# aiwa

AV SURROUND RECEIVER

# AV-NW50

| | |
|---|---|
| **OPERATING INSTRUCTIONS** | **En** (English) |
| **MANUAL DE INSTRUCCIONES** | **E** (Español) |
| **MODE D'EMPLOI** | **F** (Français) |
| **BEDIENUNGSANLEITUNG** | **D** (Deutsch) |
| **ISTRUZIONI PER L'USO** | **I** (Italiano) |
| **GEBRUIKSAANWIJZING** | **NL** (Nederlands) |
| **NÁVOD K OBSLUZE** | **Cz** (Česky) |
| **HASZNÁLATI UTASÍTÁS** | **M** (Magyar) |
| **INSTRUKCJA OBSŁUGI** | **Po** (Polski) |

**R·D·S**

**DIGITAL dts SURROUND**

EZ

# PRECAUTIONS

Read the Operating Instructions carefully and completely before operating the unit. Be sure to keep the Operating Instructions for future reference. All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions below.

### Installation
1  **Water and moisture** — Do not use this unit near water, such as near a bath, sink, swimming pool, or the like.
2  **Heat** — Do not use this unit near sources of heat, including heating vents, stoves, or other appliances that generate heat. It also should not be placed in temperatures less than 5°C or greater than 35°C.
3  **Mounting surface** — Place the unit on a flat, even surface.
4  **Ventilation** — The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm clearance from the rear and the top of the unit, and 5 cm from each side.
    - Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
    - Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.
5  **Objects and liquid entry** — Take care that objects or liquids do not get inside the unit through the ventilation openings.
6  **Carts and stands** — When placed or mounted on a stand or cart, the unit should be moved with care.
    Quick stops, excessive force, and uneven surfaces may cause the unit or cart to overturn or fall.
7  **Wall or ceiling mounting** — The unit should not be mounted on a wall or ceiling, unless specified in the Operating Instructions.

### Electric Power
1  **Power sources** — Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.
2  **AC power cord**
    - When disconnecting the AC power cord, pull it out by the AC power plug. Do not pull the cord itself.
    - Never handle the AC power plug with wet hands, as this could result in fire or shock.
    - Power cords should be firmly secured to avoid being severely bent, pinched, or walked upon. Pay particular attention to the cord from the unit to the power socket.
    - Avoid overloading AC power sockets and extension cords beyond their capacity, as this could result in fire or shock.
3  **When not in use** — Unplug the AC power plug from the AC power socket if the unit will not be used for several months or more. When the cord is plugged in, a small amount of current continues to flow to the unit, even when the power is turned off.

### Maintenance
Clean the unit only as recommended in the Operating Instructions.

**Damage Requiring Service**

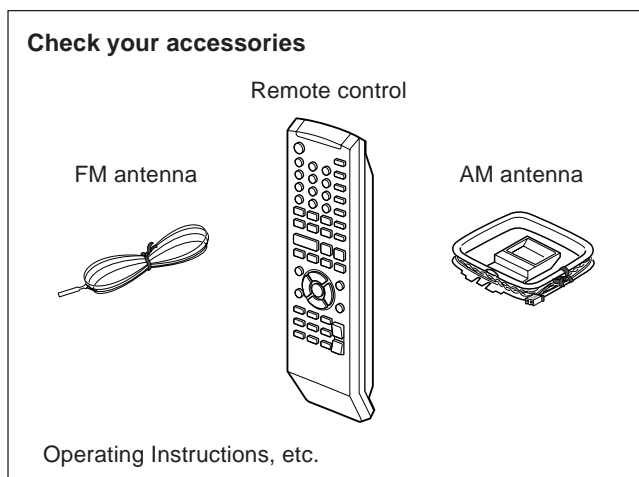Have the unit serviced by a qualified service technician if:
- The AC power cord or plug has been damaged
- Foreign objects or liquid have got inside the unit
- The unit has been exposed to rain or water
- The unit does not seem to operate normally
- The unit exhibits a marked change in performance
- The unit has been dropped, or the cabinet has been damaged
DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.

# TABLE OF CONTENTS

**En**

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**Check your accessories**

Remote control

FM antenna          AM antenna

Operating Instructions, etc.

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# CONNECTIONS

**Before connecting the AC cord**
The rated voltage of your unit shown on the rear panel is 230 V AC. Check that the rated voltage matches your local voltage.

**IMPORTANT**
Plug in the AC power cord to the AC power socket after all other connections are made.

## CONNECTING EQUIPMENT

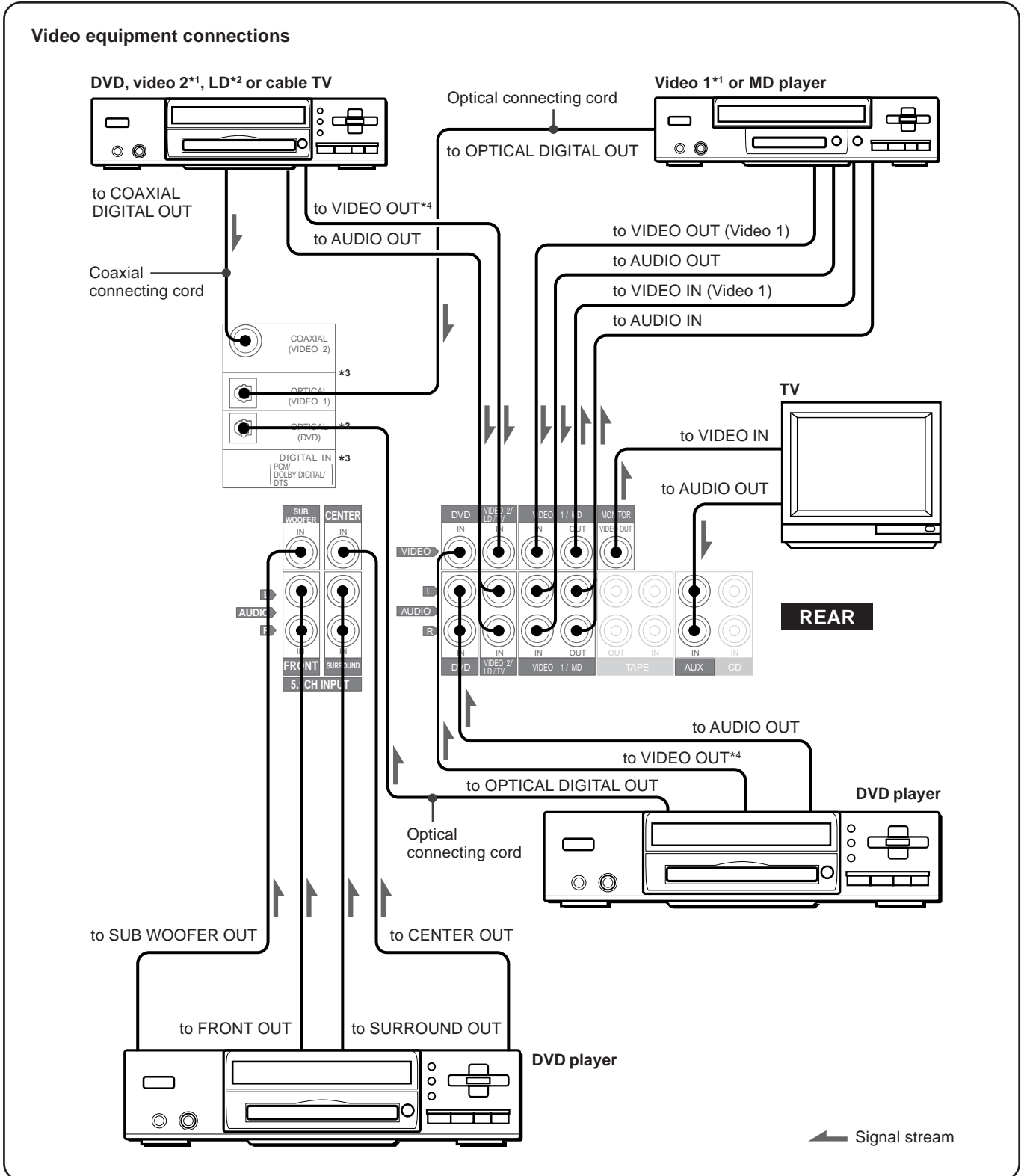Jacks and plugs of the connecting cord are colour-coded as follows:
Red jacks and plugs: For the rigtht channel of audio signals
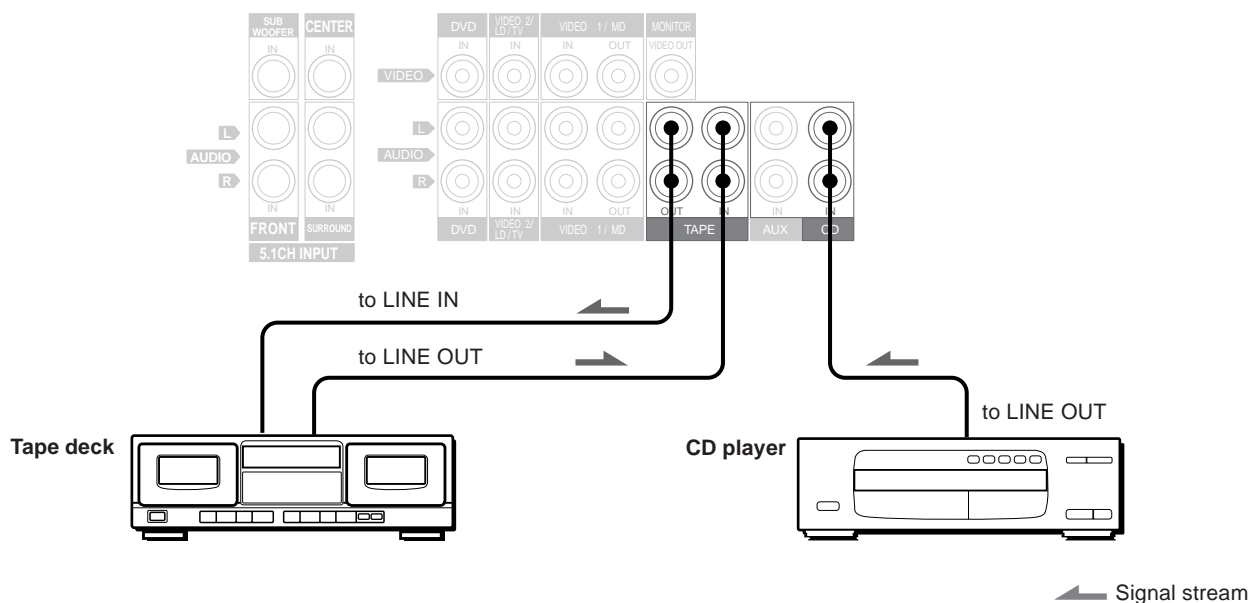White jacks and plugs: For the left channel of audio signals
Yellow jacks and plugs: For video signals

NOTE

Insert the plugs fully into the jacks. Loose connections may produce a humming sound or other noise interference.

### Video equipment connections

**DVD, video 2*1, LD*2 or cable TV**

Optical connecting cord

**Video 1*1 or MD player**

to OPTICAL DIGITAL OUT

to COAXIAL DIGITAL OUT

to VIDEO OUT*4

to AUDIO OUT

to VIDEO OUT (Video 1)

to AUDIO OUT

to VIDEO IN (Video 1)

to AUDIO IN

Coaxial connecting cord

COAXIAL (VIDEO 2)

*3

OPTICAL (VIDEO 1)

*3

OPTICAL (DVD)

*3

DIGITAL IN *3
PCM/ DOLBY DIGITAL/ DTS

**TV**

to VIDEO IN

to AUDIO OUT

SUB WOOFER IN

CENTER IN

VIDEO

DVD IN

VIDEO 2/ LD/TV IN

VIDEO 1/MD IN

MONITOR VIDEO OUT

AUDIO

L

R

FRONT

SURROUND

5.1 CH INPUT

DVD IN

VIDEO 2/ LD/TV IN

VIDEO 1/MD OUT

TAPE OUT

AUX IN

CD IN

**REAR**

to AUDIO OUT

to VIDEO OUT*4

to OPTICAL DIGITAL OUT

**DVD player**

Optical connecting cord

to SUB WOOFER OUT

to CENTER OUT

to FRONT OUT

to SURROUND OUT

**DVD player**

◄— Signal stream

**Audio equipment connections**



to LINE IN

to LINE OUT

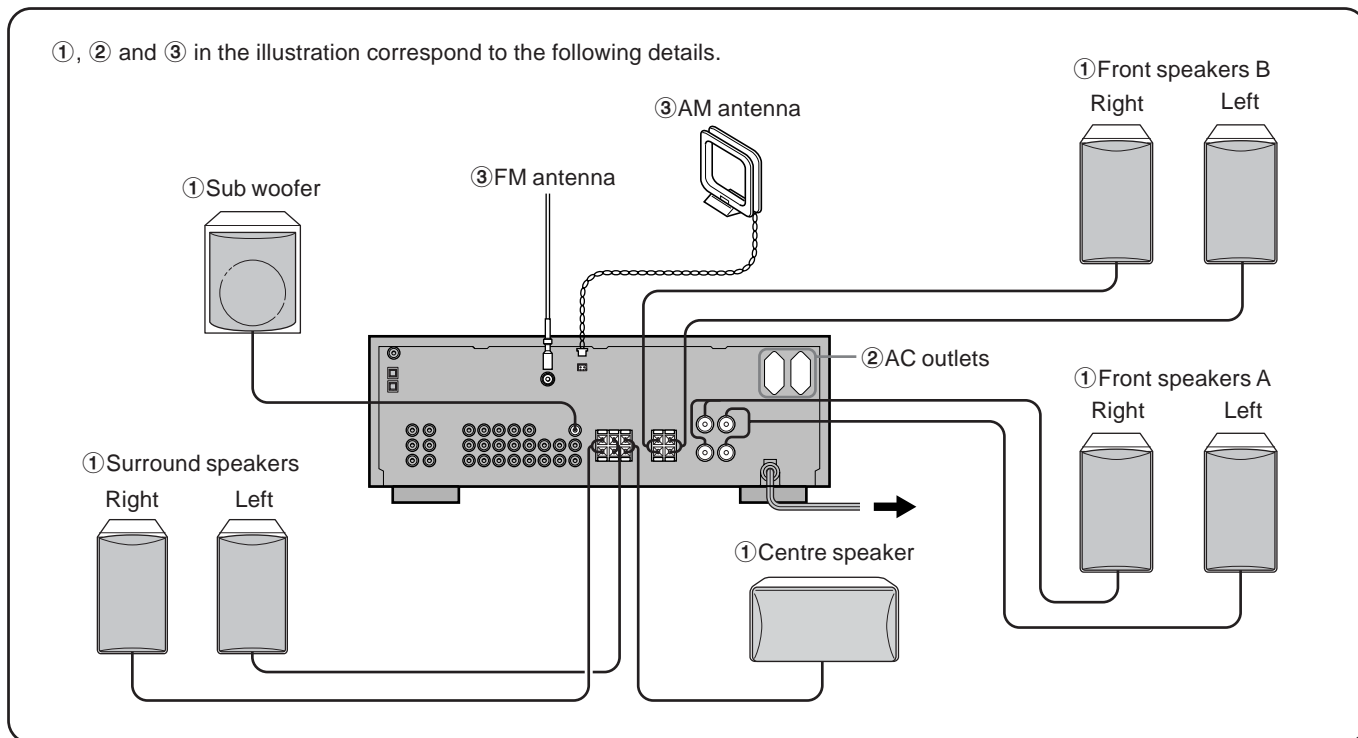**Tape deck**

**CD player**

to LINE OUT

Signal stream

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*1 When connecting a monaural video recorder, use a stereo-mono connecting cord (not supplied).

*2 When connecting an LD player equipped with the AC-3 RF OUT terminal, use an RF demodulator unit. Also connect the analogue AUDIO OUT terminals of the LD player to the receiver to play all the sources. For further information, refer to the instructions of the LD player.

*3 Input sound through the 5.1CH INPUT or DIGITAL IN terminals (COAXIAL (VIDEO 2), OPTICAL (VIDEO 1) and OPTICAL (DVD)) cannot be recorded. When recording the sound from the DVD, CD, MD or LD player, connect the analogue AUDIO OUT terminals of the player to the corresponding AUDIO IN terminals of the receiver.

*4 With this connection, the picture noise may appear when playing copy protected DVDs. In this case, it is recommended to connect the VIDEO OUT terminal of the DVD player directly to a TV set, not through the receiver.

## DVD PLAYERS CONNECTIONS

**To connect a DVD player without a decoder,** connect the player to the DIGITAL IN terminals of the unit.

**To connect a DVD player with a decoder and 5.1 ch output terminals,** connect the player to the 5.1CH INPUT terminals of the unit.

• The 5.1CH INPUT terminals can also be used when connecting a digital TV with multi-audio output terminals.
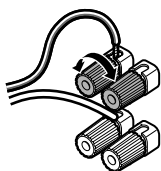
① , ② and ③ in the illustration correspond to the following details.

③AM antenna

①Front speakers B
Right    Left

③FM antenna

①Sub woofer

②AC outlets

①Front speakers A
Right    Left

①Surround speakers
Right    Left

①Centre speaker

## CONNECTING SPEAKERS ①

**Speaker terminals**
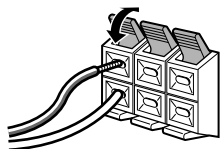There are three types of speaker output terminals.

**Screw type (FRONT SPEAKERS A)**
The speaker terminal is opened by turning it counterclockwise.
After inserting the stripped wire into the terminal slot, tighten
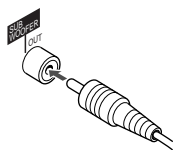down by turning it clockwise to secure the wire.

**Flap type (FRONT SPEAKERS B, SURROUND SPEAKERS
and CENTER SPEAKER)**
The speaker terminal is opened by lifting the terminal flap. After
inserting the stripped wire into the terminal slot, close the flap to
lock the wire in place.

**Jack type (SUB WOOFER)**
Simply plug in the sub woofer cord here.

Connect front speakers (system A and/or B), a centre speaker,
surround speakers and a sub woofer to the corresponding
speaker terminals on the unit:
- the front speaker cords to the FRONT SPEAKERS terminals
  **When connecting only one set of front speakers, connect
  them to the FRONT SPEAKERS A terminals.**
  The FRONT SPEAKERS B terminals (speaker system B) are
  for use of 2 channel stereo system only.
- the centre speaker cord to the CENTER SPEAKER terminals
- the surround speaker cords to the SURROUND SPEAKERS
  terminals
- the sub woofer (with a built-in amplifier) cord to the SUB
  WOOFER jack, for more powerful bass sounds
- **When not connecting the sub woofer,** be sure to select
  "S-W OFF " (sub woofer off) mode (see the next page).
- **When not connecting the centre speaker and/or surround
  speakers, and regarding to the size of speakers (including
  front speakers), speaker settings must be done.** Before using
  the unit, be sure to make speaker settings in accordance with
  your speaker configuration (see page 16).

**Speaker impedance**
For all speakers, use speakers of 8 ohms or more.

**Connecting ＋ to ＋, ― to ― terminals**
To get the proper sound effect, the speaker terminals on the unit
and the speaker should be connected with proper polarity; the
＋ terminal on the unit should be connected to the ＋ terminal on
the speaker (and ― to ―).

**NOTE**

• Be sure to connect the speaker cords correctly. Improper
  connections can cause short circuits in the SPEAKER(S)
  terminals.
• Do not leave objects generating magnetism near the speakers.

## POSITIONING THE SPEAKERS

Position the speakers to make the most of Dolby, DTS or DSP surround effect.

**Front speaker (L/R)**
**Centre speaker (C)**
Position in the centre of the two front speakers. In addition, position on or below the TV set, if connecting a TV set to the unit.
**Surround speakers (LS/RS)**
Place the surround speakers directly to the side of or slightly behind the listening area. Align them horizontally, about 1 metre above ear height.
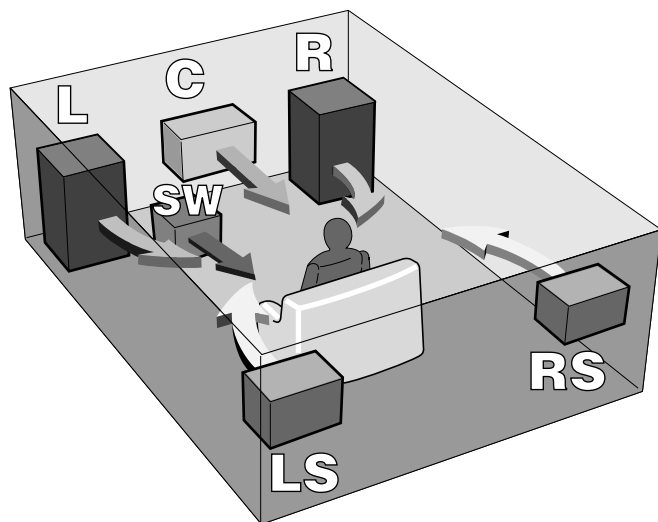**Sub woofer (SW)**
Place the sub woofer in any place near the two front speakers.

Before using the unit, be sure to make speaker settings in accordance with your speaker configuration (see page 16).

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**When not connecting the sub woofer**
Select the "S-W OFF " mode when the speaker system B is turned off.
1 Press and hold FRONT SPEAKERS A until "FR LARGE " is displayed.
2 Within 6 seconds, turn MULTI JOG so that "S-W ON " (initial setting) is displayed.
3 Press ENTER.
4 Within 6 seconds, turn MULTI JOG so that "S-W OFF " is displayed, then press ENTER.
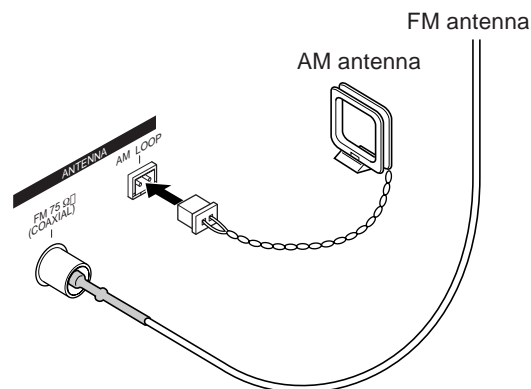
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## USING AC OUTLETS ON THE UNIT ②

The unit is equipped with AC outlets. You can use them once the unit is connected to an AC power socket on a wall.
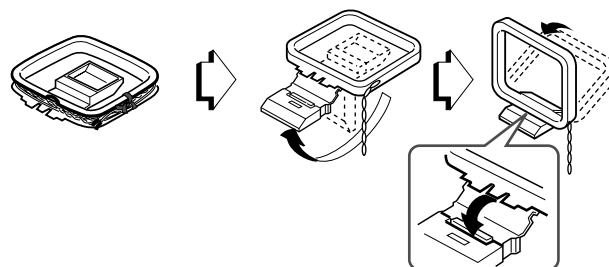Do not connect equipment beyond their capacity (120 W, 1 A MAX. and TOTAL).

## CONNECTING THE SUPPLIED ANTENNAS ③

Connect the FM antenna to the FM 75Ω terminal and the AM antenna to the AM LOOP jack.



FM antenna
AM antenna

**To stand the AM loop antenna on a surface**
Fix the claw to the slot as shown in the illustration.



**To position the antennas**
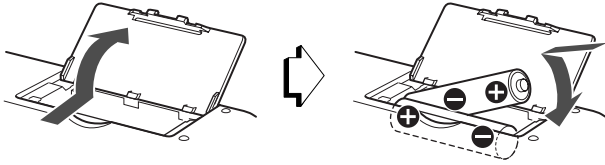Keep antennas away from metallic objects, electrical equipment (including the unit itself) and cords.
**FM antenna:** Extend fully and position for the best reception. If reception is poor, connect an optional outdoor antenna to the FM 75Ω terminal.
**AM antenna:** Rotate to find best reception.

# ABOUT THE REMOTE CONTROL

## Inserting batteries

Open the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.



- Replace the batteries with new ones when the operational distance between the remote control and the main unit becomes shorter.
- Remove the batteries if the unit is not going to be used for an extended period of time.
- The remote control may not operate if it is used under intense sunlight or if its line of sight is obstructed.

> **Important**
> **ENTER on the remote control substitutes for ENTER on the main unit when the function is FM or AM.** In other functions, this button is mainly for operating the DVD player.

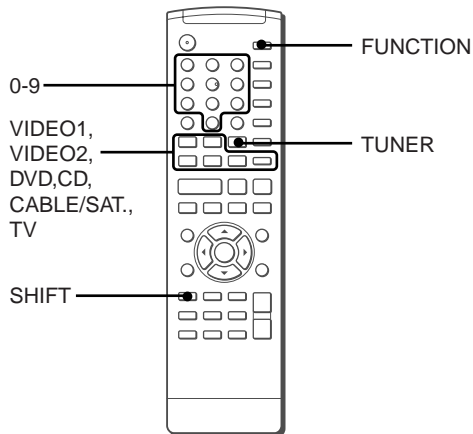**To use the function printed above the button in orange**
Hold down SHIFT and press the button.

**To select the function with the remote control**
Press FUNCTION repeatedly. The function changes cyclically.

# OPERATING OTHER EQUIPMENT

This remote control allows you to operate other equipment besides this receiver by inputting the brand code.



## Setting the brand code

Before operation, check the brand code of your equipment. Brand code is shown at the end of the operating instructions.

1 **Turn on the equipment to be operated with the remote control.**

2 **Hold down the corresponding source button (VIDEO 1, VIDEO 2, TV, DVD, CD or CABLE/SAT.) and press the numbered buttons 0-9 to input the three-digit brand code.**

3 **Release the corresponding source button.**

## Operating other equipment

Press the corresponding source button you want to operate. The remote control goes into the corresponding source operation mode.
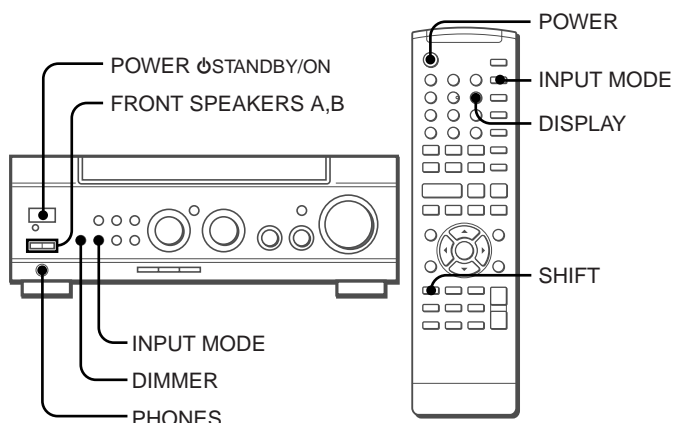**Some brands have plural brand codes.**
After setting a brand code, check whether the remote control functions correctly or not by pressing basic operation buttons such as POWER, ► and ■. If not, try to set other codes.
**To operate this receiver after operating other equipment,** press TUNER to restore the normal mode.

NOTE
- The remote control may not correspond to all the models of the brand shown at the end of the operating instructions.
- Some buttons on the remote control may not work exactly.
- When the batteries are removed, all the settings stored in memory may be lost.

# BEFORE OPERATION

POWER ⏻STANDBY/ON

FRONT SPEAKERS A,B

POWER

INPUT MODE

DISPLAY

SHIFT

INPUT MODE

DIMMER
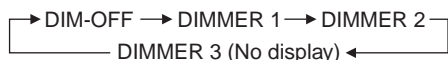
PHONES

## To turn the unit on

### Press POWER ⏻STANDBY/ON (POWER).

The STANDBY/ON indicator lights in green.
Operation is possible after four seconds. The volume level and function name are displayed one after the other for the first eight seconds.

## To change the brightness level of the display

### Press DIMMER (hold down SHIFT and press DISPLAY) repeatedly.

The dimmer mode changes as follows.

DIM-OFF → DIMMER 1 → DIMMER 2 → DIMMER 3 (No display) →

DIM-OFF: The normal display
DIMMER 1: The illumination of the display is dimmer than usual.
DIMMER 2: The illumination of the display is dimmer.
DIMMER 3 (no display): Everything on the display is cleared.

#### NOTE

While in the mode other than DIM-OFF, if you operate the receiver, the display illuminates at the DIM-OFF level, and after 6 seconds, the display brightness returns to the level previously set.
Note that "DIMMER" is displayed for one second before everything is cleared when the previously set level is "no display".

### Using the headphones

Connect headphones with a standard stereo plug (ø6.3 mm) to the PHONES jack. Be sure to turn off the speakers by pressing FRONT SPEAKERS A and/or B. Otherwise sound is output from the speakers.

**To turn the unit off**, press POWER ⏻STANDBY/ON (POWER). The STANDBY/ON indicator turns to red.

## Turning on the front speaker system A and/or B

**To turn on the front speaker system A:** press FRONT SPEAKERS A so that "SP⊲ A " is displayed. To turn it off, press it again.
**To turn on the front speaker system B:** press FRONT SPEAKERS B so that "SP⊲ B " is displayed. To turn it off, press it again.
Both systems can be turned on at the same time.

#### NOTE

• The front speaker system B is for use of 2 channel stereo system only. When turning on the front speaker system B:
  - surround mode or DSP mode is automatically canceled and cannot be turned on.
  - "S-W OFF (sub woofer off) " mode is selected automatically.
• The front speaker system A & B are connected in series.
  So the sound cannot be heard if the both speaker systems are turned on when only one speaker system is connected.

## SOURCE DIRECT FUNCTION

You can cancel all the sound adjustments (except the volume), with their settings kept in memory, to listen to the original source sound.
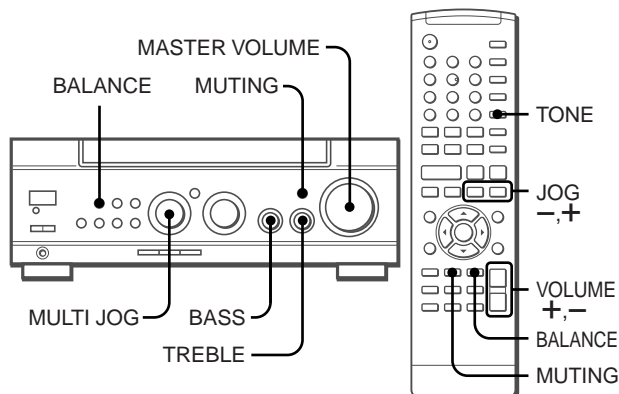
### Press INPUT MODE once so that "S-DIRECT " is displayed.

To restore the sound adjustments, press it repeatedly to display "ANALOG " or "DIGITAL ".

• This function is not activated with the TUNER (FM or AM) and 5.1ch IN functions or with the "FR SMALL (front speaker small)" mode.
• When the source direct function is activated:
  - SURROUND, DSP, BASS and TREBLE do not function.
  - "S-W OFF (sub woofer off) " mode is selected automatically.

See the next page for the sound adjustments.

**En**

# CUSTOM AUDIO ADJUSTMENT



## VOLUME CONTROL

Turn MASTER VOLUME (press VOLUME +,−).
Adjust from 0 (minimum) to 49 and MAX (maximum).
Volume level setting is retained during power-off standby. If the unit is turned off with the volume set to 21 or higher, it is automatically turned down to 20 the next time the unit is turned on.

### Left and right balance of the front and surround speakers (except in 5.1ch IN function)

1 Press BALANCE repeatedly.
"L/R 0dB " and "LS/RS 0dB *" appear alternately.
"L/R 0dB " means that the left and right front speakers level is the same.
"LS/RS 0dB *" means that the left and right surround speakers level is the same.
Select one of them to adjust it.
* This is not displayed in stereo mode (SURROUND off or DSP off) or when the surround speakers are set to "NONE ".

2 Turn MULTI JOG (press JOG +,− repeatedly).
Example:
"L>R 5dB " means that the left front speaker level is 5 dB higher than that of the right front speaker.
"LS<RS 10dB " means that the right surround speaker level is 10 dB higher than that of the left surround speaker.

### NOTE

- The adjustable level ranges from 0 to 10 dB.
- The surround speaker balance can be adjusted only when SURROUND or DSP is set to on and the surround speakers are not set to "NONE ".

### Muting the sound temporarily

Press MUTING so that "MUTE ON  " appears on the display. The sound is muted.
To return to the previous volume level, press MUTING again. "MUTE OFF  " is displayed.
To reset the volume and balance to the default value, press and hold BALANCE until "LVL RESET " is displayed.
All the speaker volume as well as the left and right balance of the front and surround speakers are reset to the default value (0 dB).

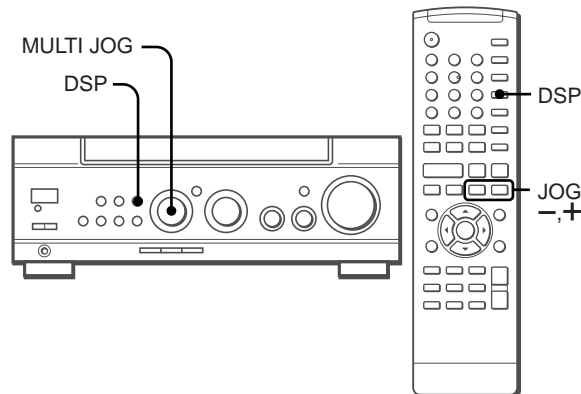## BASS AND TREBLE (except in 5.1ch IN function)

Turn BASS or TREBLE.
The adjustable level for the bass sound and the treble sound ranges from −10 to +10 dB at 2 dB steps.

### Adjusting bass and treble with the remote control

1 Press TONE repeatedly to select BASS or TREBLE.
2 Press JOG + or − to adjust the bass or treble level.

# DSP SURROUND



The DSP (Digital Signal Processor) surround circuits can recreate the effect of sounds reflected from walls or ceilings, to obtain the sound presence of real environments. The unit provides 10 DSP preset modes.

**1 Press DSP.**

**2 Within 6 seconds, turn MULTI JOG to select the desired DSP mode.**
The "DSP" and "S" (surround speakers) indicators light up.

DISCO 1 ↔ DISCO 2 ↔ HALL 1 ↔ HALL 2 ↔ LIVE 1
MOVIE 2 ↔ MOVIE 1 ↔ CHURCH 2 ↔ CHURCH 1 ↔ LIVE 2

### When the music source is monaural

The DSP system may not work effectively depending on the selected DSP mode.

### To cancel the selected mode

Press DSP to display the DSP mode name, and press the button again within 6 seconds. "DSP OFF " appears on the display.

### To select with the remote control

1 Press DSP.
2 Within 6 seconds, press JOG + or − repeatedly until the desired DSP mode is displayed.
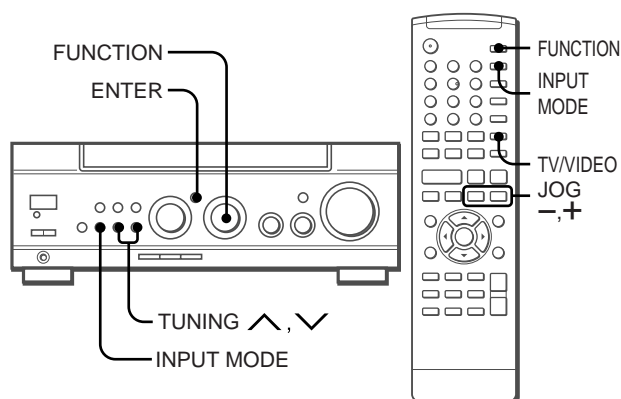
### NOTE

- DSP cannot be turned on when the surround speakers are set to "NONE ".
- DSP is automatically cancelled when SURROUND is turned on, and vice versa.
- DSP is automatically cancelled and cannot be turned on:
  − When the 5.1ch IN function is selected.
  − When the source direct function is activated.
  − When the front speaker system B is turned on.
  − When the input signal is 96 kHz.
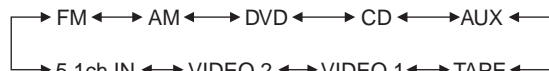
## SOUND ADJUSTMENT DURING RECORDING

The output volume and tone of the speakers or headphones may be freely varied without affecting the level of the recording.

10 *ENGLISH*

# SELECTION OF AUDIO/VIDEO SOURCE



FUNCTION
ENTER
FUNCTION
INPUT MODE
TV/VIDEO
JOG
−,+
TUNING ⋀ , ⋁
INPUT MODE

**1 Turn FUNCTION to select the program source.**
The function changes in the following order.

FM ⟷ AM ⟷ DVD ⟷ CD ⟷ AUX
5.1ch IN ⟷ VIDEO 2 ⟷ VIDEO 1 ⟷ TAPE

The actual source selected (except FM and AM) depends on the equipment connected to the input terminals on the rear panel of the unit.
For example, if an MD player is connected to the VIDEO 1/MD terminals, select VIDEO 1 to listen to the MD playback sound.

**To select with the remote control**
Press FUNCTION repeatedly.

**2 Start the selected program source.**

**3 Adjust the sound.**
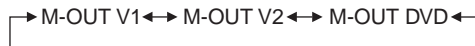
## SELECTION OF VIDEO SOURCE

While selecting a program source which does not contain video input (such as a CD player), you can select a video source separately to be viewed on the TV.

**1 Press FUNCTION repeatedly to select FM, AM, CD, AUX, TAPE or 5.1ch IN.**

**2 Press TV/VIDEO.**

**3 Press JOG +, − repeatedly.**
The video source to be output through the MONITOR VIDEO OUT jack changes in the following order.

M-OUT V1 ⟷ M-OUT V2 ⟷ M-OUT DVD

M-OUT V1 : Video image of the equipment connected to the VIDEO 1/MD terminals can be viewed on the TV.
M-OUT V2 : Video image of the equipment connected to the VIDEO 2/LD/TV terminals can be viewed on the TV.
M-OUT DVD : Video image of the equipment connected to the DVD terminals can be viewed on the TV.

## TO CHANGE A DISPLAYED NAME FOR THE VIDEO 1 AND VIDEO 2 FUNCTION

When the VIDEO 1 function is selected, VIDEO 1 is displayed initially. It can be changed to MD.
While pressing ENTER, press INPUT MODE.
The displayed name for the VIDEO 2 function can be changed to VIDEO 2, LD or TV. Select VIDEO 2 function.
While pressing ENTER, press INPUT MODE.

## TO SELECT "ANALOG" OR "DIGITAL" MODE OF THE DVD, VIDEO 1 OR VIDEO 2 FUNCTION

Select DVD, VIDEO 1 or VIDEO 2 function and press INPUT MODE repeatedly so that the desired mode "ANALOG " or "DIGITAL " is displayed.
**In DIGITAL mode:** Equipment connected to the DIGITAL IN OPTICAL (DVD) terminal is selected as a source for the DVD function, equipment connected to the DIGITAL IN OPTICAL (VIDEO 1) terminal for the VIDEO 1 function, and equipment connected to the DIGITAL IN COAXIAL (VIDEO 2) terminal for the VIDEO 2 function.
**In ANALOG mode:** Equipment connected to the DVD terminals is selected as a source for the DVD function, equipment connected to the VIDEO 1/MD terminals for the VIDEO 1 function, and equipment connected to the VIDEO 2/LD/TV terminals for the VIDEO 2 function.

## WHEN THE "OVER LEVEL" INDICATOR LIGHTS UP

When input analogue signals from the connected equipment are too high to accept, the OVER LEVEL indicator lights up. In this case, adjust the input level so that the indicator disappears.

**To adjust the sound level of the connected source**
When the analogue sound level of the connected source is higher or lower than that of the FM and AM functions, adjust it as follows.
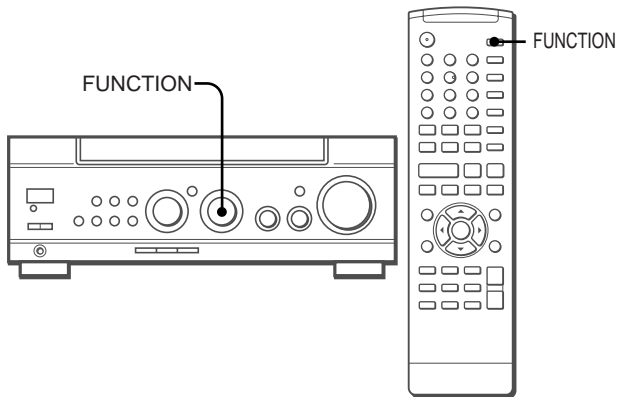
**1 Select the function to be adjusted.**
Turn FUNCTION and play the source.

**2 Press TUNING ⋁ or ⋀ repeatedly.**
The level changes as follows.

−6 dB ⟷ 0 dB ⟷ +6 dB
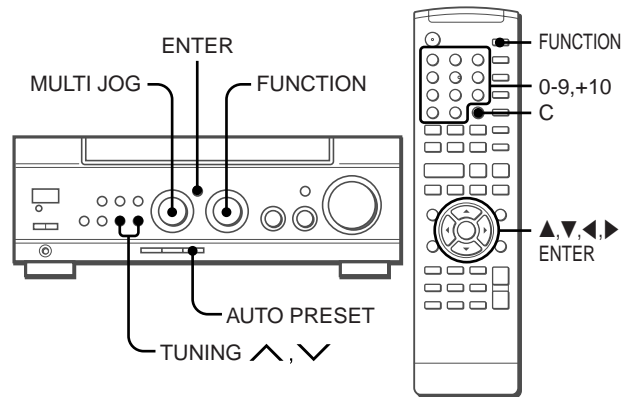
# RECORDING AN AUDIO SOURCE



1 **Select the program source to be recorded.**
Turn FUNCTION (or press FUNCTION repeatedly).

2 **Set the tape deck or MD recorder to recording mode.**

3 **Start the selected program source.**

NOTE

• Any sound control system has no effect on recording (see page 10).
• Input sound through the DIGITAL IN terminals cannot be recorded. When recording the sound from the DVD, CD, MD or LD player, connect the analogue AUDIO OUT terminals of the player to the corresponding AUDIO IN terminals of the receiver. The sound will be recorded in 2 ch stereo.
• Input sound from the tape deck connected to the TAPE IN terminals cannot be recorded.

# MANUAL TUNING



1 **Turn FUNCTION (or press FUNCTION repeatedly) to select the desired band; FM or AM.**

2 **Press TUNING ∧ or ∨ to tune in a station.**
Alternatively, press ◀ or ▶ on the remote control.
"TUNE " is displayed when a station is tuned in.
"((◎))" is displayed for FM stereo reception.

**To search for a station automatically (Auto search)**
Hold down TUNING ∧ or ∨ (or ◀ or ▶).
The unit searches for a station and stops at reception.
To stop the search manually, press TUNING ∧ or ∨ (or ◀ or ▶).
• Auto search may not stop at stations with weak signals.

12 **ENGLISH**

# PRESET TUNING

You can preset up to 32 stations and tune them in directly.

## MANUAL PRESETTING

**1  Tune in the desired station.**

**2  Press ENTER to store the station.**
The preset number, beginning from "1" appears on the display.

**3  Repeat steps 1 and 2 to store other stations.**
The next station will not be stored if a total of 32 preset stations have already been stored. ("FULL" is displayed.)

## AUTOMATIC PRESETTING

Scans the receivable frequency range and stores tuned stations automatically with the preset number.

**1  Turn FUNCTION to select FM or AM.**

**2  Hold down AUTO PRESET for about 2 seconds until "AUTO PRESET" runs through the display.**
Then release the button. Scanning begins with the FM band. The frequency will be displayed when a tuned station is stored. The display will return to the first stored station when scanning is finished.

- The unit scans the AM band if preset numbers are still available.
- Automatic presetting clears all the previously stored preset stations.
- If identical RDS stations with alternative frequencies are detected, only the station with the stronger signal is stored.
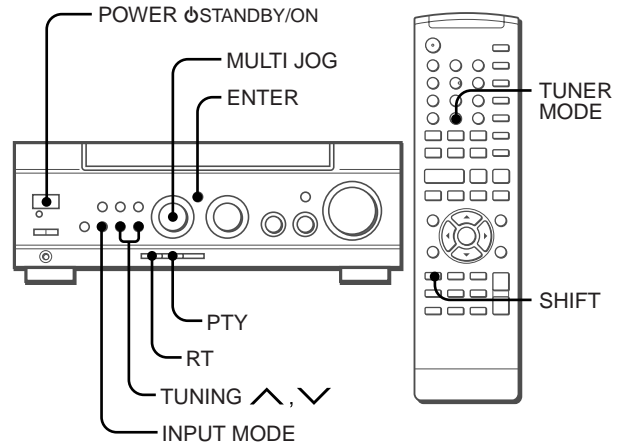
## TUNING IN PRESET STATIONS

**1  Select a band.**

**2  Turn MULTI JOG to select a preset number.**
Alternatively, press ▲ or ▼ on the remote control.
You can tune in the desired preset station directly by pressing the numbered buttons on the remote control.
- To select preset number 25, press 2 and 5.
- To select preset number 7, press 7.

**To clear a preset station**
1  Tune in the station by preset tuning.
2  Press ENTER, and press ENTER again while the frequency flashes on the display.
Alternatively, press ENTER or C on the remote control, and press ENTER while the frequency flashes on the display.

# RDS FEATURES

POWER ⏻STANDBY/ON
MULTI JOG
ENTER
TUNER MODE
SHIFT
PTY
RT
TUNING ⋀ , ⋁
INPUT MODE

RDS (Radio Data System) is a broadcasting service which allows FM stations to send additional information along with the regular radio signal.
The additional information is derived from the features of RDS described below.

**NOTE**

The RDS features described below may not function correctly if the RDS transmission data from the station contains too much interference or the reception is too weak.

## PROGRAM SERVICE STATION NAME (PS)

The station name is displayed automaticallly when an RDS station is tuned in.

## RADIO TEXT (RT)

You can show text information such as the title of a song on the display.

**Press RT.**
When the tuned station is transmitting RT codes, radio texts will appear on the display.
If the tuned station is not transmitting RT codes, "NO RT" is displayed.

**To return to the regular display**
Press RT again. The frequency display returns. Press RT once again and the station name display returns.

## PROGRAM TYPE (PTY)

This is an identification to specify the program being broadcast currently.

**Press PTY to display a program type when tuning in an RDS station.**
The program type will be displayed for 10 seconds.
If no PTY data or undefined PTY data is being transmitted, "NO PTY" or "UNDEFINE" is displayed.

En

**The following PTYs can be received on the unit**
*TRAFFIC, NEWS, AFFAIRS , INFO, SPORT, EDUCATE, DRAMA, CULTURE, SCIENCE, VARIED, POP M, ROCK M, EASY M (easy listening music), LIGHT M (light classical music), CLASSICS, OTHER M (other music), WEATHER, FINANCE, CHILDREN (children's program), SOCIAL (social affairs), RELIGION, PHONE IN, TRAVEL, LEISURE, JAZZ, COUNTRY (country music), NATION M (national music), OLDIES, FOLK M, DOCUMENT, TEST (alarm test), ALARM.
*The unit identifies TRAFFIC with one of the PTYs.

## PTY SEARCH

The unit can search for a station broadcasting your desired PTY easily. To do so, you need to preset every available station in advance since the unit searches only the preset stations.

**1 Press PTY.**
The program type of the currently tuned station is displayed.

**2 Within 4 seconds, press TUNING ∧/∨ or turn MULTI JOG to select a program type.**

**3 Within 4 seconds, press PTY again.**
The search begins, stops when a suitable station is detected, and the unit tunes it in.
"NOT FOUND  " is displayed if a suitable station is not found, and the unit returns to the previous station.

### If TRAFFIC is selected
The unit searches for a station which regularly broadcasts traffic announcements. Therefore, a detected station may not be currently broadcasting traffic announcements. You will, however, be able to hear the announcements in a while.

## ENHANCED OTHER NETWORKS INFORMATION SEARCH

The unit can leap to a station which has just started broadcasting your desired PTY.
In Enhanced Other Networks Information search, the unit is in standby mode until the desired PTY begins. As soon as it begins, the unit "leaps to" another station with the PTY and returns to the previously tuned station when it ends.
You need to preset every available station in advance since the unit searches only the preset stations.

**1 Press PTY.**
The program type of the currently tuned station is displayed.

**2 Within 4 seconds, press TUNING ∧/∨ or turn MULTI JOG to select a program type.**

**3 Within 4 seconds, press ENTER.**
"PTY ON " is displayed for 3 seconds and then the unit enters the standby mode while "AUTO " flashes. When the unit leaps to another station, "AUTO " flashes rapidly.

### To cancel the standby mode
Hold down PTY. (Do not release PTY yet.) "PTY CHECK  " and the specified PTY are displayed alternately. At this time, press ENTER with pressing PTY. "PTY OFF " is displayed and the standby mode is cancelled.

**NOTE**
PTY and Enhanced Other Networks Information search do not function under the following conditions:
- FM stations are not preset.
- The signals of the station broadcasting the desired PTY are weak.
- FM RDS stations cannot be received.

# ADJUSTMENTS

**To switch to monaural FM reception**
Hold down SHIFT and press TUNER MODE on the remote control so that "MONO " is displayed.
Noise is reduced, although reception is monaural.
**To cancel**, repeat the above so that "STEREO " is displayed.

**When the reception contains noise interference**
Move the unit away from other electrical appliances, especially digital audio devices, or turn off the applicances that generate noise signals.

**To switch the AM tuning interval**
The default setting of the AM tuning interval is 9 kHz/step. If you use this unit in an area where the frequency allocation system is 10 kHz/step, change the tuning interval.
Hold down INPUT MODE and press POWER ⏻STANDBY/ON on the unit.
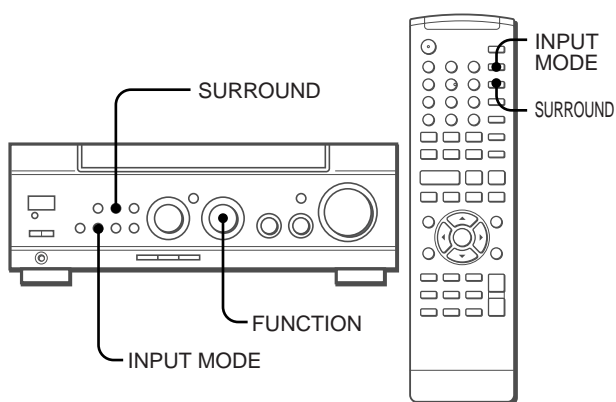To reset the interval, repeat this procedure.

**NOTE**
When the AM tuning interval is changed, all preset stations are cleared.

This unit is equipped with the Dolby Pro Logic decoder, Dolby Digital decoder and DTS decoder.

The unit and the centre and surround speakers (standard) assure full-scale home theatre sound. When playing back discs or video software that have been recorded in Dolby Pro Logic, Dolby Digital surround or DTS surround, astonishingly realistic sound surrounds the listener to create a new level of audio/visual entertainment.

Independent control of the five channels allows the listener to enjoy the same type of sound reproduction experienced in movie theatres. Voices are reproduced in the front and centre sound field, while ambient sounds like cars and crowds are reproduced on all sides of the listener for an incredibly lifelike audio/video experience.

# TURNING SURROUND ON AND OFF



**Check the followings:**
- **Before enjoying Dolby surround or DTS surround, set the speaker existance, size and distance (see page 16), and adjust the speaker sound levels to the proper balance (see page 17).**
- Make sure the speakers are properly connected and positioned (see pages 6 and 7).
- Make sure the TV set and video unit are properly connected (see page 4).
- Make sure the disc and video tape, etc., support Dolby Pro Logic, Dolby Digital surround or DTS surround.
- When connecting an LD player equipped with the AC-3 RF OUT terminal, use an RF demodulator unit. Also connect the analogue AUDIO OUT terminals of the LD player to the receiver to play all the sources. For further information, refer to the instructions of the LD player.

1 **Turn FUNCTION to select a function (except 5.1ch IN).**

2 **Press INPUT MODE repeatedly to select "DIGITAL " or "ANALOG ".**
Select in accordance with the connected equipment and sound source to be played.

3 **Play the surround source by the connected equipment.**
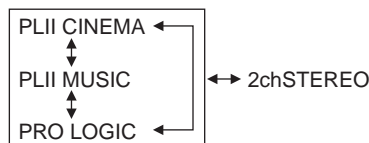
4 **Press SURROUND.**
Pressing the button changes the surround mode according to the type of the input signal, as follows.

In case Dolby Digital or DTS multichannel source is input:

DOLBY D or DTS ←→ 2chSTEREO

In case Dolby Digital 2-channel source or other source is input: Select Dolby Pro Logic or 2chSTEREO first by pressing SURROUND. Then, turn MULTI JOG to select the desired Pro Logic mode.

PLII CINEMA
PLII MUSIC         ←→ 2chSTEREO
PRO LOGIC

The following indicators light according to the input signal and other conditions.
DIGITAL   : Dolby Digital signal is input.
dts : DTS source signal is input.
PRO LOGIC (  II) : 2-channel source is played with surround set to on.

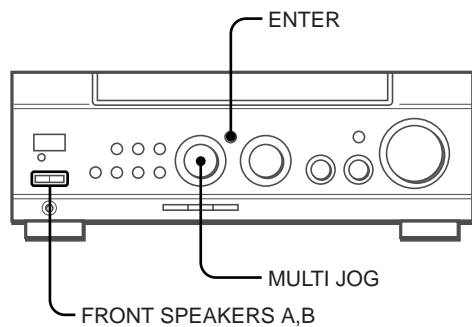**If you feel that the surround effect is not sufficient**
Surround playback is affected by many factors. Check the following points.
- Are settings made correctly according to the connected speakers and their position?
- Is the DVD digital out signal correctly selected?
- In Dolby Digital and DTS, there are multi-sources other than 5.1ch. Confirm the type of the source being played.
- A disc may contain multiple audio tracks. Confirm the audio track being played.
- Dolby Digital and DTS sources can be enjoyed only when connections are made in digital.

NOTE
- This unit supports input signals of the Dolby Digital surround bit stream, DTS surround bit stream and linear PCM whose sampling frequency is 32 kHz, 44.1 kHz, 48 kHz and 96 kHz.
- When connecting some DVD players to the receiver through the digital in terminals, noise may be heard in the DVD operation: e.g. searching a disc, skipping a chapter, entering a menu screen.

En

# SETTING SPEAKER SIZE AND DISTANCE



ENTER

MULTI JOG

FRONT SPEAKERS A,B

Set the speaker size (large or small) and the speaker distance (distance between the speaker and the listening position), as well as speaker existence, correctly as described below (except in 5.1ch IN function).

**Default settings**
Default settings of the speaker size and distance are as follows:
"FR LARGE " (Front speakers are large.)
"C LARGE " (Centre speaker is large.)
"S LARGE " (Surround speakers are large.)
"S-W ON " (Sub woofer is turned on.)
"FR 5.1M " (Distance between the left and right front speakers and the listening position is 5.1 metres.)
"C 5.1M " (Distance between the center speaker and the listening position is 5.1 metres.)
"S 3.6M " (Distance between the left and right surround speakers and the listening position is 3.6 metres.)
"BASS CROSSOVER FREQ 100 HZ " (Bass crossover frequency when selecting "SMALL " speaker is 100 Hz.)
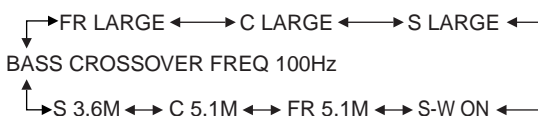
NOTE
- When "FR SMALL " is selected, "S-W ON " is selected automatically.
  When the front speakers are small, be sure to connect the sub woofer; otherwise the bass sound will not be emitted.
- When "S-W OFF " is selected, "FR LARGE " is selected automatically.
- When "FR SMALL " is selected, "C LARGE " and "S LARGE " cannot be selected.
- If you use the AIWA speaker system (such as SX-AVR30), select "FR SMALL ", "C SMALL " and "S SMALL ".

First make sure that the headphones are not connected, Source Direct function is not activated, and "BY-PASS ON " is not set for DTS.

**1 Press and hold down FRONT SPEAKERS A until "FR LARGE " is displayed.**

**2 Within 6 seconds, turn MULTI JOG.**
The adjustable items are displayed cyclically as follows:

FR LARGE ← → C LARGE ← → S LARGE ←
BASS CROSSOVER FREQ 100Hz
→ S 3.6M ← → C 5.1M ← → FR 5.1M ← → S-W ON ←

**3 When the item to be adjusted is displayed, press ENTER.**
The adjustable size (or distance, frequency) flashes.

**4 Within 6 seconds, turn MULTI JOG to adjust the size (or distance, frequency), and press ENTER.**

**Selectable sizes, distances and frequencies**

**[Front speakers]**
"LARGE " : larger size
"SMALL " : smaller size

**[Centre speaker]**
"LARGE " : larger size
"SMALL " : smaller size
"NONE " : no centre speaker

**[Surround speakers]**
"LARGE " : larger size
"SMALL " : smaller size
"NONE " : no surround speakers

LARGE : Frequencies (sounds) over all the band of the channel is output.
SMALL : Frequencies (sounds) under 100 Hz, 160 Hz or 220 Hz are not output. They are re-directed to the sub woofer or other large speakers.

**[Sub woofer]**
"ON " : sub woofer activated
"OFF " : sub woofer deactivated or no sub woofer

**[Distance between the front sepakers and the listening position]**
From "0.3" metre to "9.0" metres with 0.3 metre steps

**[Distance between the centre speaker and the listening position]**
From "0.3" metre to "9.0" metres with 0.3 metre steps

**[Distance between the surround speakers and the listening position]**
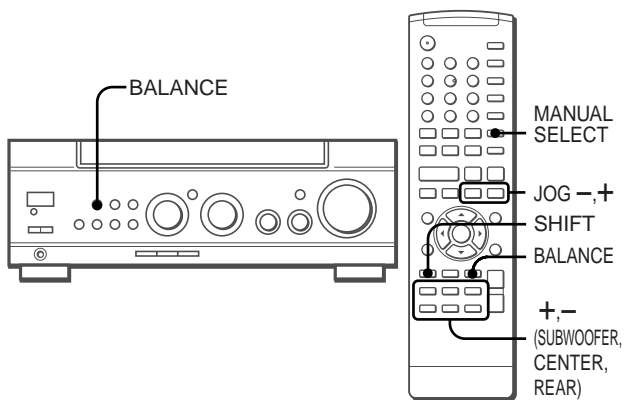From "0.3" metre to "9.0" metres with 0.3 metre steps

**[Bass crossover frequency when selecting "SMALL " speaker]**
"100HZ": Bass crossover frequency is 100 Hz (Woofer diameter: 16 cm or more).
"160HZ": Bass crossover frequency is 160 Hz (Woofer diameter: approximately 12 cm).
"220HZ": Bass crossover frequency is 220 Hz (Woofer diameter: 8 cm or less).
Select this mode when using AIWA SX-AVR30.

NOTE
- When setting all the speaker sizes to "LARGE ", there may be a case that no sound is output from the sub woofer even if "S-W ON " is selected.
- When setting the speaker distance, first set the front speakers distance. The centre speaker distance then can be set between the distance equal to the front speaker distance and the distance 1.5 metres shorter than the front speaker distance. Also, the surround speakers distance can be set between the distance equal to the front speaker distance and the distance 4.5 metres shorter than the front speaker distance.
- Adjust the centre speaker distance so that the voices are heard from the centre position.
- When the front speakers distance is changed, the centre and surround speakers distance may automatically be modified.

# ADJUSTING SPEAKER LEVEL BALANCE



BALANCE

MANUAL SELECT

JOG −,+

SHIFT

BALANCE

+,−
(SUBWOOFER, CENTER, REAR)

The unit is equipped with a built-in test signal generator called a noise sequencer for easy balance adjustment of all five channels. The sequencer outputs a noise signal that "travels" from channel to channel, enabling the simple adjustment of sound level to achieve the same apparent loudness, at your listening position, from each channel.
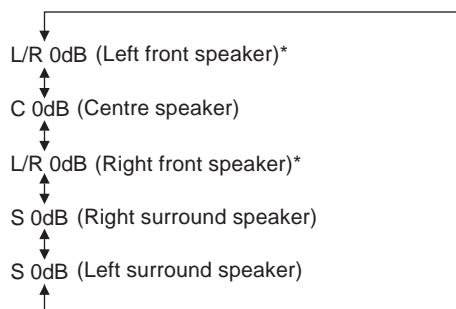
**Preparation**
• **Before adjusting the speaker level balance, be sure to set the speaker size, distance and existance correctly.**
• Before adjusting the speaker level balance, turn off the DSP surround system.
• Operate the unit while playing the source recorded in Dolby Digital surround or Dolby Pro Logic.

**1  Turn SURROUND on.**

**2  Hold down SHIFT and hold down MANUAL SELECT on the remote control until "L" of "L/R 0dB" starts to flash.**
A noise signal is sent to each channel in turn at the interval of 2 seconds as follows:

L/R 0dB (Left front speaker)*

C 0dB (Centre speaker)

L/R 0dB (Right front speaker)*

S 0dB (Right surround speaker)

S 0dB (Left surround speaker)

* L or R flashes to indicate one of the front speakers from which the noise signal is output.

**3  Adjust the sound level of the centre and surround speakers.**
While "C" or "S" flashes in the display, press JOG + or − on the remote control so that the sound level of the centre or surround speakers matches that of the front speakers.
The balance of the front speakers can be adjusted as well while "L/R" is displayed.

**4  Press MANUAL SELECT again to stop the noise signal.**

NOTE
• When the noise signal cycles through all the speakers for ten times, the noise signal stops automatically.
• When the centre speaker and/or surround speakers are set to "NONE", their level balance cannot be adjusted. ("C 0dB" and "S 0dB" are not displayed.)

**About the channels**
**The left and right front speakers** create the stereo effect.
**The centre speaker** helps precise sound positioning over a broad sound field.
**The surround speakers** enhance the "depth" of the sound field.

## CHANGING SPEAKER VOLUME TEMPORARILY

According to the software played or your preference, you can change the sub woofer, centre speaker and surround speakers volume temporarily.

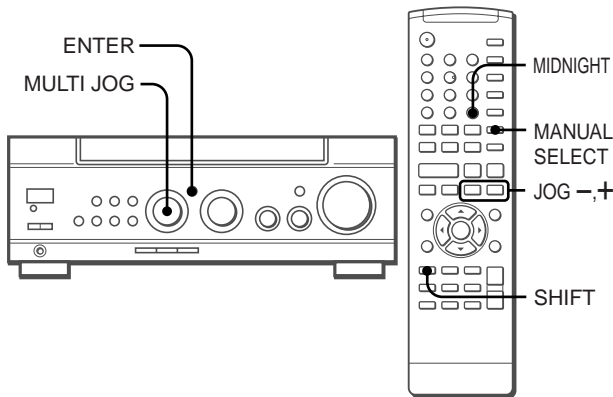**Press SUBWOOFER +/−, CENTER +/− or REAR +/− on the remote control.**
Each speaker level can be changed within the range from −10 dB to +10 dB at 1 dB steps.

**To restore the volume and balance to the default value**

**Press and hold BALANCE until "LVL RESET" is displayed.**
All the speaker volume as well as the left and right balance of the front and surround speakers are reset to the default value (0 dB).

En

# OTHER SETTINGS



ENTER
MULTI JOG

MIDNIGHT
MANUAL SELECT
JOG −,+
SHIFT

## ADJUSTING LOW FREQUENCY SOUND EFFECT (LFE)

The disc recorded in Dolby Digital surround contains special signals called LFE to enhance low frequency sound effect.
The LFE signals are recorded in some particular parts on the disc and output from the connected sub woofer to reproduce astonishingly powerful low sound.
The sound level of the LFE signals can be adjusted according to your speakers.

**Preparation**
Play a disc recorded in Dolby Digital surround.

**1 Press MANUAL SELECT on the remote control.**
"LFE" is displayed.

**2 Press JOG + or − to adjust the LFE level.**
The unit is initially set to 0 dB (maximum) and can be adjusted as follows:

OFF ⟷ −10 dB ⟷ −5 dB ⟷ 0 dB

MULTI JOG on the unit is also available.

When selecting "S-W OFF ", the LFE signals are redistributed to other speakers.

## ADJUSTING DYNAMIC RANGE

Dynamic range of the sound can be adjusted. The unit is initially set to "STD " (standard) mode.

**Preparation**
Play a disc recorded in Dolby Digital surround.

**1 Hold down ENTER (hold down SHIFT and press MIDNIGHT).**
"MID NIGHT THEATER    " runs through on the display.

**2 Turn MULTI JOG (press JOG + or −) to select "MIN ", "MAX " or "STD ".**

MIN : You can enjoy the full dynamic range of sound like in the movie theatre.
STD : Original position, when playing back in home, that is recommended by the software producers.
MAX : Select this mode when playing back at low volume.

## TO LISTEN TO THE ORIGINAL DTS SOUND

When "dts" appears on the display, all the sound settings can be cancelled.

**Preparation**
Play a disc recorded in DTS surround.

**1 Press ENTER.**
"BYPASS OFF " is displayed.

**2 Press ENTER again so that "BYPASS ON " is displayed.**

**To restore the sound settings**
Repeat steps 1 and 2 so that "BYPASS OFF " appears.

**To operate with the remote control**
Hold down SHIFT and press MIDNIGHT repeatedly.

## ADJUSTING THE SOUND OF DOLBY PRO LOGIC II MUSIC MODE

In Dolby Pro Logic II Music mode, press MANUAL SELECT repeatedly to select one of the adjusting modes (PANO, DMSN or CTR W). Then press JOG + or − to turn the mode on or off, or select the level.
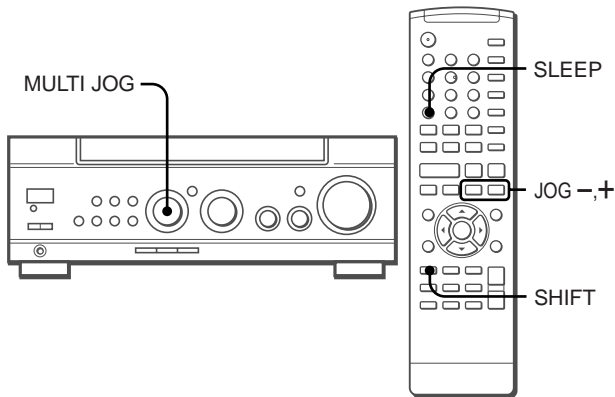
**Panorama mode (PANO):** Expands stereo effect of the front speakers toward the rear sound field and enhances "surrounded" stereo effect.

**Dimension mode (DMSN):** Adjusts the level to move the broad sound field to the front side (F) or rear side (R). The level changes as follows:

R+3 ⟷ R+2 ⟷ R+1 ⟷ OFF(normal) ⟷ F+1 ⟷ F+2 ⟷ F+3

**Centre width mode (CTR W):** Redistributes centre speaker's signals to the front speakers.

# SETTING THE SLEEP TIMER



MULTI JOG

SLEEP

JOG −,+

SHIFT

The unit can be automatically turned off at a specified time.

**1  Hold down SHIFT and press SLEEP on the remote control.**
"SLEEP" is displayed.

**2  Within 6 seconds, press JOG + or − repeatedly to set the sleep timer duration.**
With each press, the timer duration changes in 5-minute steps between 5 to 240 minutes. If there is no button input for 6 seconds, the current setting is entered automatically.
The unit turns off after the selected time.
• MULTI JOG on the unit is also available.

**To check the remaining time until the unit turns off**
Hold down SHIFT and press SLEEP on the remote control.
The remaining time is displayed for 6 seconds.

**To cancel the sleep timer**
Hold down SHIFT and press SLEEP on the remote control repeatedly so that "SLEEPoFF " is displayed.

# CARE AND MAINTENANCE

Occasional care and maintenance of the unit is needed to optimize the performance of your unit.

**To clean the cabinet**
Use a soft dry cloth.
If the surfaces are extremely dirty, use a soft cloth lightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzine or thinner as these could damage the finish of the unit.

# TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these Operating Instructions, check the following guide.

## GENERAL
**There is no sound.**
• Is the AC cord connected properly?
• Is there an incorrect connection? (→ pages 4-6)
• There may be a short circuit in the speaker terminals.
→ Disconnect the AC cord, then correct the speaker connections.
• Was an incorrect function selected?
• Is FRONT SPEAKERS A or B set correctly? (→ page 9)
**Sound is emitted from one speaker only.**
• Is BALANCE set appropriately?
• Is the other speaker disconnected?
**Sound is heard at a very low volume.**
• Has MUTING been pressed?
**An erroneous display or a malfunction occurs.**
→ Reset the unit as stated below.

## TUNER SECTION
**There is constant, wave-like static.**
• Is the antenna connected properly? (→ page 7)
• Is the FM signal weak?
→ Connect an outdoor antenna.
**The reception contains noise interference or the sound is distorted.**
• Is the system picking up external noise or multipath distortion?
→ Change the orientation of the antenna.
→ Move the unit away from other electrical appliances.

**To reset**
If an unusual condition in the display window or malfunction occurs, reset the unit as follows:
**1**  Press POWER ⏻STANDBY/ON to turn off the power.
**2**  Press POWER ⏻STANDBY/ON while pressing ENTER. Everything stored in memory after purchase is cancelled.
If the power cannot be turned off in step 1 because of a malfunction, disconnect the AC cord, and reconnect the AC cord after several seconds. Then carry out step 2.

En

# SPECIFICATIONS

## FM tuner section

| | |
|---|---|
| **Tuning range** | 87.5 MHz to 108 MHz |
| **Usable sensitivity (IHF)** | 16.8 dBf |
| **Antenna terminal** | 75 ohms (unbalanced) |

## AM tuner section

| | |
|---|---|
| **Tuning range** | 531 kHz to 1602 kHz (9 kHz step) |
| | 530 kHz to 1710 kHz (10 kHz step) |
| **Usable sensitivity** | 350 μV/m |
| **Antenna** | Loop antenna |

## Amplifier section

**Power output**

**Front**
Rated: 80 W + 80 W (8 ohms, T.H.D. 0.9%, 1 kHz/DIN 45500)
Reference: 100 W + 100 W (8 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
DIN MUSIC POWER
150 W + 150 W

**Rear (surround)**
Rated: 80 W + 80 W (8 ohms, T.H.D. 0.9%, 1 kHz/DIN 45500)
Reference: 100 W + 100 W (8 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
DIN MUSIC POWER
150 W + 150 W

**Centre**
Rated: 80 W (8 ohms, T.H.D. 0.9%, 1 kHz/DIN 45500)
Reference: 100 W (8 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
DIN MUSIC POWER
150 W

**Total harmonic distortion**
0.05% (60 W, 1 kHz, 8 ohms, front)

**Inputs**
AUDIO IN
DVD: 250 mV, adjustable (47 kohms)
VIDEO 2/LD/TV: 250 mV, adjustable (47 kohms)
VIDEO 1/MD: 250 mV, adjustable (47 kohms)
TAPE: 250 mV, adjustable (47 kohms)
AUX: 250 mV, adjustable (47 kohms)
CD: 250 mV, adjustable (47 kohms)
5.1CH INPUT
FRONT, CENTER, SURROUND, SUB WOOFER:
250 mV (47 kohms)
DIGITAL IN
COAXIAL (VIDEO 2):
OPTICAL (VIDEO 1):
OPTICAL (DVD):
accept linear PCM signals and bit stream of Dolby Digital and DTS surround (32 kHz, 44.1 kHz, 48 kHz and 96 kHz)
VIDEO IN
DVD: 1 Vp-p (75 ohms)
VIDEO 2/LD/TV: 1 Vp-p (75 ohms)
VIDEO 1/MD: 1 Vp-p (75 ohms)

**Outputs**
AUDIO OUT
VIDEO 1/MD: 250 mV (1 kohm)
TAPE: 250 mV (1 kohm)
VIDEO OUT
VIDEO 1/MD: 1 Vp-p (75 ohm)
MONITOR: 1 Vp-p (75 ohm)
SUB WOOFER: 4.0 V
FRONT SPEAKERS: accept speakers of 8 ohms or more.
SURROUND SPEAKERS: accept speakers of 8 ohms or more.
CENTER SPEAKER: accept speaker of 8 ohms or more.
PHONES (stereo jack): accepts headphones of 32 ohms or more

**Muting**
–20 dB

## General

| | |
|---|---|
| **Power requirements** | 230 V AC, 50 Hz |
| **Power consumption** | 165 W |
| **Dimensions (W × H × D)** | |
| | 430 × 155.5 × 355 mm |
| **Weight** | 7.8 kg |

Specifications and external appearance are subject to change without notice.

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**NOTE**
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The above information is only for Italy.

# PARTS INDEX

Instructions about each part on the unit or remote control (in alphabetical order) are indicated on the pages listed below.

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**En**

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