD Indicates whether menu play(PBC) is on or off
	Still picture number DVD-A Selected picture is shown during play. **Slideshow setting** JPEG ON ⟵➝ OFF **Slideshow timing** JPEG 0–30 sec

Unit information

Play Menu

A-B repeat RAM DVD-A DVD-V VCD CD WMA MP3
(When the elapsed play time is displayed)
Repeat a section between points A and B within an item.
[ENTER](start point) → [ENTER](finish point)
Clear: [ENTER]
- 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]

Repeat Mode
RAM DVD-A DVD-V VCD CD WMA MP3
(When the play time is displayed)
JPEG

RAM	DVD-A WMA MP3	DVD-V
PG:Program	T:Track	C:Chapter
A:All	G:Group	T:Title
S:Scene *1	A:All *2	A:All *2
PL:Playlist *1	OFF:Off	OFF:Off
OFF:Off		

VCD CD	JPEG
T: Track	G:Group
A:All	OFF:Off
OFF:Off	

*1 During play list play.
*2 During all group, program and random play.
When playing VCD/SVCD with content play function
1. Press [■] to clear "PBC" from the main unit. display.
2. Press the numbered buttons to select a track to start play.
3. Select repeat play mode.

Replay your favorite items/chapters

DVD-A DVD-V VCD CD WMA MP3

Start program play (➡ Page14) and " A " is displayed.

Play mode display DVD-A DVD-V VCD CD WMA MP3
---: Normal play   PGM: Program play
RND: Random play   ALL: All group play(DVD-A)

Marker
RAM :999 positions
DVD-A DVD-V VCD CD WMA MP3 JPEG :5 positions
[ENTER](The unit is now ready to accept markers).
To mark a position: [ENTER] (at the desired point)
To mark another position: [◀,▶] → [ENTER]
To recall a marker: [◀,▶] → [ENTER]
To erase a marker: [◀,▶] → [CANCEL]
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

  1–10

3. Press [▶]
- The markers are ordered by time.This means that the marker numbers can change when you add and erase markers.
- If places have been marked(e.g.with a DVD Video recorder),they are displayed.
- You can clear existing markers, but they are restored when you open the disc tray or switch the unit to standby.
- This feature doesn't work while using a play list.

Note
- This feature doesn't work during program and random play.
- Markers you add clear when you open the disc tray or switch the unit to standby.

Display Menu

4:3 Aspect
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.

Zoom (➡ page 14)
To select preset aspect ratio
Press [ENTER] and then [◀ , ▶] to select. Press [ENTER] to finish.

Subtitle Position/Brightness
(➡ page 15)

0 . 0
Subtitle Position
Subtitle Brightness

■**Change subtitle position and brightness**
1.When the subtitle icon is displayed in the screen, Press [◀ , ▶] to select "Subtitle Position " or " Subtitle Brightness ".
2.Press [▲ ,▼] to make adjustment.
- Between 0 and 60, adjust at a step of 2.
- For brightness adjustment, select "Auto", the brightness will adapt to the background brightness. You may also adjust between 0 and 9.

Bit **Bitrate Display on / off**
RAM DVD-A (Moving Pictures) DVD-V VCD
When you select "ON" :
During play: Shows the average bitrate(approximate values)of the video being played
While paused:Shows the date volume of the frame and type of picture (➡ page 29, Glossary-I/P/B)
While the display is on, press [◀ ,▶] to change the display:

9.438 Mbps

[◀ , ▶]

• Bitrate   ✓ 5.0
Cur. 7.507 Mbps   ‸‸‸‸‸   Mbps
Ave. 6.730 Mbps

Current bitrate
Average bitrate   A record of bitrates for a sampling period

OSD Brightness(-3 or +3)
Adjust the brightness of the on-screen displays.

Unit information

Audio Menu

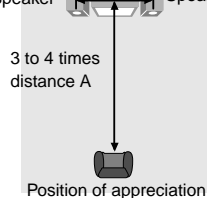|	
	Advanced virtual surround RAM DVD-V VCD (only 2 sound tracks or more) If you use two front speakers or wear a headphone (to connect this unit onto a device with earphone plughole), you can resort to high-end virtual surround sound to experience surround sound effects. When the unit plays discs recorded with surround effect, the sound will become even wider in effect, and seems as if it is coming from virtual speakers at two sides. **Press [▲ , ▼] .** Each time when you press this button: ┌→ SP1/HP1: natural effect │ ↓ │ SP2/HP2: enhanced effect │ ↓ └── SP off/HP off: cancel (Factory preset) **Change the mode:** Press [◀] , then press [▲ , ▼] , and choose " SP " or " HP ". Speaker |◀─ A ─▶| Speaker **The best position for appreciation** **<When TV speakers are in use>** Distance A = width of TV set 3 to 4 times distance A Position of appreciation ● As to some disks, the high-end virtual surround sound does not work or work poorly. ● In case of distortion, turn off the high-end virtual surround speakers. ● When using such effects, be sure to turn off the surround sound effect on each and every equipment items that you have connected.
	Double re-master (➡ page 24)
	Dialogue enhancer DVD-V (Dolby Digital, DTS, 3-channal or more, where the dialogue is recorded in center channel). This makes the dialogue in movies easier to hear. ON ←→ OFF (Factory preset) ● This does not work or has less effect with some discs.

Picture Menu

	Picture mode **N:** normal mode **S:** soft mode **F:** fine mode (Details are sharper) **C1** (Cinema 1): Mellows images and enhances detail in dark scenes. **C2** (Cinema 2): Sharpens images and enhances detail in dark scenes. **U1/U2:** user mode (➡ below)
	Video output mode **480I:** Interlace video **480P:** Progressive video (Progressive output not possible with PAL signals)
	Transfer mode Select the method of conversion for progressive output to suit the type of material being played. **Auto1(normal):** For viewing film material **Auto2:** For viewing film material(the same as Auto 1, but able to convert 30-frame-per-secon progressive video) **Video:** For video material

■ **User mode: Press [▶] while** " **U1** " **or** " **U2** " **is highlighted and then press [▲ , ▼]to select** " **1** " **or** " **2** ".

U1: User mode 1

	Contrast(-7 to +7) Adjusts the contrast between light and dark parts of the picture.
	Brightness(0 to +15) Adjusts the picture brightness.
	Sharpness(-7 to +7) Adjusts the sharpness of the edges of the horizontal lines.
	Color(-7 to +7) Adjusts the shade of the picture's color.
	Gamma (0 t o+5) Adjusts the brightness of dark parts of the picture.

U2: User mode 2
(Video output mode ➡ above)

Progress indicator

Indicates how far you have played through an item.

e.g. DVD-V   **Current position**

1 2 2   ▶   🕐 1 : 23 : 54 ↕

Condition-play,pause, or slow/search

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 and random play).
Elapsed play time VCD (SVCD only) WMA MP3
For display only,cannot be changed.

■ **Changing play speed** DVD-A (Moving Pictures) DVD-V (Dolby Digital only)

You can slow down or speed up play.
Press [◀] (slower) or [▶] (faster).

×1.2 ▶

There are five speeds:
× 0.8 ←→ × 0.9 ←→ × 1.0(normal speed) ←→ × 1.2 ←→ × 1.4
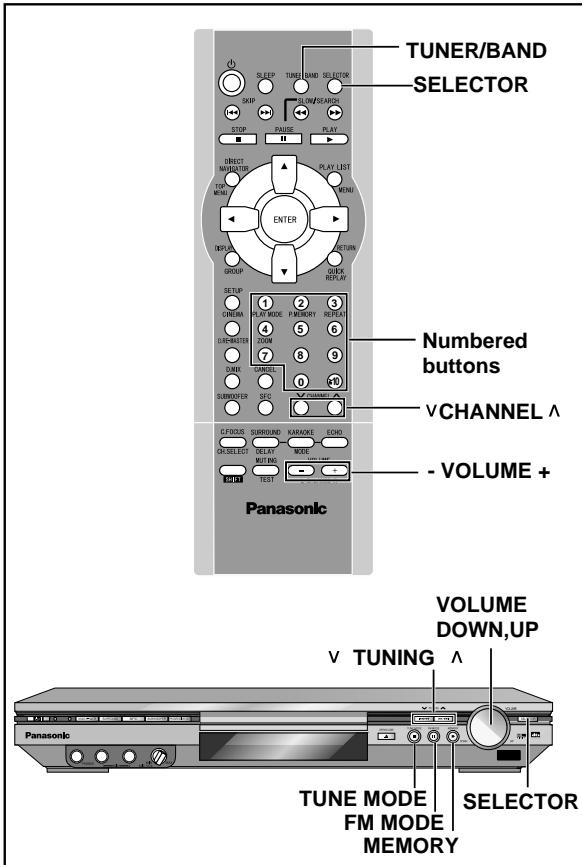
● After you change the speed:
   - If you turn off the SUPPER SURROUND SOUND output is in stereo.
   - You cannot use ADVANCED VIRTUAL SURROUND,

● Sound is stereo as long as " × 1.0 " is orange. If you turn off the SUPPER SURROUND SOUND output is in stereo.

To return to normal play
Press [▶] (PLAY).

Radio

TUNER/BAND

SELECTOR

Numbered buttons

∨CHANNEL ∧

- VOLUME +

VOLUME DOWN,UP

∨ TUNING ∧

TUNE MODE
FM MODE
MEMORY

SELECTOR

Manually tune the radio programs by selecting radio frequency. In addition, you can also select preset channels so as to tune the radio programs conveniently.

Manual tuning

1 Press [SELECTOR] to select "FM" or "AM".
Press [TUNE MODE] on the front panel of the main unit and select "MANUAL".
Each time you press the key, display will vary in turn:

MANUAL ◄────────► PRESET

2 Press [∨ TUNING ∧] to select the frequency of the desired radio station.
TUNED :Appears when a radio station is tuned.
ST : Appears when a stereo FM radio program is tuned.

TUNED ST

Keep on pressing [∨TUNING∧] till frequency begins to change quickly.
The unit will start auto tuning, and tuning will be stopped automatically when tuned to a certain radio station.
• To cancel automatic tuning, Press [∨ TUNING ∧] again.

3 Press [- VOLUME +] or turn the volume knob to adjust the volume.

If it is too noisy in FM stereo broadcast

Press [FM MODE] to cancel " ST " display .

If the receiving effect is worse, this mode may improve sound quality, but the radio program is only monophony.
Press [FM MODE] again to cancel the mode.
The mode is canceled when frequency is changed.
Close monoophony to enjoy an ordinary effect.
The stereo and monophony radio programs will be automatically played as per the relevant receiving mode.

AM frequency-step-setting (only for Asia)

Before leaving the factory, the unit is preset to be 9 kHz, but it can be changed to receive the radio programs that are distributed within the step of 10kHz.

To change the step(9kHz ◄────────► 10kHz)

① Press [SELECTOR] on the main unit to select FM.
② Keep on pressing [SELECTOR].
When "AM" is displayed several seconds later, current minimum frequency will flicker on the display. Continue to press the button, the minimum frequency will vary while the step will also vary.
To return to original step, just repeat the above procedures.

Note
Any AM radio programs of the appointed frequency will be changed by the procedures. Hence, these radio stations should be appointed again.

Preset tuning

The preset channels can be simply selected.
You can preset up to 15 radio stations into the FM and AM bands.

Automatic presetting

1 Tune to "FM87.50MHZ" (➡see Manual tuning at left side)

2 Keep on pressing [MEMORY].
When frequency starts to change, loosen this button.
When setting a radio channel, "PGM" will blink; then the program on the set radio channel is played.

3 Tune to select "AM 522kHz" (or "AM 520kHz") frequency .(➡ see Manual tuning at left side)

4 Keep on pressing [MEMORY].
When frequency starts to change, loosen this button.
When setting a radio channel, "PGM" will blink; then the program on the set radio channel is played.
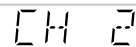
■ **When "ERROR" appears**
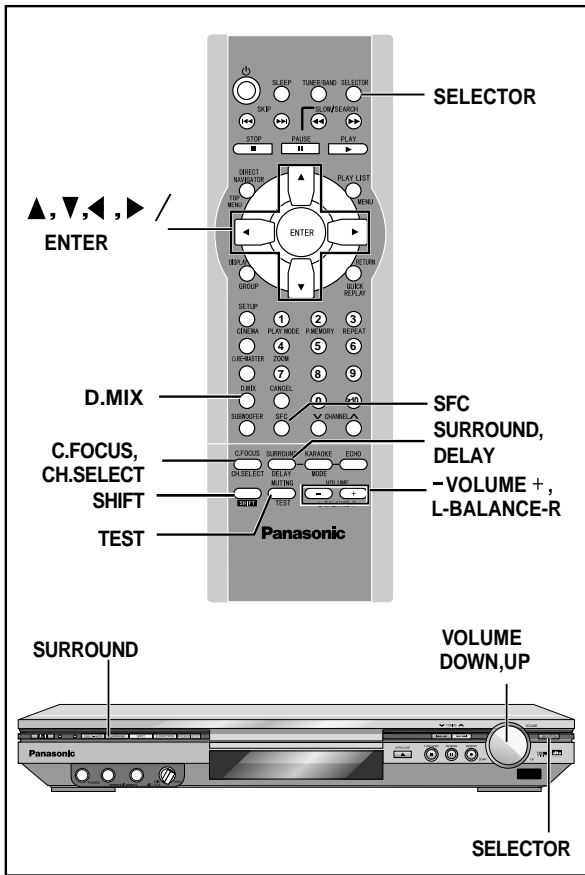The appointing operation is a failure. Please manually preset the programs.

Manual presetting

1 Tune out a radio (➡ see Manual tuning at left side).

2 Press [MEMORY] for twice.

3 Press [∨TUNING∧] and choose a channel.

4 Press [MEMORY].
If another radio is preset to a certain channel, the existing radio will be erased.

Selecting channels

1 Press [TUNER / BAND] to select " FM " or " AM ".
Or
Press [SELECTOR] on the main unit to select "FM" or "AM".

2 Press numbered buttons to select the channel.
Select 2-digit number:
e.g. when you select 12, press [≧10] → [1] → [2]
Or
Press [TUNE MODE] on the main unit, and select "PRESET".
Press [∧CHANNEL] or [CHANNEL∨] to select the channel.

CH 2

SELECTOR

▲,▼,◀,▶ /
ENTER

D.MIX

C.FOCUS,
CH.SELECT

SHIFT

TEST

SURROUND

SFC
SURROUND,
DELAY

−VOLUME +,
L-BALANCE-R

VOLUME
DOWN,UP

SELECTOR

- If the unit is connected to headphone, Dolby Pro Logic, super surround, center focus and subwoofer adjustment are impossible to use.
- When these systems of sound field are commonly used together with other certain signal sources, sound quality will be worse. Here you should turn off the system of sound field.

DOLBY DIGITAL and DTS

- Dolby Digital and DTS are adopted for the digital coding system in DVD for bearing the surround. They both were developed for cinemas.
- The unit can automatically identify and decode these codes.

The software, which is coded by Dolby Digital, is provided with the tag.

The software, which is coded by DTS, is provided with the tag.

Play Dolby Digital and DTS signal source
" Dolby Digital" or "DTS" indicator lights.

To mix Dolby Digital or DTS (5.1 channel)signal into double channels.
Press [D.MIX].

To cancel it, Press [D.MIX]

D.MIX

SOUND FIELD CONTROL

Press [SFC] to select a setting.

SFC

Each time you press the button, the settings varies as follows:
HEAVY: to increase the forcefulness of rock music.
CLEAR: to obtain distinct treble zone.
SOFT: for background
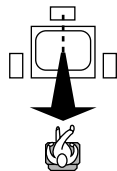**FLAT:** to cancel (no effects added) (factory preset).

To check current setting:
Press [SFC].

CENTER FOCUS

It enables you to feel that the sound from the center speaker is being produced by the television.

Press [C. FOCUS]

C.F

- When super surround is in operation, this function does not work.
- When Dolby Pro Logic is on, the effect of the function is worse.

When you enjoy a singnal source in double channel , press [SURROUND], Each time when you press, the screen on the main unit will display by the following order:

SRND OFF (SURROUND OFF)
↓
DOLBY PL (DOLBY PRO LOGIC)
↓
S.SRND (SUPER SURROUND SOUND)
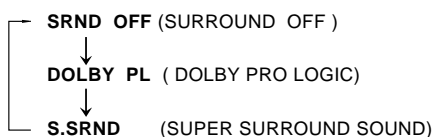
DOLBY PRO LOGIC

DOLBY PRO LOGIC is developed for better scene sensation of signal sources coded by Dolby surround. The location sensation is improved by addition of a center and surround channel.

The software coded by Dolby surround is provided with the identification tag (DVD, CD, VCD, LCD and video cassette).
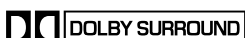
DOLBY SURROUND

1 **Press [SURROUND] to select** "**DOLBY PL**".

DOPL

2 **The unit plays the signal source coded by Dolby surround**

To cancel it
Press [SURROUND] select "SRND OFF".

Note
When the unit plays the DVD recorded by DTS, you should close the function of DolbyLogic. If the function is enabled, the surround effect cannot be properly reproduced.

SUPER SURROUND SOUND

Auditory sensation is improved by enhancement of stereo surround effect.
Press [SURROUND] to Select "**S.SRND**".

S.SRND

● Adjust the volume of surround speakers to get optimal surround effect.
 (See "Volume control of Speaker" at right side)

Note
● When the unit plays the DVD recorded by Dolby Digital or DTS, you should close the function of super surround. If the function is in operation, the surround effect cannot be properly reproduced.

Volume control of speaker

When you enjoy a certain signal source, please adjust and align the speaker levels if you feel an appearance of nonconformity.

Preparations
Press [SELECTOR] to select " DVD/CD" .   Press [surround] to select "DOLBY PL" or "SRND OFF".

① Press [SHIFT] + [TEST] to output a test signal.
 Lch: front left channel
 Cch: center channel
 Rch: front right channel
 RSch: right surround channel
 LSch: left surround channel

② Press [- VOLUME +] or turn the volume knob to set the normal level of signal source for enjoyment.

③ Adjust the balance between front speakers.
 Press [L-BALANCE-R] button, choose "L" or "R".

④ Press [▲] (for increase) or [▼] (for decrease) .
 C, RS, LS: (-10db to +6 db)
 To stop the test signals, Press [SHIFT] + [TEST] again.

To adjust speaker level during play
① Press [SHIFT] + [CH.SELECT] to select speaker.

Cch → RSch → LSch → SWch

SWch: Active subwoofer

② Press [▲] (for increase) or [▼] (for decrease) .
 C, RS, LS: (-10db to +6 db)
 SW: (-10db to +6 db)

③ Adjustment of the time delay on the surround speakers.(DOLBY PRO LOGIC only)
 Press [SHIFT] + [DELAY] .
 Each time when you press, the screen on the main unit will display by the following order:
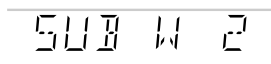 DELAY 15ms → DELAY 20ms → DELAY 30ms

Note
When the "S.SRND" in the display of the main unit is on , you may adjust Sch.

Sound field/Sound quality

RQTC0019

D.RE−MASTER

SUBWOOFER

DOUBLE RE−MASTER
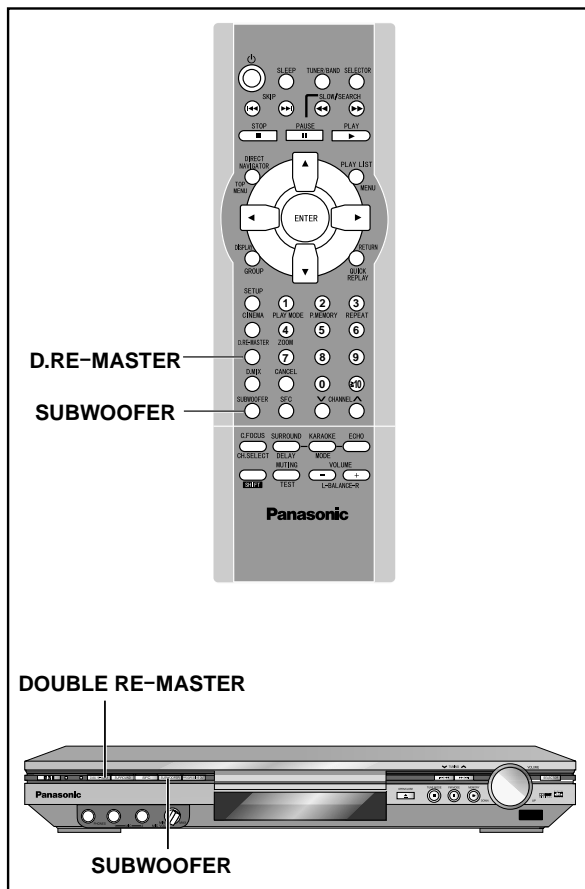
SUBWOOFER

Adjust the woofer

Press [SUBWOOFER].

$$SUB\ W\ 2$$

Each time you press the button, the settings vary as follow:

SUB W 1→ SUB W 2 → SUB W 3 → SUB W 4 (factory preset)

Bass effect will increase as per the level order.

Double re-master——enjoying more natural sound

RAM DVD-A DVD-V CD

Discs recorded with 2 sound tracks at a frequency of LPCM44.1 or 48 kHz.

This function can add in higher frequency signals that are not available on the disc, and allow you to appreciate more natural sound effects.

WMA MP3

Discs recorded at 44.1 or 48 kHz.

This function can re-produce the frequency that has been lost in the recording course, and can thus provide sound effects more close to the original sound.

During play

1/48kHz

Output sampling frequency

Press [DOUBLE RE-MASTER] or [D.RE-MASTER] .

The indicator on the main unit lights.

Each time you press the button:

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

Virtual Rear Surround

If the surround speakers are placed nearby the front speakers, the function of virtual rear surround makes the sound from front surround speakers as if coming from behind you.

Set switch [V. R. S.] on the rear panel of the main unit to ON.

Virtual Speaker

V.R.S.

Convenient functions

SLEEP

KARAOKE, MODE

ECHO

SHIFT

MUTING

VOLUME +

VOLUME −

MIC VOL MIN,MAX

VOLUME DOWN,UP
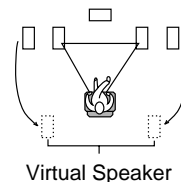
Use headphones

1 Reduce volume and connect to the headphones (not included).
Specifications of the headphones plug: 6.3mm stereo
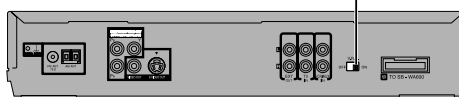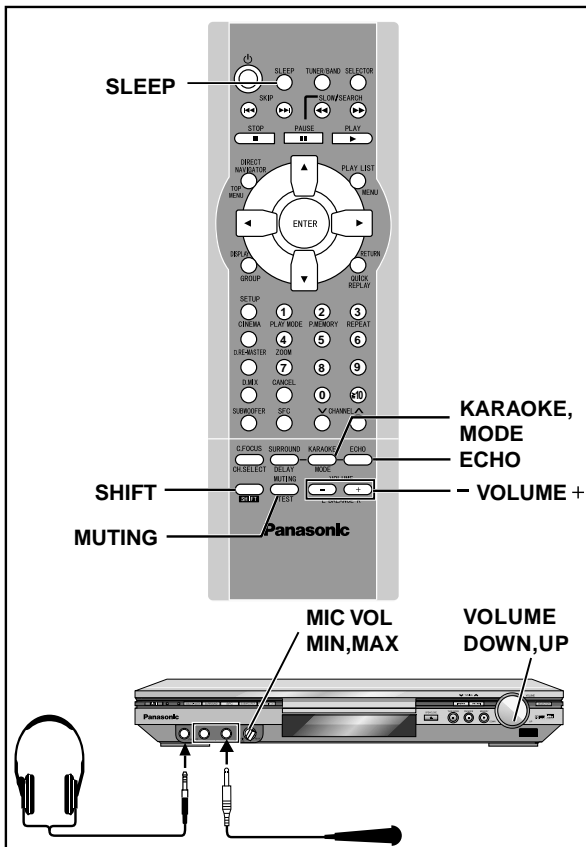
2 Use [-VOLUME+] or volume knob to adjust the headphone volume.
Sound will automatically switch to stereo (2-channel). If there is distorted sound, just turn on the dynamic range compression (➡ page26, Audio-Dynamic Range Compression)

Note
Never enjoy it for long time for fear of hearing damage.

Use karaoke

1 Turn [MIC VOL] to "MIN", and connect the unit to microphone.
Specifications of microphone jack: 6.3mm mono.

2 Insert a disc, and begin to play.

3 Use [- VOLUME +] or volume knob to adjust the main volume.

4 Adjust the microphone volume.

Karaoke vocal on/off

① During play, press [KARAOKE] the KARAOKE indicator on the display of the main unit will light up.

② Press [SHIFT] + [MODE]
Each time when you press, the screen on the main unit will display in the following order:

$$LR \quad \rightarrow \quad L \quad \rightarrow \quad R \quad \rightarrow \quad V.M$$

● L (MONO-LEFT): The left and right speakers (L/R) output the audio of left channel.

● R (MONO-RIGHT): The left and right speakers (L/R) output the audio of right channel.

● LR (STEREO): Stereo output, the left and right speakers (L/R)separately output the audio from the left channel and right channel.

● V.M: mute singing.

Add Echo Effect

Press [ECHO].

Press this button repeatedly to switch between:
ECHO1→ECHO2→ECHO3→ECHO4→ECHO5→ECHO6→ECHO7→ECHO OFF

The echo effect increases by the level in order.

Muting the volume

To cancel sound
Press [MUTING].

To cancel muting (restore audio)
Press [MUTING] again.
● The [MUTING] button apply only to the speaker of the system.

Setting the unit to turn off — SLEEP timer

When the set time is reached, the Sleep Timer turns off the system.
Press [SLEEP] to select the time (minute)

$$\boxed{\text{(SLEEP)} \qquad 5LEEP \qquad 30}$$
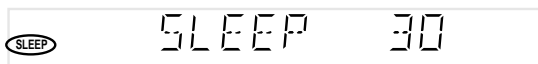
Each time when you press :

SLEEP 30 → SLEEP 60 → SLEEP 90

↑ ↓

SLEEP OFF ← SLEEP 120

To cancel the timer:
Press [SLEEP] to select "SLEEP OFF"

To confirm the setup:
Press [SLEEP] again, display the remaining length of timed shutdown.

To change the setup:
Press [SLEEP] to display the time remained, press again to select the desired time.

Change settings

Various settings of the unit are listed in the table. You can change these settings to suit your preferences and requirements. These settings are stored in the unit and do not change even if you shut down the unit. For details, see common operation procedures on page 27.

Menus	Items	Options (Underlined items are the factory preset)	
Disc	**Audio** Choose the audio language.	English (Language options) / Original ※1 Other ✱✱✱✱ ※2	**Language options** ※4 French German Italian Spanish Portuguese Swedish Dutch ※5 Chinese
	Subtitle Choose the subtitle language.	Automatic ※3 English (Language options) Others ✱✱✱✱ ※2	
	Menus Choose the language for disc menus.	English (Language options) Other ✱✱✱✱ ※2	
	Ratings(➡ page 27) ● 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 No Limit 1 to 7 ※6 0 Lock All - **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.	4:3 Pan & Scan 4:3 Letterbox 16:9	
	TV Type Select in accordance with the type of TV.	Standard (Direct View TV) CRT Projector LCD TV/ Projector Projection TV Plasma TV	
	Still Mode Specify the type of picture shown when paused.	Automatic Field Frame	
	NTSC Disc Output Choose PAL 60 or NTSC output when playing NTSC discs (➡ page 4 Video systems)	PAL60:When connected to a PAL television NTSC：When connected to an NTSC television (**For Asia**: "NTSC" is the factory preset.)	
Audio	**Speaker Setting** (➡Page 27) Select settings according to the audio system and the listening environment.	Multi-channel: Center Delay: 0/1.3/2.6/3.9/5.3ms Surround(L/R) Delay: 0/5.3/10.6/15.9ms	
	Dynamic Range Compression (Dolby Digital only) Change the dynamic range for late night viewing.	Off On	
	Audio during Search ※7 Choose whether to have sound during search.	On Off	
Display	**Menu Language** Choose the language for these menus and the on-screen messages.	※4 English Français Deutsch Italiano Español Português Svenska Nederlands ※5 English 中文	
	On-Screen Messages Choose whether to show on-screen messages or not.	On Off	
Others	**HighMAT** Play HighMAT discs as HighMAT or as regular WMA/MP3/JPEG discs (Reload the disc to activate the setup).	Enable: Play HighMAT discs as it is. Disable: Play HighMAT discs as ordinary 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).	Audio(MP3/WMA) Stills(JPEG)	
	DVD-Video Mode Select picture play mode in DVD-Audio CD. Once the CD is removed or the unit is turned off, the setting will return to "OFF " status.	Off: Play DVD-Audio as it is. On: Play the DVD-Video contained in the DVD-Audio discs.	
	QUICK SETUP(➡ page10) Answer questions to make basic settings.	Yes No	

※1 The original language of each disc is selected.

※2 Input a code number with the numbered buttons(➡ page 29)

※3 If the language selected for "Audio" is not available, subtitles of that language will automatically appear if available on that disc.

※4 Units for Russia.

※5 Units for Asia.

※6 Prohibits play of DVD-Video with corresponding ratings recorded on them.

※7 Audio will be heard when playing some DVD-Audio despite the settings you make here.

Other functions

RQTC0019

26

▲ , ▼ , ◄ , ► /
ENTER

SETUP

CANCEL

►

RETURN

Numbered buttons

Common procedures

See page 26 for menu and option details.

1 Press [SETUP] to show the menus.

- The **QUICK SETUP** screen sppears when you press [SETUP] the first time after purchase. (➡ Page10)

2 Press [◄ , ►] to select menu's tab.

The screen changes to display the menu.

Disc ↔ Video ↔ Audio ↔ Display ↔ Others

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

4 Press [▲ , ▼ , ◄ , ►] to select options, and then press [ENTER].
The screen now shows the menu again.

To return to the previous screen
Press [RETURN].

To exit the SETUP menu
Press [SETUP].

Entering password (Ratings)

DVD-V

The password screen is shown when you select levels 0 to7.

1. Input a 4-digit password with the numbered buttons.
If you enter a wrong number, press [CANCEL] to erase it.

2. Press [ENTER].
The lock symbol appears closed to show the rating is locked. Do not forget your password.

3. 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.

Change the delay time (speaker setting)

DVD-V

(For central-placed speakers and surround speakers only)
For optimum listening with 5.1-channel sound, all the speakers, except for the Active subwoofer, should be the same distance from the seating position. If you have to place the central or surround speakers closer to the seating position, adjust the delay time to make up for the difference.

Central delay time

Exit

Surround delay time
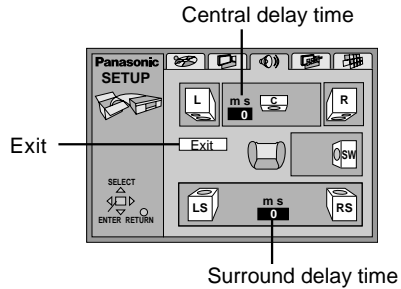
1. Press [▲ , ▼ , ◄ , ►] to select the item and press [ENTER].
2. Press [▲ , ▼] to select the setting and press [ENTER].
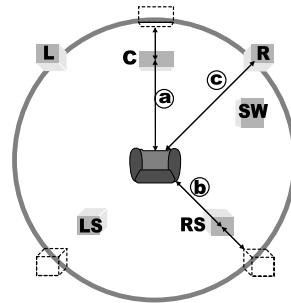
If the distance ⓐ (from the central speaker) and ⓑ (from the surround speakers) are the same as or greater than ⓒ (from the front speakers), leave the delay time as "0" the factory preset. If either distance ⓐ or ⓑ is less than ⓒ, find the difference in the relevant table and change to the recommended setting.

ⓐ **Center speaker**

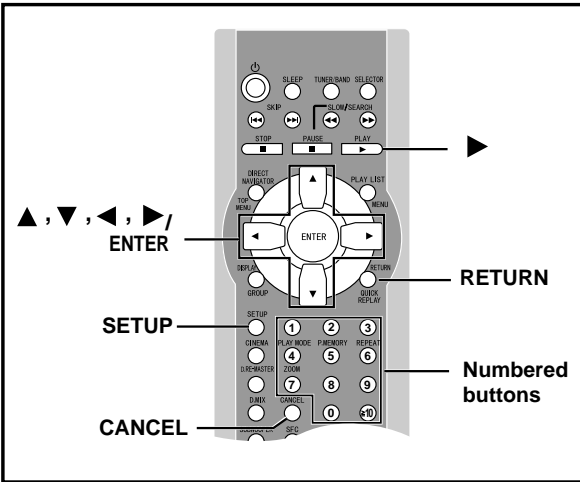| Difference	Setting
Approx.50cm	1.3ms
Approx.100cm	2.6ms
Approx.150cm	3.9ms
Approx.200cm	5.3ms

ⓑ **Surround speakers**

Difference	Setting
Approx.200cm	5.3ms
Approx.400cm	10.6ms
Approx.600cm	15.9ms

Upon completion:

Press [▲ , ▼ , ◄ , ►] to select "Exit" and press [ENTER]

Other functions

Appreciate external signal source/record into other equipment

- Turn off the unit before connection.
- For specific details, refer to operating instructions of other equipment. (Cables and equipment are not included).

Audio cable
White(L)
Red(R)
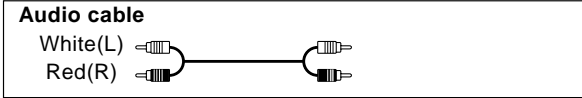
If you want to receive TV audio signals by the unit, connect the unit to the AUDIO OUTPUT terminal of television.

L
R

Television

Back of the unit

V.R.S.
OFF ☐ ON

EXT OUT
TV IN
VCR/AUX IN

A TO SB - W

B

A

L
R
REC IN
PLAY OUT

Video recorder
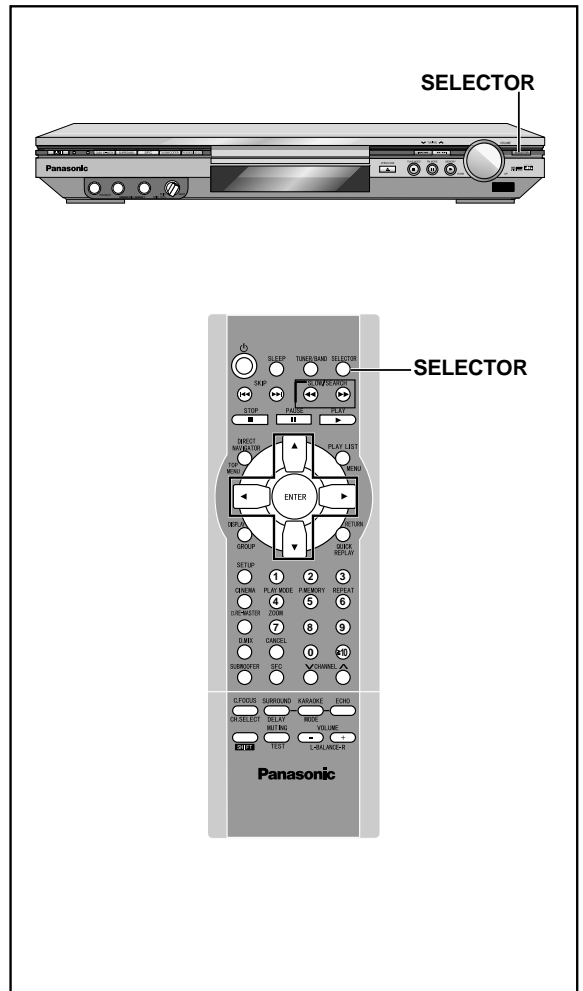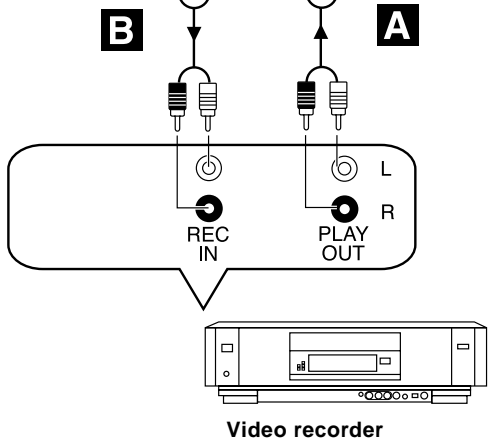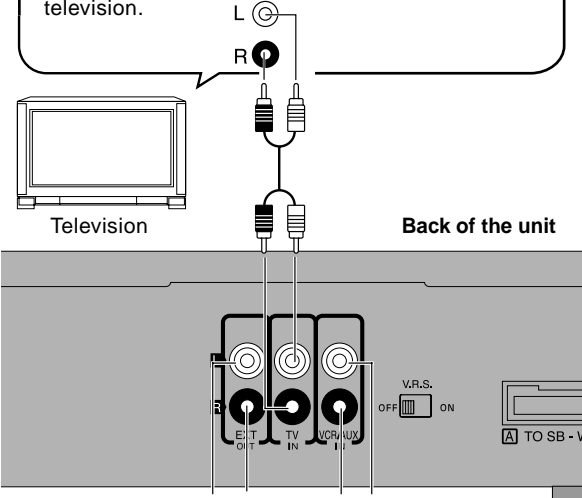
SELECTOR

SELECTOR

A You can enjoy music from from video recorder/ cassette recorder/ CD player etc. use the speaker of this unit.

1 **Press [SELECTOR] to choose** "**VCR/AUX**"**.**
Each time you press the button, settings will change in sequence below:
DVD/CD → FM → AM → TV
↑——— VCR /AUX ←———┘

2 **Start playing.**

B You can record the sound from outer radio or discs to cassette recorder or video player.

1 **Press [SELECTOR] to choose** "**VCR/AUX**"**.**
Each time you press the button, settings will change in sequence below:
DVD/CD → FM → AM → TV
↑——— VCR /AUX ←———┘

2 **Audio recording and play begin.**

Connection of the optional antenna

If the receiving effect of radio is bad, use outdoor aerial.

Note

When the unit is not in use, open the connection with outdoor aerial.
Never use outdoor aerial during a lightning storm.

AM outdoor aerial (use polythene sheathing)

Horizontally lay a section of wire with polythene sheathing through
window or other convenient holes.

5-12 m

Leave the loop aerial
connected

**FM outdoor aerial (use TV
aerial cable)**

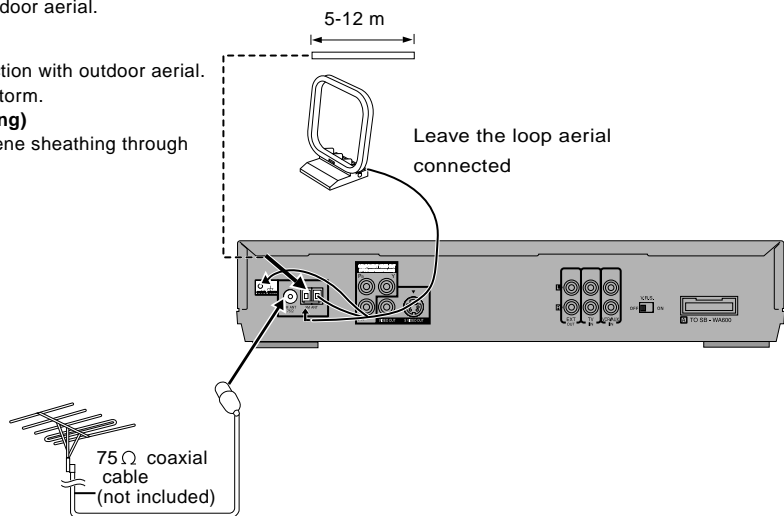- Remove AM (FM) indoor aerial.
- Aerial should be installed by
  qualified technician.

75 Ω coaxial
cable
(not included)

Glossary

Decoder
A decoder restores coded audio signals on DVDs to normal.

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 infor-
mation can be recorded on one disc using this method.

Dolby Pro Logic
A surround system where a 4-channel audio track is recorded as 2
channels and then is restored to 4 channels for play. The surround
channel is monaural and can reproduce up to 7 kHz.

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.

Frame still and field still
Frames are the still pictures that make moving pictures. About
thirty are shown each second. A frame still may appear blurred
but overall quality is high. Two fields appear alternately to make
up one frame. A field still is not blurred but 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.

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.

Content Play(Playback control, PBC)
If the VCD/SVCD is incorporated with content play, you can select
the desired scene and information through the content.

Reference *Other functions*

Language code list

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

Troubleshooting guide

Before requesting service, make the following checks. Perform simple check of the parts or fine adjustment, and maybe the problem will be solved and the unit can restore normal operation. If you are in doubt about some of the check points, or if the remedies indicated in the table do not solve the problem, consult the dealer for instruction.
Black round digits indicate the page for reference, e.g. ❾

Power

No power.	● Insert the AC power supply cord securely and 25PIN connection wire into the household AC outlet.　❾
The unit is automatically switched to the standby mode.	● The SLEEP timer functioned.　㉕

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 standby mode, disconnect the AC power supply cord and then reconnect it.
No operations can be performed with the remote control.	● Check that the batteries are installed correctly.　❾ ● The batteries are depleted: Replace them with new ones.　❾ ● Point the remote control at the remote control sensor and operate.
Play does not start (or stops immediately) when you press [▶] (PLAY) .	● Condensation has formed: Wait I to 2 hours for it to evaporate. ● The unit cannot play discs other than the ones listed in these operating instructions.　❹ ● The unit can only play the DVD-Vidieo if their region number is "3","5", "ALL", or multiple region number containing.　❶ ● The disc may be dirty and may require cleaning.　❹ ● Ensure that the disc is installed with the label of the side to be played facing upwards.　⑫
Cannot select alternative language.	● The disc containing only one language has no other language selection. ● If there is alternative language, try to select it via the disc menu.　⑬
No menu display.	● There is menu display only for the disc recorded with menu.
No subtitles.	● Only the disc with subtitles can display subtitles. ● Subtitles are cleared from the television. Display the subtitles.　⑮
Incorrect subtitle position	● Use the "Subtitle Position" in GUI display to change the subtitle position.　⑲
Soundtrack and/or subtitle language is not the one selected with the SETUP menus.	● The function depends on software availability.
Cannot change angle.	● This function depends on software availability. Even if a disc has a number of angles recorded; these angles may be recorded for specific scenes only.
Cannot access setup menu.	● Select "DVD/CD" for the signal source. ● Cancel all group, programmed and random play.　⑭
No mark function.	● When the playlist or the time of play are not displayed on the screen, the adding of mark cannot be done.
Random and programmed plays cannot be selected.	● Random and programmed plays cannot be seclected for some DVD-Video.
Folder with more than 8 directories in a digital CD can not be displayed.	● Folder with more than 8 directories will be displayed as the folder with 8 directories.
You have forgotten your password. Reset all settings to Factory .	● While stopped,and selecting "DVD/CD" as the signal source , Press [■] on the main unit and [≧10] on the remote control for 3 second until the "Initialized" words disappear from the TV screen.Turn the unit off and on again. All settings will return to the default values.

Sound

| No sound. Distorted sound	● Check the connections.　❻ ● Raise the volume. ● Turn off mute.　㉕ ● Turn off the unit, find out and correct the cause, and then turn on the unit. Causes as below: - Positive and negative connecting cables of speakers are short circuited (naked wires touching).　❻ - The speakers' rating impedance does not suit those of the unit. - Speakers are overloaded because of high volume or power. - The environment is hot, and of bad ventilation.
Buzz can be heard during play.	● There is AC power cord or fluorescent lamp near the Active Subwoofer. please put other electrical appliances and connecting wires far away from the Active Subwoofer.

Picture

Picture distorted.	● Some distortion is normal during SEARCH.
No picture.	● Check the connection. **8** ● Make sure the television is on. ● Ensure that the television's video input settings (e.g. VIDEO 1) is correct.
The picture shown on the televiion is not normal. (The sides of the picture are cut off, the picutue 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. **26** ● Use the television to change the aspect to the correct one. If your television cannot change the aspect when input is progressive, try changing "4:3 Aspect" with the on-screen menu icons. **19** ● Ensure that the unit is connected directly to the television, and is not connected through a video cassette recorder. ● Change the size through non-grade zoom function. **14** ● Connect to the component video(480P)input terminal of the TV which is compatible with the anti-copy protection system of the player.If the TV is not compatible with this player, the interlace videos cannot be watched. **8**
Picture quality is poor.	● Check the settings in the On-Screen Menu Icons' Picture Menu. **20**
Pictures on television disappear or there are stripes in the pictures	● The location and orientation of aerial is wrong. If indoor aerial is in use, please use an outdoor aerial. **29** If the television's aerial wire is too close to the unit, increase the space.
Incorrect menu display	● Change the stepless zooming proportion to "×1.00". **14**
Distorted pictures in progressive scanning	● Press [PROGRESSIVE OUT] to turn out "PROG." Indicator. This phenomenon results from the DVD-Video edit method and the materials adopted, and can be corrected by using alternate scanning. **12**

Tuning in radio

Noises can be heard. Stereo indicator flickers or is off. Sound is distorted.	● Adjust the location of FM or AM aerial. ● Use an outdoor aerial. **29**
Beat can be heard.	● Turn off television or put it far away from the unit.
Low buzz can be heard during AM program.	● Place the aerial far away from other cables and connecting wires.
It is impossible to tune an AM frequency.(only for Asia)	● Change frequency step. Press [SELECTOR] on the main unit to select "FM", and then press and hold the key, and the current minimum frequency will be flashed on the display after "AM" mode is displayed for several seconds. Consecutively press the key to obtain the corresponding step. **21**

Unit displays

"NO PLAY"	● You insert a blank DVD-RAM. ● You insert a disc the unit cannot play; insert one it can. **4**
"NO DISC"	● You haven't inserted a disc; Insert one. ● You haven't inserted the disc correctly: Insert it correctly. **12**
"F61"	● Check and correct the connection of speakers' connecting wires. **6** If this cannot solve the problem, it indicates that there is problem in the power supply; consult the dealer for instruction.
"DVD U11"	● Disc is dirty. Wipe it with soft cloth. **4**
"ERROR"	● Wrong connection. Repeat the connection again as per the operating instruction.
"DVD H□□" □□stands for a number.	● Trouble may have occurred. The number following "H" depends on the status of the unit. **Reset procedure:** Press[⏻ / I]to switch the unit to the standby mode and then back to ON. Alternatively, press[⏻ / I]to switch the unit to the standby mode, disconnect the AC power supply cord, and then reconnect it. ● If the service numbers fail to clear, note the service number and consult the dealer for instruction.

Television displays

No display.	● Go to Display in the SETUP menus, and select "On" for "On-Screen Messages". **26**
No on-screen display or only partially displayed.	● When the icon at right edge is highlighted, press [▲ , ▼] to move it downward. **18**
The disc's menu is displayed in a different language.	● Go to Disc in the SETUP menus, and select the preferred language for "Menus". **26**

Maintenance

Clean this unit with a soft, dry cloth.
● Never use alcohol, paint thinner, or benzine to clean the unit.
● Before using the chemical soaking cloth, please carefully read the attached instruction.

Specifications

■ Amplifier

RMS(TTL Power Output: Root Mean Square Value)   500w

  At 1kHz and total harmonic of 10%

Front	47w/Channel (6 Ω)
Center	150w (6 Ω)
Surround	53w/Channel (6 Ω)

  At 100Hz and total harmonic of 10%

Active subwoofers	150w (6 Ω)

Input Sensitivity/ Input Impedance

AUX	350mV, 10K Ω
MIC	3.15mV, 10k Ω

■ FM Tuner Section

Frequency Range	87.50-108.00MHz(50kHz in step)
Antenna Terminal	75 Ω (non balance)

■ AM Tuner Section

Frequency Range	522-1629kHz(9kHz in step)
(only for Asia)	520-1630kHz(10kHz in step)

■ Disc

Play disc[8cm(3") or 12cm(5")]:

  (1) DVD-RAM (Compatible with DVD-VR)

  (2) DVD-Audio

  (3) DVD-Video DVD-R(Compatible with DVD-Video)

  (4) CD-Audio(CD-DA),VCD,SVCD(acc to IEC62107 standard)

     CD-R/CD-RW(CD-DA、 VCD formatted discs)

  (5) MP3/WMA

   ● Maximum program numbers and group numbers

     identified:

     999 programs and 99 groups

   ● Compatible with compression ratio

     MP3: 32kbps - 320kbps

     WMA: 48kbps - 192kbps

  (6) JPEG

   ● Exif Ver2.1 JPEG baseline file;

   ● Maximum image numbers and group numbers:

     3000 images and 300 groups

   ● Image Definition:

     320 x 240 pixel - 6144 x 4096 pixel

     (sampling frequency 4:2:2 or 4:2:0)

  (7) HighMAT Class 2 (Audio and Video)

Audio Frequency

Number of Channels	5.1(Left front,Right front,Left Surround, Right Surround,Central, Subwoofer)

Video Frequency

Signal System	PAL,PAL60/NTSC
Output terminal	RCA(Compound Image)
	S Terminal(Y,C)
	RCA(Y: green、 P$_B$: blue、 P$_R$:red)

Pick up

Source of light beam	Semiconductor Laser
Wavelength	
CD/VCD	790nm
DVD	658nm

■ Speaker

Front speaker SB-FS860   HT860

Type	1-way、2-speaker system
Speaker	Full frequency band 8cm cone-shaped
Resistance	6 Ω
Input Power	160W (music)
Output Sound Pressure Level	81dB/W (1m)
Frequency Range	80Hz − 22kHz (-16dB)
Dimension (W x H x D)	100 x 1098 x 132 mm(included baseplate)
Weight	5.56kg

Center speaker SB-PC600   HT600   HT860

Type	1-way、2-speaker system
Speaker	Full frequency band 8cm cone-shaped
Resistance	6 Ω
Input Power	160W (music)
Output Sound Pressure Level	82dB/W (1m)
Frequency Range	100Hz − 22kHz (-16dB)
Dimension (W x H x D)	285 x 100 x 104 mm
Weight	1.82kg

Surround speaker SB-FS600   HT860

Front、 Surround speaker SB-FS600   HT600

Type	1-way、1-speaker system
Speaker	Full frequency band 8cm cone-shaped
Resistance	6 Ω
Input Power	60W (music)
Output Sound Pressure Level	80dB/W (1m)
Frequency Range	110Hz − 22kHz (-16dB)
Dimension (W x H x D)	100 x 150 x 104 mm
Weight	0.92kg

Active subwoofer speaker SB-WA600   HT600   HT860

Type	1-way、1-speaker system
Speaker	Full frequency band 17cm cone-shaped
Resistance	6 Ω
Input Power	220W (music)
Output Sound Pressure Level	80dB/W (1m)
Frequency Range	38Hz − 200Hz (-16dB)
Dimension (W x H x D)	170 x 414 x 406 mm
Weight	12.3kg

■ General

Power Source

For Asia	AC 110V、127V、220-230V、240V, 50Hz/60Hz
For Russia	AC 230-240V/50Hz
Power Consumption	178W
Power Consumption in Stand-by Mode	approx 0.9W
Dimension of main unit (W x H x D)	430 x 60 x 248mm
Weight of main unit	2.52kg

Note

1.The Specifications are subject to change without prior notice.
  The Weight and Dimension are approximate values.

2. Distortion of full harmonic wave is measured by digital harmonic
  analyzer