

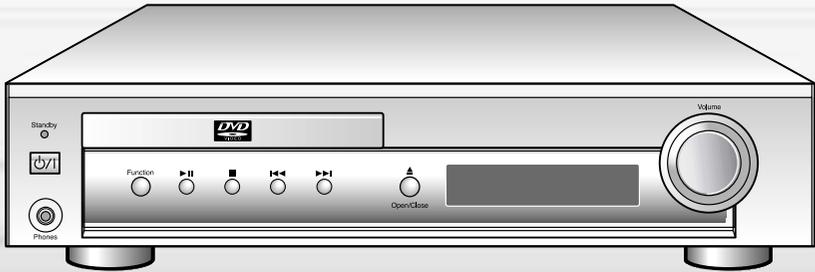


DIGITAL HOME THEATER SYSTEM HT-DL105

THIS APPLIANCE IS MANUFACTURED BY:



Instruction Manual



Safety Warnings



CLASS 1 LASER PRODUCT
 KLASSE 1 LASER PRODUKT
 LUOKAN 1 LASER LAITE
 KLASSE 1 LASER APPARAT
 PRODUCTO LASER CLASE 1

CAUTION
 RISK OF ELECTRIC SHOCK.
 DO NOT OPEN

CAUTION:
 TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE REAR COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CLASS 1 LASER PRODUCT
 This Compact Disc player is classified as a CLASS 1 LASER product.

Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION-INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED, AVOID EXPOSURE TO BEAM.

This symbol indicates that dangerous voltage which can cause electric shock is present inside this unit.

This symbol alerts you to important operating and maintenance instructions accompanying the unit.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Wiring the Main Power Supply Plug(UK Only)

IMPORTANT NOTICE

The main lead on this equipment is supplied with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug and if it requires replacing, a fuse approved to BS1362 of the same rating must be used.

Never use the plug with the fuse cover removed. If the cover is detachable and a replacement is required, it must be of the same colour as the fuse fitted in the plug. Replacement covers are available from your dealer.

If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.

However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug. Do not connect the plug to a main socket as there is a risk of shock hazard from the bared flexible cord.

Never attempt to insert bare wires directly into a main socket. A plug and fuse must be used at all times.

IMPORTANT

The wires in the main lead are coloured in accordance with the following code:-

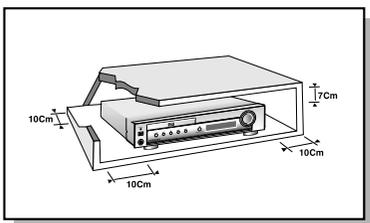
BLUE = NEUTRAL BROWN = LIVE

As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:-

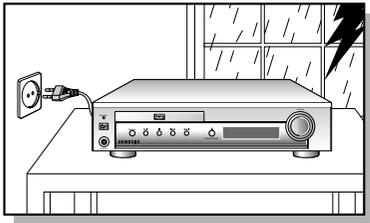
The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK.
 The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

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

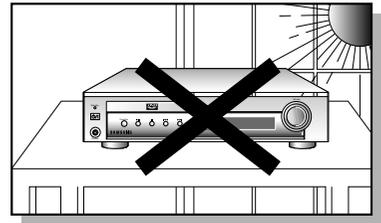
Precautions



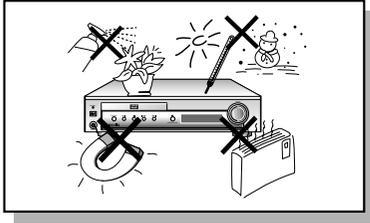
Ensure that the mains supply in your house complies with that indicated on the identification sticker located at the back of your play. Install your player horizontally, on a suitable base (furniture), with enough space around it for ventilation (7-10cm). Make sure the ventilation slots are not covered. Do not stack other, or heavy devices on top over the player. Do not place the player on amplifiers or other equipment which may become hot. Before moving the player ensure the disc tray empty. This player is designed for continuous use. Switching off the DVD player to the stand-by mode does not disconnect the electricity supply. In order to separate the player completely from the mains, it has to be disconnected by unplugging the main plug, especially when left unused for a long period of time.



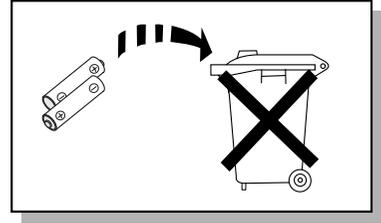
During thunderstorms, disconnect the main plug from the socket.
 Main voltage peaks due to lightning could damage the unit.



Do not expose the unit to direct sun radiation or other heat sources.
 This could lead to overheating and malfunction of the unit.



Protect the player from moisture (dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the player), and excess heat (e.g. fireplace) or equipment creating strong magnetic or electric fields (i.e. speakers...) disconnect the power cable from the mains electricity supply if the player malfunctions. Your player is not intended for industrial use but for domestic purposes only. Use of this product is for personal use only. Condensation If your player or disc have been stored in a cold atmosphere, as for example during transportation in the winter, wait for approximately 2 hours until they have reached room temperature.



The battery used in this product contains chemicals that are harmful to the environment.
 Do not dispose of batteries in the general household waste. It is recommended that the replacement of the battery should be done by a technician.



Contents



DVD (Digital Versatile Disc) offers fantastic audio and video, thanks to Dolby Digital surround sound and MPEG-2 video compression technology. Now you can enjoy these realistic effects in the home, as if you were in a movie theater or concert hall.



DVD players and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play. The Region Number for this player is given on the rear panel of the player. (Your DVD player will only play DVDs that are labeled with identical region codes.)

Do not use the following types of disc!

- LD, CDG, CD-I, CD-ROM and DVD-ROM cannot be played on this player. If such discs are played, a "WRONG DISC FORMAT" message appears on the TV screen.
- DVD discs purchased abroad may not play on this player. If such discs are played, a "WRONG REGION CODE" message appears on the TV screen.

Copy Protection

- Many DVD discs are encoded with copy protection. Because of this, you should only connect your DVD player directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected DVD discs.
- This product incorporates copyright protection technology that is protected by methods claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

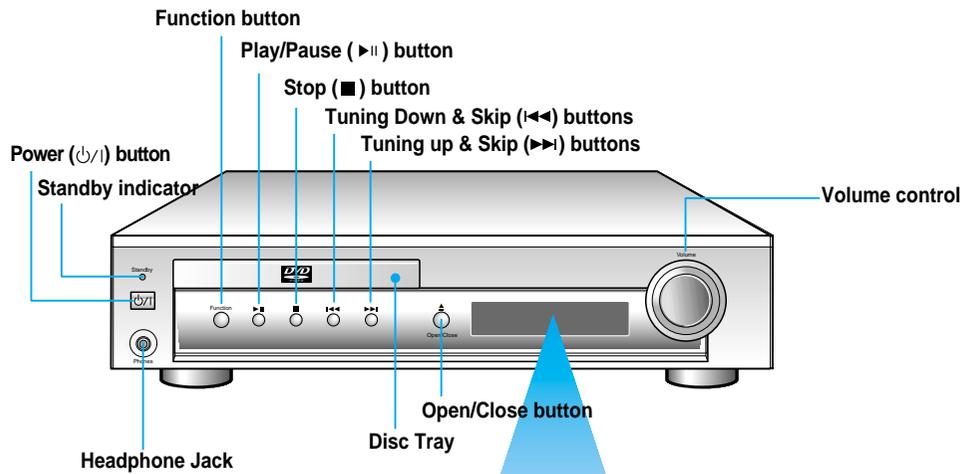
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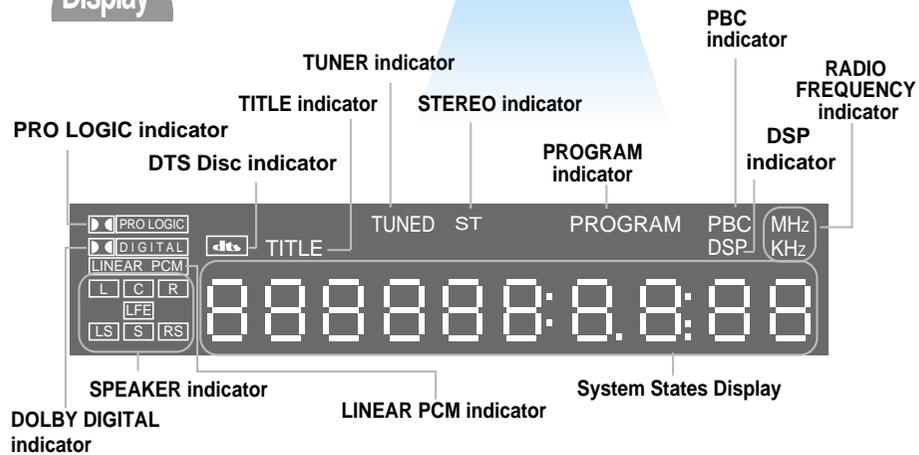
Description



Front Panel



Display

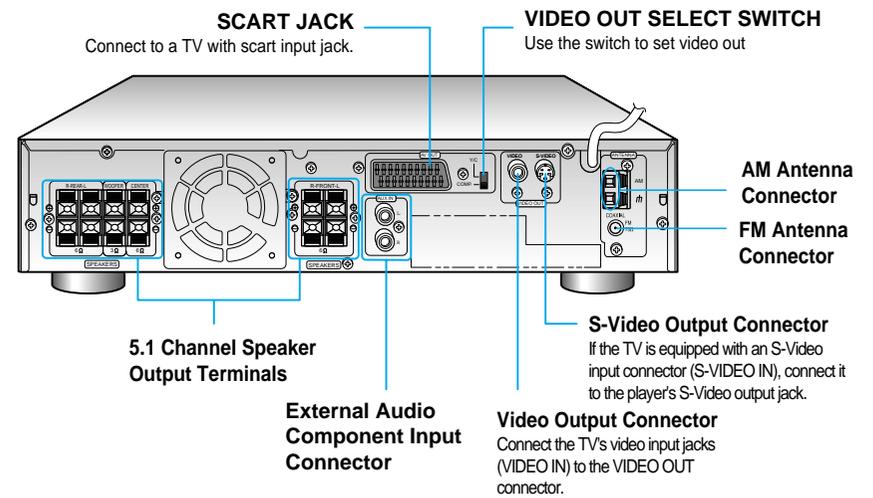
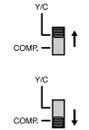


Rear Panel



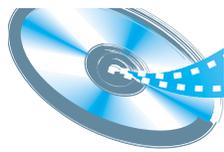
For using the SCART cable

- If S-Video (Y/C-separation) is equipped for your TV, set Y/C-COMP. selector of the center unit to Y/C. You can get a better picture quality by using S-Video (Y/C-separation) setting.
- If S-Video (Y/C-separation) is not equipped for your TV, set Y/C-COMP. selector to COMP.



Accessories





Remote Control Unit



DVD POWER button

DVD button
TUNER button
AUX button

Title button
Menu button
Subtitle button
Audio MO/ST(mono/stereo) button

Display button
Return button
Go To button



TV Power button
TV Channel Selection button
TV Volume Control button
TV/VIDEO button

Play/Pause button
Stop button
Tuning Preset/CD Skip button
Tuning Up/Down/CD Search button

Direction/Enter button

Volume Control buttons
 Speaker output volume control

Sleep button
Mute button

DSP/DPL II Effect button
DSP/DPL II Mode button

To open the remote control cover, push the top of the cover, then slide downward.



RDS Selection button

Number(0-9) buttons

Slow button

Angle button

Repeat button

TV System/Zoom button

Repeat A↔B button

D.R.C button

Sound Edit button
SPK Mode button
Pro Logic II button
Test Tone button

Clear button

Step button

Setup button

Program button

Remain button

Insert Remote Batteries

- 1 Remove the battery cover on the back of the remote by pressing down and sliding the cover in the direction of the arrow.
- 2 Insert two 1.5V AAA batteries, paying attention to the correct polarities (+ and -).
- 3 Replace the battery cover.

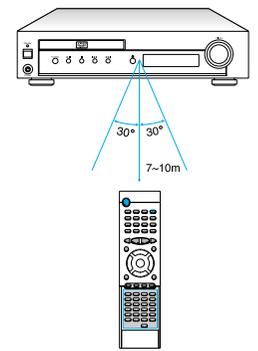
CAUTION

Follow these precautions to avoid leaking or cracking cells:

- Place batteries in the remote control so they match the polarity:(+) to (+)and (-)to (-).
- Use the correct type of batteries.Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

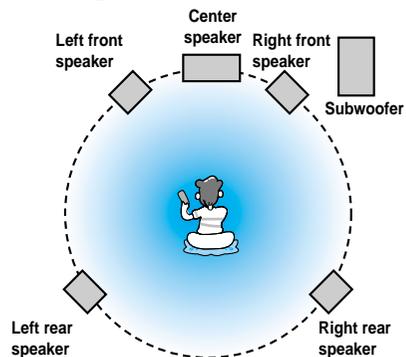
Range of Operation of the Remote Control

The remote control can be used up to approximately 23 feet/7 meters in a straight line. It can also be operated at a horizontal angle of up to 30° from the remote control sensor.

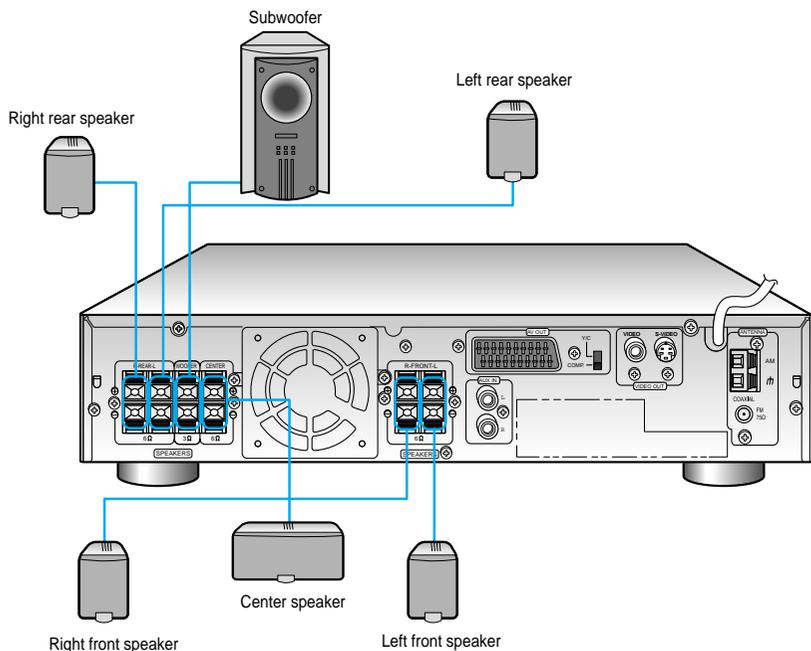
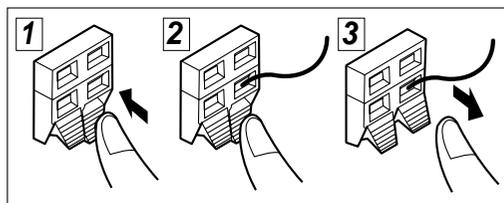


Connecting the Speakers

- Connect the satellite speakers, center speaker, and subwoofer to the terminals on the rear panel using speaker cords supplied.
- Insert the end of the speaker cord into the terminal. Match the polarity (colors): Red (+) to red (+) and black (-) to black (-).



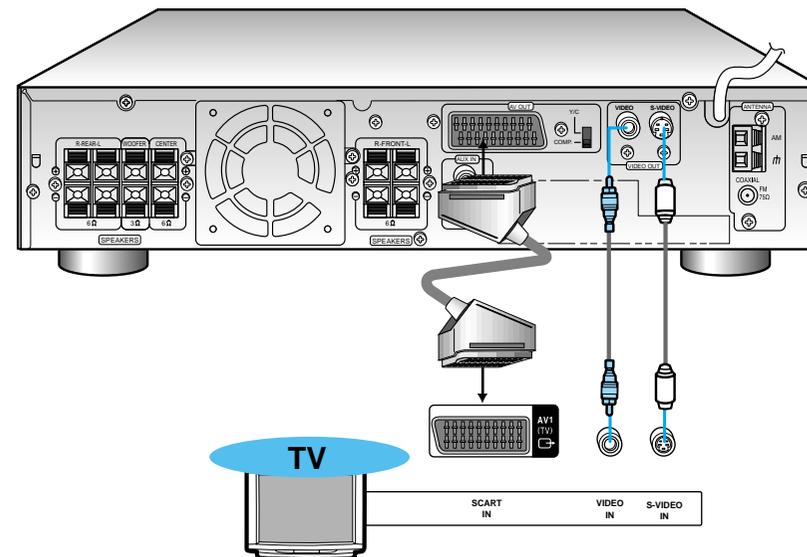
- 1 Press and hold the terminal tab.
- 2 Insert the speaker cord.
- 3 Release the finger.



Note

• for in-depth information about adjusting the delay time, see "Speaker Settings" on pages 32.

Connect Video to TV



Composite Video (Good Quality)

Connect the supplied video cable from the VIDEO OUT jack on the back panel of the system to the VIDEO IN jack on your television.

S-Video (Better Quality)

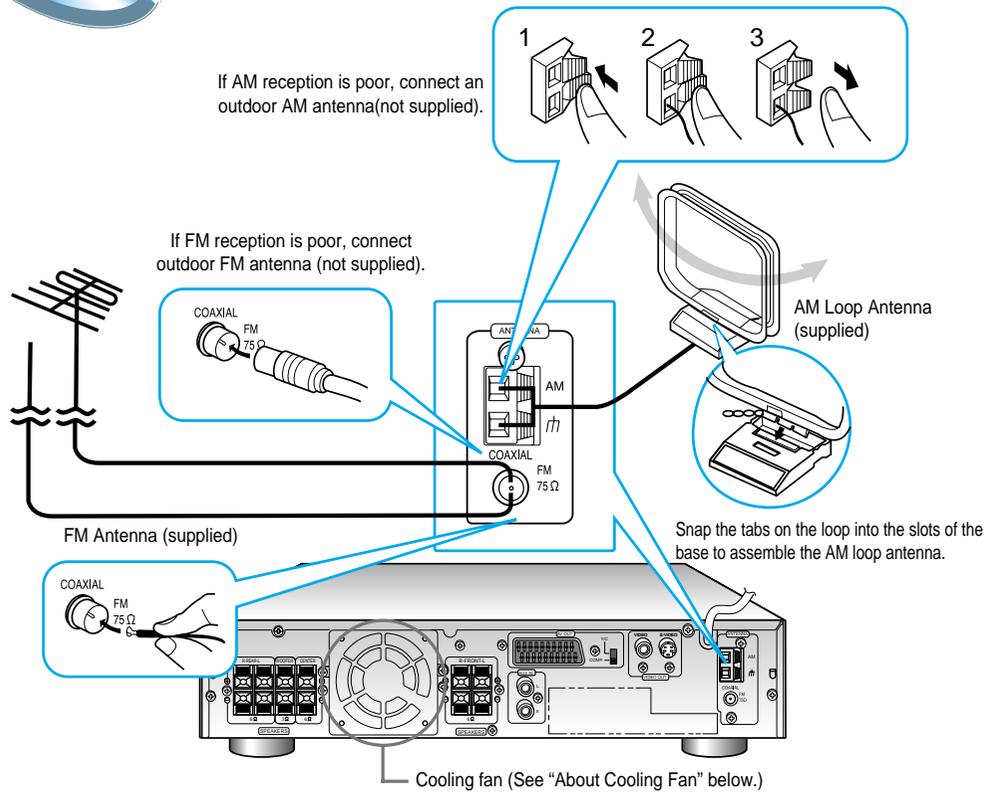
If your television is equipped with an S-Video input, connect an S-Video cable (not supplied) from the S-VIDEO OUT jack on the back panel of the system to the S-VIDEO IN jack on your television.

Scart (Best Quality)

If your television is equipped with an SCART input, connect an Scart Jack (not supplied) from the AV OUT jack on the back panel of the system to the SCART IN jack on your television.

If your TV SCART terminal with Y/C-COMP. selector, you can get a better picture quality by setting Y/C-COMP.selector to Y/C . in this case , you need to set Y/C-COMP. selector of the center unit to Y/C.

Connecting the FM and AM(MW/LW) Antennas



FM antenna connection

1. Connect the FM antenna supplied to the FM 75Ω COAXIAL terminal.
2. Slowly move the antenna wire around until you find a location where reception is good, then fasten it to a wall or other rigid surface.

- If reception is poor, connect an outdoor antenna. Before attaching a 75Ω coaxial cable (with a standard type connector), disconnect the supplied FM antenna.

(About the cooling fan)

A cooling fan is mounted on the rear panel of the center unit to prevent abnormal temperature inside the center unit, thus assuring normal operation. The cooling fan automatically starts rotating to supply external cool air to the inside of the center unit when the internal temperature exceeds the specified limit.

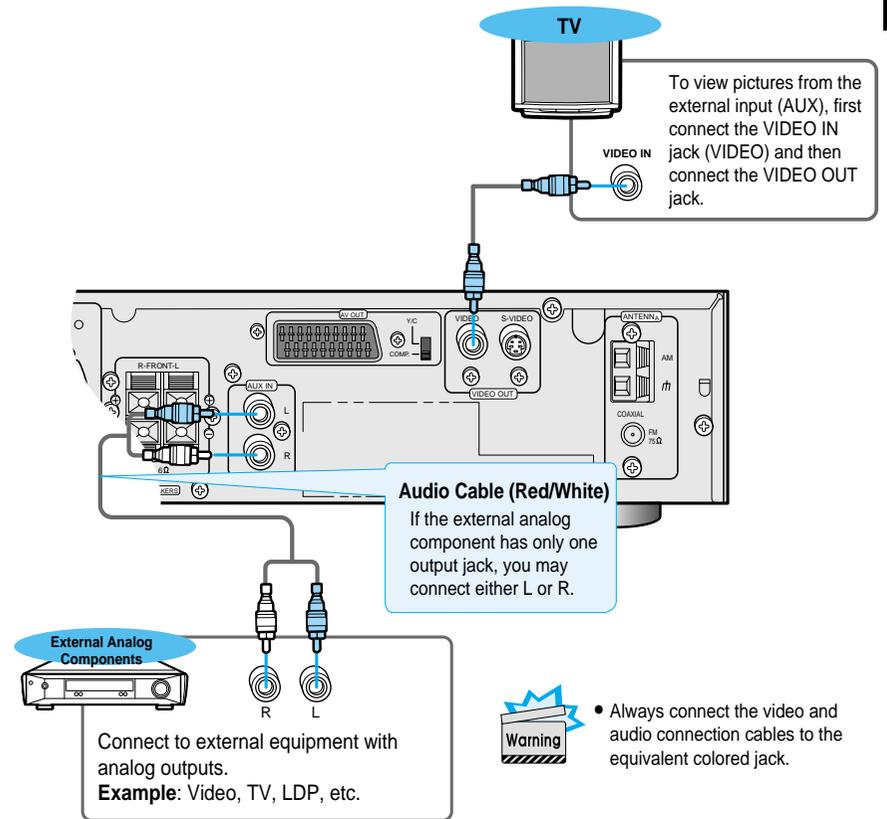
AM(MW/LW) antenna connection

1. Connect the AM loop antenna supplied to the AM and π terminals.
2. If reception is poor, connect an outdoor single vinyl-covered wire to the AM terminal. (Keep the AM loop antenna connected).

For safety, observe the following carefully.

- Make sure there is good ventilation around the center unit. Poor ventilation could overheat and damage the center unit.
- DO NOT block the cooling fan and the ventilation openings or holes. (If they are blocked by a newspaper or cloth, etc., the heat may not be able to escape.)

AUX Connections



Making Analog Input Selection

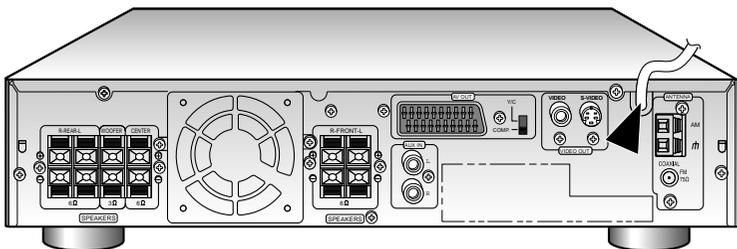
- Remote Control → Press the **AUX** button and select ANALOG IN.
- Main Unit → Press the **Function** button and select ANALOG IN.

Connecting your System to the Power Supply

The main lead must be plugged into an appropriate socket.

Before plugging your system into an AC outlet, you must check the voltage.

1. Plug the AC Cord on the rear of the system into an appropriate outlet.
2. Press the On/Standby button to switch your DVD Player system on.

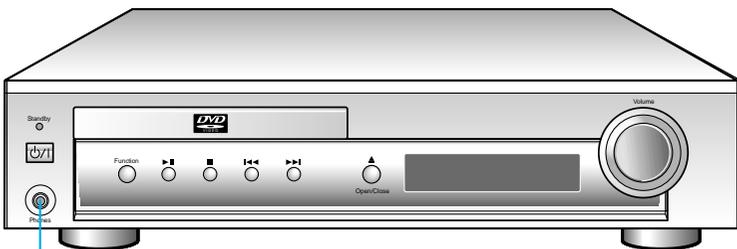


Listening on headphones

Use headphones for private listening pleasure (not supplied).

Connect the headphones to the HEADPHONES jack of the front panel.

- No sound is produced from the speakers.
- To prevent hearing damage, do not raise the volume level excessively when using headphones.



HEADPHONE jack

Before Using the DVD Player

Your DVD player is capable of playing DVD, VCD, and CD discs.

User instructions may vary depending on the type of disc. Read the instructions carefully before use.

1

Turn on the power to your DVD player and TV.

2

Select a video mode by pressing the TV/VIDEO button.

3

Press the DVD button to select the DVD input function.

- Note**
- The "WAIT" message that appears on the display for about seven to eight seconds when turning on the power or selecting a DVD function indicates a stabilization period for optimizing the condition of your DVD player. While the message is being displayed, other buttons remain inactive.
 - When the power is not turned on, press down the Stop (■) button on the main unit for over 5 seconds. The product will be initialized to its optimum state.
 - Certain operational features such as the Speaker mode, Test tone, Volume, etc. will not be displayed on the TV screen.
 - If your TV model is not SAMSUNG, refer to "Remote Control Unit Setup" on page 30.

TV System Selection



Press the TV System button while in stop mode.

- Each time the TV System button is pressed, "NTSC, PAL" are selected in this order.

※ Different countries use different types of TV broadcast systems, video, audio and channel systems.

Example : The player cannot playback PAL-encoded DVD with NTSC-TV.

DVD Playback

- 1**

Press the **Open/Close** (▲) button to open the disc tray.

 - The button is located only on the Front Panel of the player (not on the remote).
- 2**

Insert a DVD disc.

 - Place a disc gently into the tray with the disc's label facing up.
- 3**

Press the **Open/Close** (▲) button again to close the disc tray.

 - Playback starts automatically.

Using the On-Screen Display

Press the Display button on the remote.

The OSD displays the following information:

- DVD indicator
- TITLE indicator (T 1/2)
- CHAPTER indicator (C 1/8)
- TITLE ELAPSED indicator (00:00:00)
- SUBTITLE LANGUAGE indicator
- AUDIO LANGUAGE indicator
- DISC TYPE indicator
- ANGLE indicator (1/1)
- REPEAT indicator

The On-Screen Display disappears.

Pausing Playback

Press the **Play/Pause** (▶||) button during playback.

- To resume, press the Play/Pause (▶||) button again.

- Note**
- Depending on the disc, the initial disc information screen may look different from disc to disc.
 - When playing a DVD containing MPEG format, video may not be reproduced correctly and you may get picture distortion.

Stopping Playback

Press the **Stop** (■) button during playback.

- During playback, when the Stop (■) button is pressed, the position is stored in the memory, and ▶■ STOP is shown on the display. When the Play/Pause (▶||) button or Return button is pressed subsequently, playback resumes from the position at which it was stopped.
- If the Stop (■) button is pressed a second time, the 'resume play' memory function is canceled, and ■ STOP is shown on the display. When the Play/Pause (▶||) button is pressed, playback starts from the beginning.

What is a Title?

A movie contained in a DVD disc.

What is a Chapter?

Each Title on a DVD disc is divided into several smaller sections called "chapters".

Turning the sound off temporarily?

Press the **Mute** button during playback.

- This operation may be useful when you need to greet the guests or answer the telephone.

- Note**
- If the player is left for more than 3 minutes in pause mode, it will stop.

Forward/Reverse Searching

During playback, you can search quickly through a chapter or track for a specific scene or tune.

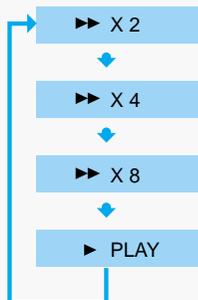
High-Speed Playback

Press the ◀◀ and ▶▶ button.

Each time the ◀◀ button is pressed



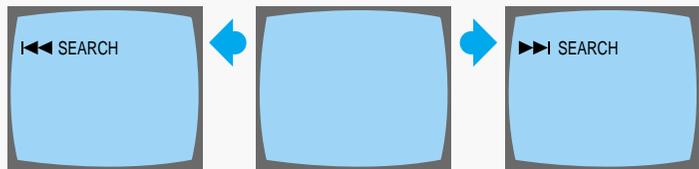
Each time the ▶▶ button is pressed



Skipping through a Chapter

Press the ◀◀ and ▶▶ button.

- Each time the button is pressed during playback, it moves to the next or previous chapter and plays it.



Playing Frame by Frame

Press the Step button.

- The picture moves forward one frame each time the button is pressed.

Note

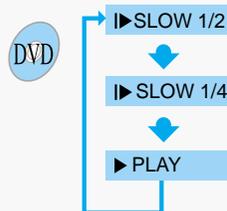
No sound is heard during high-speed playback, slow playback, and step motion.

Slow Playback/Checking the Remaining Time

Playing Slowly

Press the Slow button.

Each time the Slow button is pressed



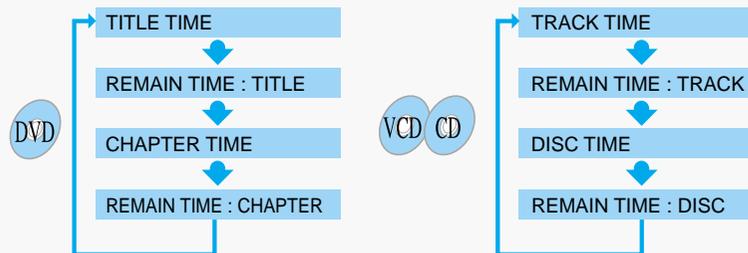
The slow playback speed changes and the selections (1/2X, 1/4X, 1/8X, 1/16X and normal play) are repeated.

Checking the Remaining Time

Press the Remain button.

- For checking check the total time and the remaining time of a title or chapter being played.

Each time the Remain button is pressed



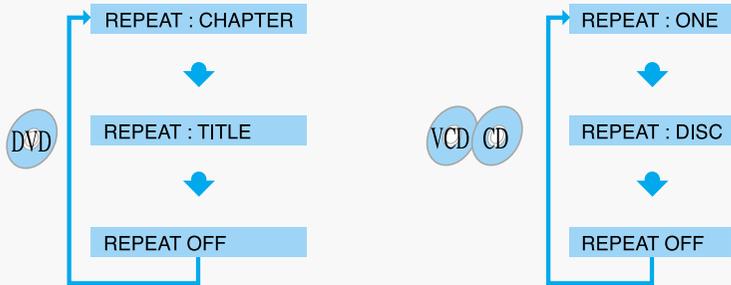
Repeat Playback

Repeat playback allows you to repeat a chapter, title, or track.

Playing Repeatedly

Press the Repeat button.

Each time the Repeat button is pressed



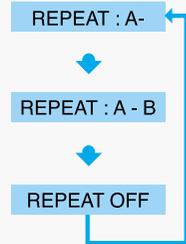
Note • Repeat playback operation is not possible with version 2.0 VCD discs if PBC is turned on. To operate this feature, press the MENU button, and then select "PBC OFF".

A↔B Repeat Playback

- 1 Press the **Repeat A↔B** button at the beginning (A) of the segment you want to review.
- 2 Press the **Repeat A↔B** button again at the end (B) of the segment you want to review.
 - The segment will begin repeating.

To return to normal playback

Press the **Repeat A↔B** button again.



Using Disc Menu/Title

To Select the Disc Menu

You can use the menus for the audio language, subtitle language, profile, etc. DVD menu contents differ from disc to disc.

1

Press the **Menu** button during playback.

2

Use the **Up/Down** (▲ / ▼) or **Left/Right** (◀ / ▶) button to access the different features.

3

Press the **Enter** button.

- The Menu Screen appears.
- When playing a VCD version 2.0, you can operate it using PBC On/Off function.
- The selected item will play.

Using the Title Menu

For DVDs containing multiple titles, you can view the title of each movie. Depending on the disc, this function may either not work at all, or may work differently.



Program Playback

Use this function with video and music CDs to play the tracks in a particular order.

To Program Tracks in a particular order



DVD

1

Press the **Program** button.

2

Press the **Enter** button then use the **Number** buttons to select the desired title.

3

Press the **Enter** button, then use the **Number** buttons to select the desired chapter.

• You can use also just the **Left/Right** (◀/▶/▲/▼) button.

• You can use also just the **Left/Right** (◀/▶/▲/▼) button.



4

Press the **Enter** button.

• The selected track number is programming and the cursor moves to the next number.

5

At this time, you can continue programming if you want to.

• When programming more than 10 tracks, select **NEXT**↓ and then press the **Enter** button. The program selection screen where you can program up to 10 additional tracks appears.



To Playback the Tracks in the Programmed Order



Press the **Play/Pause** (▶||) button.

To Change the Program

DVD

1

Press the **Up/Down** (▲/▼) button to select the track number to be changed.

2

Press the **Enter** button to select the title or chapter to be changed.

3

Press the **Clear** button and then press the **Number** buttons.

• The cursor moves to the next number when the **Enter** button is pressed again.

• You can use also just the **Left/Right** (◀/▶) button.

4

Press the **Enter** button.

5

Repeat steps 1-4 above to change the program.

• The cursor moves to the number below.

To delete the entire Program

- Press the **Stop** (■) button twice during playback.
- Press the **Stop** (■) button once when in the Stop mode.
- Press the **Open/Close** (▲) button on the main unit. The disc tray will open and then close. The program will then be deleted.

When you have entered a wrong number



You can program or change particular tracks for VCD or CD discs in the same manner.

Press the **Clear** button.

- When you want to delete a selection during programming, select the track (or chapter, or title) to be deleted and then press the **Clear** button.

To Cancel the Programming

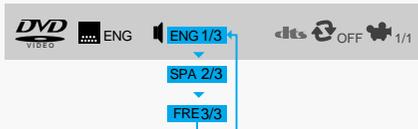
••• Press either the **Program** button or **Stop** (■) button.

Selecting the Audio Language/Subtitle Language

Selecting the Audio Language

Press the Audio button.

- Depending on the number of languages recorded on a DVD disc, a different audio language (ENGLISH, SPANISH, FRENCH, etc.) is selected each time the button is pressed.

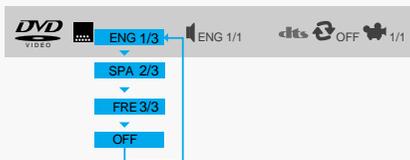


Note • Depending on the disc, DTS or DIGITAL PRO LOGIC can be selected.

Selecting the Subtitle Language

Press the Subtitle button.

- Depending on the number of languages recorded on a DVD disc, a different subtitle language (ENGLISH, SPANISH, FRENCH etc.) is selected each time the button is pressed.
- To make the subtitles disappear, select "OFF".



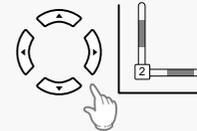
Note • If the word INVALID appears on the TV screen while buttons are being operated, that operation is not possible with that particular disc.
• Depending on the disc, the audio or subtitle language function may not work.

Various DVD Functions

To enlarge an image

Press the Zoom button.

- Images can be enlarged 2x and 4x.
- During DVD playback, press the **Zoom** button to zoom in 2X/4X/normal, in that order.
- Press **◀/▶/▲/▼** to move the enlarged portion you want to watch.

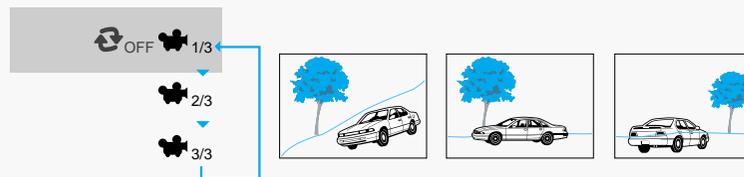


Note
• Only 2X zoom operation is possible during VCD playback.

Selecting the desired Screen Angle

Press the Angle button.

- This function only works with discs on which multiple angles have been recorded.
- During playback, press the **Angle** button to select the desired angle in 1/3, 2/3, 3/3, normal, in that order.



To move directly to a title, chapter, or time

1

Press the **Go To** button.

2

Press Number(0-9) button or the **Left/Right (◀/▶)** button.

- Each time the button is pressed, it repeats as shown below.
- Each time the buttons are pressed the desired scene is located and then played.
- Depending on the disc, the Title function may not work.



MP3 Playback

This system has a built-in MP3 decoder.
You can play back MP3 tracks (files) recorded on CD-Rs, CD-RWs, and CD-ROMs.

Starting Playback

- It is recommended you turn on your TV when playing back an MP3 disc.

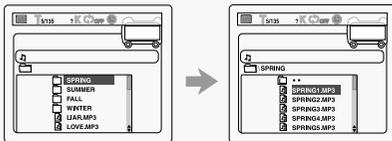
1

Press the **Open/Close** (▲) button to load a disc.

2

Press the **Play/Pause** (▶||) button.

- After detecting the disc, playback starts.
- The on-screen bar and the contents recorded on the MP3 disc will be shown on the TV if it is turned on.



1 : Disc type
DVD VCD VCD CD CD MP3

2 : Current track (file) and total number of the tracks on the disc
• Ex.: 1st track is playing out of 35 tracks recorded.

3 : Bit rate
• Ex.: Bit rate used for recording the loaded disc is 128 Kbps. (See below)

4 : Repeat mode indicator
• Ex.: When repeat mode is turned off.

5 : Elapsed playing time and the total playing time of the current track

6 : Sound indication
• Indicates sound input level. (Only appears during playback.)

To stop during playback

- Press the **Stop** (■) button.

What is MP3?

MP3 is an abbreviation of Motion Picture Experts Group (or MPEG) Audio Layer 3. MP3 is simply a file format with a data compression ratio of 1:10 (128 Kbps*). That means, by using MP3 format, one CD-R or CD-RW can contain 10 times as much data volume as a regular CD can.

*Bit rate is the average number of bits that one second of audio data will consume. The measuring unit used is Kbps (1000 bits per second).
To obtain better audio quality, choose a higher bit rate. The most popular bit rate for encoding (recording) is 128 Kbps.

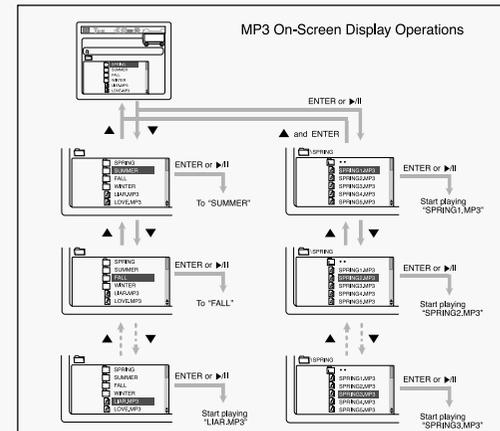
MP3 File Compatibility

- This system can only read MP3 files that are recorded in the format that is compliant with ISO 9660 Level 1 or Level 2.
- The system can read or play MP3 files only with the extension code — ".mp3".
- ID3*tags cannot be shown on the display.
- *An MP3 file can contain file information called "ID3 Tag" where its album name, performer, rack title, etc. are recorded.

Operations Using the On-Screen Display

Turn on your TV when playing back an MP3 disc.

When the loaded MP3 disc is recognized, the following on-screen display appears on the TV screen.
(The contents of this on-screen display vary according to the disc — the way MP3 tracks were recorded on the disc.)



| Button | To do |
|----------|--|
| ENTER, ▶ | Start playback or go into a directory. |
| ▲/▼ | Select a track or directory. |

CD-R/RW playback compatibility

- Your DVD player can also play CD-R and CD-RW discs recorded in digital audio format. When recording your own CD-R or CD-RW discs, make sure that the recording session is properly terminated, or they will not be playable. (Depending on disc properties and recording quality, some CD-R/RWs may not be playable.)
- CD-RW has a lower reflection rate than CD-R media and consequently it will take a longer time to read CD-R discs.
- CD-RW discs recorded at high speed tend to be difficult for the DVD player to read. If the recording speed for the CD-RW disc is not predetermined, write it at low speed.

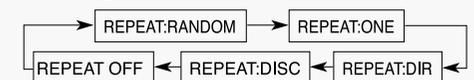
Repeating Playback

On an MP3 disc, Repeat A↔B cannot be used. You can enjoy only repeat play.

Press the Repeat button.

The indication corresponding to the selected mode appears on the TV screen.

- Each time you press the button, repeat mode changes as follows:



REPEAT:RANDOM

: All tracks recorded on the disc will be played once in random order.

REPEAT:ONE

: Current track will be repeated.

REPEAT:DIR

: Tracks in the current directory will be repeated.

REPEAT:DISC

: All tracks on the disc will be repeated.

REPEAT OFF

: Repeat play is canceled. (Normal play is resumed.)

System Setup

You can use the DVD player's Setup function to select the TV screen ratio, rating limit, or digital output mode.

To Set up the System

1

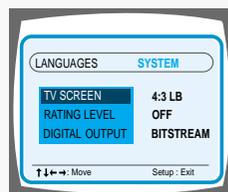
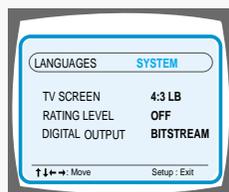
From the stop mode, press the **Setup** button.

2

Press the **Left/Right** (◀/▶) button to select the system.

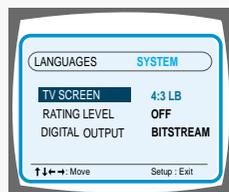
3

Press the **Up/Down** (▲/▼) button to select the desired item.



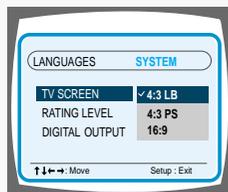
4

Press the **Enter** button or **Right** (▶) button.



5

Press the **Up/Down** (▲/▼) button to select the desired sub-item and then press the **Enter** button.



To End the System Setup

- Press the **Setup** button again.



TV SCREEN(TV SCREEN RATIO)

Select when you want to watch a 16:9 screen ratio DVD movie on a TV with a 4:3 ratio screen.



4:3LB

You can see the full 16:9 picture, but black bars will appear at the top and bottom of the screen.

4:3PS

You can only view the central portion of the 16:9 screen.

16:9

You can view in wide screen but the top and bottom of the picture will be cut off.

- If the movie is recorded in 4:3 ratio, you cannot view the full 16:9 picture with the above functions.

RATING LEVEL

The Rating Level function works in conjunction with DVDs which have been assigned a rating, to help control the type of DVD that your family watches.



- Select **RATING LEVEL**, then press the **Enter** button.

When the rating level password has been forgotten

While the player is in the stop mode, hold the **Stop** (■) button down on the main unit for more than 5 seconds.

- "INITIAL" appears on the display and all default settings will return to Factory Preset.
- Press the **Power** button.



- Use the number(0-9) buttons to input a **4-digit password**.

- The player's password is set to "7890" by default.



- Use the **Up/Down** (▲/▼) button to select either **RATING LEVEL** or **NEW PASSWORD**, and then press the **Enter** button.

- There are up to 8 rating levels on a disc.
- If LEVEL 6 is selected, a disc which contains rating LEVEL 7 and above cannot be played.
- If you select **NEW PASSWORD**, the screen changes and enables you to enter the new password.

Setting up the Language Features

Using the DVD player's Setup function, you can customize the Menu Language, Subtitle Language, and Disc Menu Language.

To set up the language feature

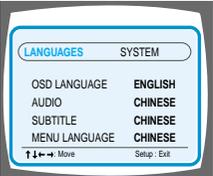
- Press the **Setup** button from the stop mode.


- Press the **Up/Down** (▲/▼) button to select the desired item.


- Press the **Enter** button or **Right** (▶) button.


- Press the **Up/Down** (▲/▼) button to select the desired language and then press the **Enter** button.









To End the Language Features Setup

- Press the **Setup** button again.



Controlling a TV with the Remote

The remote can also be set up to control most TVs. To program the remote, use the code that corresponds to your brand.

- Turn on the TV.
- Point the DVD's remote at the TV.
- While holding the **TV** button down, enter the code for your brand.

| Code | Brand | Code | Brand |
|------|--------------|------|------------|
| 01 | SAMSUNG 1 | 16 | SHARP 3 |
| 02 | SHARP 2 | 17 | ZENITH |
| 03 | SONY | 18 | LG 3 |
| 04 | MAGNAVOX | 19 | DAEWOO 8 |
| 05 | SANYO 1 | 20 | SANYO 2 |
| 06 | LG 2 | 21 | EMERSON |
| 07 | RCA | 22 | SHARP 3 |
| 08 | LG 1 | 23 | SAMSUNG 4 |
| 09 | TOSHIBA | 24 | MATSUSHITA |
| 10 | HITACHI | 25 | NOBLEX |
| 11 | JVC | 26 | TELEFUNKEN |
| 12 | PANASONIC 1 | 27 | NEWSAN |
| 13 | mitsubishi 2 | 28 | LOEWE |
| 14 | SAMSUNG 2 | 29 | RCA2 |
| 15 | SAMSUNG 3 | | |

example : For SAMSUNG 1TVs
While holding down the **TV** button, enter 0 + 1 .

- If the TV turns off, setup is complete.

Activating Dynamic Range Compression

You can enjoy a powerful sound even at a low volume level by compressing the dynamic range (difference between the maximum and minimum sounds).

From the remote control ONLY:

Press the **D.R.C** button.

- Each time you press the button, the dynamic range compression mode alternates between on and off. Select "D.R.C.ON" while watching the DVD at night. (You can obtain a powerful sound at a low volume.)
- This function takes effect only when Dolby Digital or DTS Digital Surround is activated.






- Note**
- If your TV does not switch from VIDEO mode to TV mode, press the **TV POWER** button twice.
 - The remote may not be able to control every model TV of the brands listed.

Speaker Setup

Setting up Speaker Mode and Delay Time

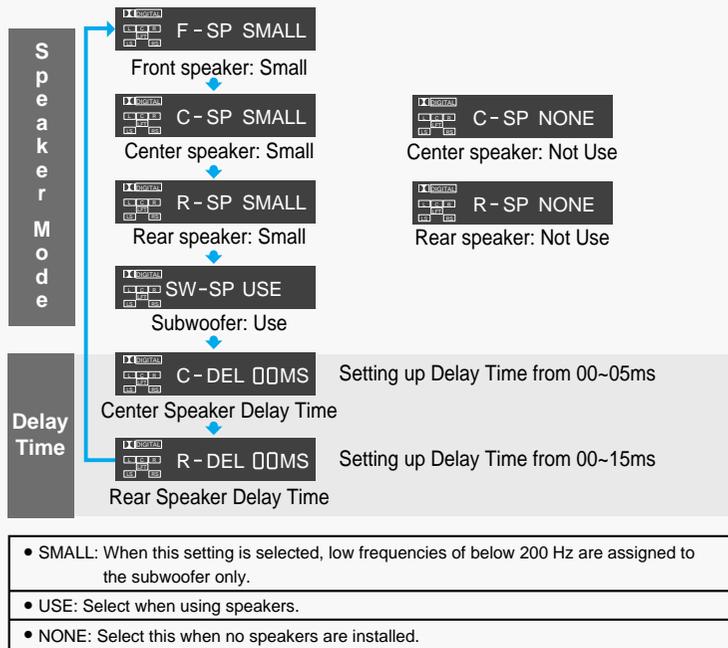
1

Press the SPK Mode button.

2

Press the Left/Right (◀ / ▶) button to select the desired item.

- Each time the button is pressed, a different mode selection is displayed on the front panel display as shown below.



Note

The display changes depending on the current audio output mode (DSP, PRO LOGIC, 3-STEREO, STEREO, etc.).

To set the delay time

When 5.1 Channel Surround Sound is played, you can enjoy the best sound if the distance between you and each speaker is the same. You can set Delay Time in the Center/Rear Speaker to customize the sound to the acoustics of your room.

Setting Center Speaker

If the distance of Dc is equal to or longer than the distance of Df in the figure, set the mode as 0ms. Otherwise, change the setting according to the table on the table.

Setting Rear Speakers

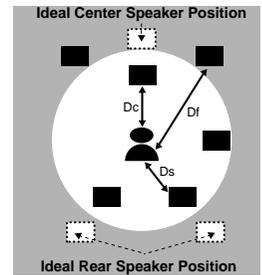
If the distance of Df is equal to the distance of Ds in the figure, set the mode as 0ms. Otherwise, change the setting according to the table.

(A)=Df-Dc

| Distance of (A) | Value(ms) |
|-----------------|-----------|
| 50 | 1.3 |
| 100 | 2.6 |
| 150 | 3.9 |
| 200 | 5.3 |

(B)=Df-Ds

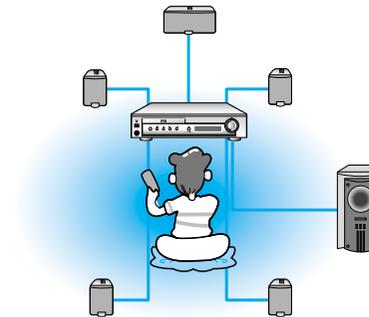
| Distance of (B) | Value(ms) |
|-----------------|-----------|
| 200 | 5.3 |
| 400 | 10.6 |
| 600 | 15.9 |



Arrange all speakers within a circle as shown in the figure.

Dc: Distance from center speaker to listening position
 Df: Distance from front speakers to listening position
 Ds: Distance from rear speakers to listening position

Speaker Setting Methods



Front Speakers

Set the front speakers so that their tweeters (high-range) are aligned at about ear level and at a horizontal angle of 45° to the prime listening position.

Center Speaker

Ideally the center speaker should be positioned with its top surface flush with the front speakers. However, you may place the speaker either on top or near the bottom of your TV set.

Rear Speakers

Set the rear speakers further back parallel to the walls, at 60 to 90 centimeters (2 to 3 feet) above prime listening position ear level.

If the space behind the listening position is insufficient (i.e., too close to the wall), place the rear speakers facing each other on either side.

Subwoofer Speaker

Place the subwoofer at any convenient location within the vicinity of the listening position.

Speaker Setup

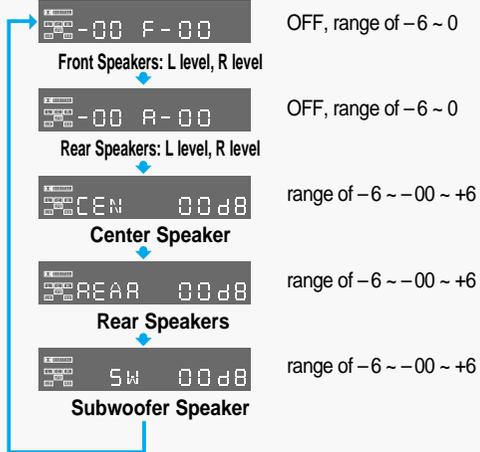
To set up Speaker Balance

1

Press the **Sound Edit** button.

- Each time the button is pressed the selection switches as shown below.

Example: 5.1CH Sound Setup



Note The display changes depending on the current audio output mode (DSP, PRO LOGIC, 3-STEREO, STEREO, etc.).

Speaker Setting Methods

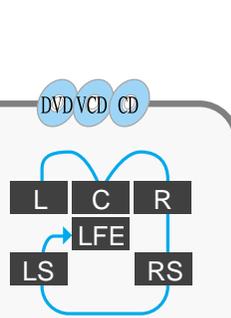
Press the **Test Tone** button.

- The test signal will be sent to the Left Front, Center, Right Front, Right Rear, Left Rear and Subwoofer in that order.

To End the Language Features Setup

- Press the **Test Tone** button again.

Note While in DSP or PRO LOGIC mode, TEST TONE may operate differently for VCDs or CDs.



Creating Realistic Sound Fields

You can use the following surround to reproduce a realistic sound field.

- Digital Multichannel Surround —Dolby Digital and DTS Digital Surround
- Dolby Pro Logic II

Dolby Digital and DTS Digital Surround

To enjoy surround effectively, all the speakers need to be connected and activated.

Dolby Digital

Used to reproduce multichannel sound tracks of the software encoded with Dolby Digital ().

Dolby Digital encoding method (discrete 5.1 channel digital audio format) records and digitally compresses the left front channel, right front channel, center channel, left rear channel, right rear channel, and LFE channel signals (total 6 channels, but LFE channel is counted as 0.1 channel. Therefore, LFE is called the 5.1 channel).

In addition, Dolby Digital enables stereo rear sounds, and sets the cutoff frequency of the rear treble at 20 kHz, compared to 7 kHz for Dolby Pro Logic. These facts result in better sound quality than Dolby Pro Logic.

When the system detects Dolby Digital signals, the DOLBY DIGITAL indicator lights up on the display.

DTS Digital Surround

Used to reproduce multichannel sound tracks of the software encoded with DTS Digital Surround ().

DTS Digital Surround is another discrete 5.1 channel digital audio format available on CD, LD, and DVD software.

Compared to Dolby Digital, audio compression rate is relatively low.

This fact allows DTS Digital Surround format to add breadth and depth to the reproduced sounds. As a result, DTS Digital Surround features natural, solid and clear sound.

When the system detects DTS Digital Surround signals, the DTS indicator lights up on the display.

Dolby Pro Logic II

- Dolby Pro-Logic II is a new multi-channel playback format developed by Dolby Laboratories using feedback logic steering technology and offering improvements over conventional Dolby Pro Logic circuits.

- Dolby Pro Logic II can be used to decode not only sources recorded in Dolby Surround () but also regular stereo sources into five channels (front left, front right, center, surround left and surround right) to achieve surround sound.

- Whereas with conventional Dolby Pro Logic the surround channel playback frequency band was limited, Dolby Pro Logic II offers a wider band range.

In addition, the surround channels were monaural (the surround left and right channels were the same) with previous Dolby Pro Logic, but with Dolby Pro Logic II they are stereo.

* Sources recorded in Dolby Surround

These are sources in which three or more channels of surround have been recorded as two channels of signals using Dolby Surround encoding technology.

Dolby Surround is used for the sound tracks of movies recorded on DVDs, LDs and video cassettes to be played on stereo VCRs, as well as for the stereo broadcast signals of FM radio, TV, satellite broadcasts and cable TV.

Decoding these signals with Dolby Pro Logic makes it possible to achieve multi-channel surround playback.

The signals can also be played on ordinary stereo equipment, in which case they provide normal stereo sound.

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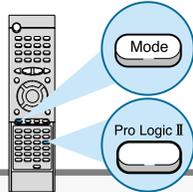
Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942 and other world-wide patents issued and pending. "DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc. ©1996 Digital Theater Systems, Inc. All rights reserved.



Dolby Pro Logic II decoder



Dolby Pro Logic II



Dolby Pro Logic II is a new format for playing multichannel audio signals that offers improvements over conventional Dolby Pro Logic. It can be used to decode not only sources recorded in Dolby Surround, but also regular stereo sources into five channels (front left/right, center and surround left/right). In addition, various parameters can be set according to the type of source and the contents, so you can adjust the sound field with greater precision.

1

Press the **Function** button to select the desired function.

- Select from FM, AM, DVD and AUX.

2

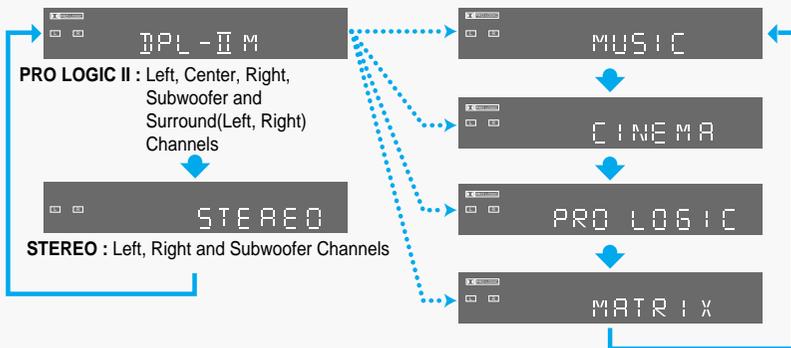
Press the **Pro Logic II** button.

- Each time the **Pro Logic II** button is pressed.

3

Press the **DSP/DPL II Mode** button.

- Each time the **DSP/DPL II Mode** button is pressed.



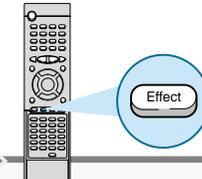
Pro Logic II Mode

Select one of the modes (“MUSIC”, “CINEMA”, “PRO LOGIC” or “MATRIX”).

- The Music mode is recommended when listening to CDs or watching DVDs with mostly musical content.
- The Cinema mode is best when watching movies.
- The Pro Logic mode offers the same surround processing as original Pro Logic and is best used when the source contents are not of optimum quality.
- The Matrix mode is useful for when the audio is mono.



Dolby Pro Logic II Effect Function



This function works only in the DPL II M (Dolby Pro Logic II Music) Mode.

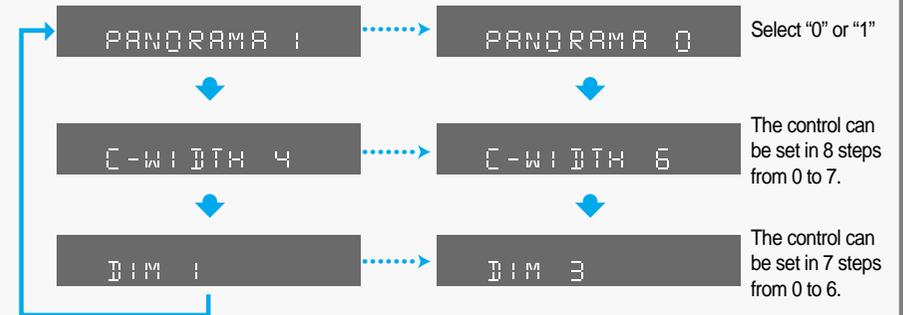
1

Press the **DSP/DPL II Effect** button.

2

Use the **Left/Right** (◀/▶) button to make adjustments.

- Each time the **DSP/DPL II Effect** button is pressed.



• Panorama Mode

This mode extends the front stereo image to include the surround speakers for an exciting “wraparound” effect with side wall imaging.

• Center Width Control

This control adjusts the center image so it may be heard only from the center speaker; only from the left/right speakers as a phantom image; or from all three front speakers to varying degrees.

• Dimension Control

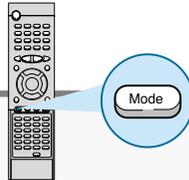
This control gradually adjusts the soundfield either towards the front or towards the rear.



- When playing a DVD encoded in two or more channels, DOLBY PRO LOGIC II mode cannot be selected.

DSP (Digital Signal Processor) Modes

DSP modes have been designed to simulate different acoustic environments. The sound heard in a hall, theater, pavilion, dance club, or live club consists of direct and indirect sound —early reflections and reflections from behind. Direct sounds reach the listener directly without any reflection. Indirect sounds are delayed by the distance of the ceiling and walls. These indirect sounds are an important element of the acoustic surround effect.



Press the DSP/DPLII Mode button.

- The following DSP modes are provided with this unit:

HALL : Provides a clear vocal and simulates the feeling of a concert hall.

THEATER : Simulates the feeling of a theater.

PAVILION : Simulates the spacious feeling of a pavilion with a high ceiling.

DANCE CLUB : Simulates the sound of a dance club with a throbbing bass beat.

LIVE CLUB : Simulates the feeling of a live music club with a low ceiling.

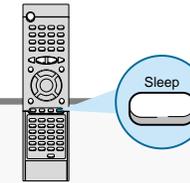
- These DSP modes can be used to add acoustic surround effects while reproducing stereo analog or linear PCM digital signals.
- When one of the DSP modes is selected, the DSP indicator lights up on the display.

DSP modes available according to the input signal format

O : Possible, X : Not possible

| Surround | Multichannel Surround | DSP | | | | | (canceled) |
|---------------------|-----------------------|------|---------|----------|------------|-----------|------------|
| | | HALL | THEATER | PAVILION | DANCE CLUB | LIVE CLUB | STEREO |
| Input Signal format | Analog | X | O | O | O | O | O |
| | Linear PCM | X | O | O | O | O | O |
| | Dolby Digital | O | X | X | X | X | X |
| | DTS | O | X | X | X | X | X |

Sleep Function



To set up Sleep

Press the Sleep button.

- Each time the button is pressed the selection toggles as follows: SLEEP 10 → SLEEP 20 → SLEEP 30 → SLEEP 60 → SLEEP 90 → SLEEP 120 → SLEEP 150 → OFF.

What is the Sleep function?
You can set the delay time so that the unit powers off automatically after a preset period of time.

To Review Sleep Setting

- The remaining time for the selected Sleep time is displayed.
- Pressing the button once again changes the Sleep time from the last setting.

Listening to the Radio

You can listen to the chosen band (FM, MW or LW broadcast stations) by using either the automatic tuning or manual tuning operation.



Remote Control Unit

1

Press the **Tuner(Band)** button.

- The selection toggles back and forth between "FM" "MW" and "LW" each time the **Tuner(Band)** button is pressed.

2

Select a broadcast station.

Auto Station 1 When the **I◀▶▶▶I** button is pressed, a preset broadcast station is selected.

Auto Station 2 Hold in the **I◀▶▶▶I** button. Automatic searching begins, and then stops when a station is tuned in.

Manual Station Press the **I◀▶▶▶I** button to tune to the chosen station. The frequency changes incrementally in either direction each time the corresponding button is pressed.

1

Press the **Function** button to select the desired band (FM, MW or LW).

2

Select a broadcast station.

Auto Station 1 Press the **Stop (■)** button to select the PRESET mode. Then press the **I◀▶▶▶I** button to select a station stored in the preset

Auto Station 2 Press the **Stop (■)** button to select the MANUAL mode on the front panel. Then hold in the **I◀▶▶▶I** button to make the unit begin automaticall searching for broadcast stations.

Manual Station Press the **Stop (■)** button to select the MANUAL mode front panel. Press the **I◀▶▶▶I** button to tune to the desired station. The frequency changes incrementally in either direction each time the corresponding button is pressed.

To Listen in Mono/Stereo



Press the MO/ST button. (only FM)

- The selection toggles back and forth between "STEREO" and "MONO" each time the **MO/ST** button is pressed.
- In a poor reception areas, select Mono mode for a clear, interference-free broadcast.

Presetting stations

You can store up to:

- 15 FM stations
- 8 MW stations
- 7 LW stations

- FM** Frequency Modulation
- AM(MW)** Medium Wave
- LW** Long Wave



Example: Presetting FM 89.1 in the memory

1

Press the **Tuner(Band)** button and select the FM band.

2

Select the **MANUAL** by pressing the **Stop (■)** button on the main unit.

3

Use the **◀▶** and **▶▶** button to tune into 89.1

- The selection toggles back and forth between "FM → AM(MW) → LW" each time the **Tuner(Band)** button is pressed.



4

Press the **Program** button on the remote control, FM1 will flash. If you want to save 89.1 to FM1, press Program again.

5

If you want to save 89.1 to another preset location(FM2~FM15), press **I◀▶** or **▶▶I**, then press **Program** to save it to that location.

6

To preset other stations, follow steps 1~4 again.



To store other Channels

Follow steps 3~5 again.

To tune in a preset station

See the previous page.



About RDS broadcasting

Using the RDS (Radio Data System) to receive FM stations

RDS allows FM stations to send an additional signal along with their regular program signals. For example, the stations send their station names, as well as information about what type of program they broadcast, such as sports or music, etc.

When tuned to an FM station which provides the RDS service, the RDS indicator lights up on the display.

- Description on RDS function
 1. **PTY (Program Type)** : Displays the type of programme currently being broadcast
 2. **PS NAME (Program Service Name)** : Indicates the name of broadcasting station and is composed of 8 characters.
 3. **RT (Radio Text)** : Decodes the text broadcast by a station (if any) and is composed of maximum 64 characters.
 4. **CT (Clock Time)** : Decodes the real time clock from the FM frequency.
 - Some stations may not transmit PTY, RT or CT information therefore this may not be displayed in all cases.
 5. **TA (Traffic Announcement)** : When this symbol flashes it shows that the traffic announcement is in progress.

- Note**
- RDS is not available for MW/LW broadcasts.
 - RDS may not operate correctly if the station tuned is not transmitting RDS signal properly or if the signal strength is weak.

What information can RDS signals provide?

You can see the RDS signals the station sends on the display.

TO show the RDS signals

Press RDS DISPLAY while listening to an FM station.

Each time you press the button, the display change to show you the following information:

→ PS NAME → PTY → RT → CT → Frequency

PS (Program Service) : While searching, "PS" appears and then the station names will be displayed. "NO PS" appears if no signal is sent.

PTY (Program Type) : while searching, "PTY" appears and then the type of the broadcast program will be displayed. "NO PTY" appears if no signal is sent.

RT (Radio Text) : while searching, "RT" appears and then text messages the station sends will be displayed. "NO RT" appears if no signal is sent.

Frequency : station frequency (non-RDS service)

About characters shown in the display

When the display shows PS, PTY, or RT signals, the following characters are used.

- The display window cannot differentiate upper case and lower case letters and always uses upper case letters.
- The display window cannot show accented letters, "A," for instance, may stand for accented "A's" like "Å, Ä, Å, Å and Ä."

- Note**
- If searching finishes at once, "PS", "PTY", and "RT" will not appear on the display.

PTY (Program Type) indication and PTY-SEARCH function

One of the advantages of the RDS service is that you can locate a particular kind of program from the preset channels by specifying the PTY codes.

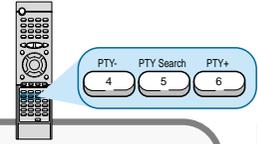
To search for a program using the PTY codes

Before you start, remember...

- The PTY Search is only applicable to preset stations.
- To stop searching any time during the process, press PTY SEARCH while searching.
- There is a time limit in doing the following steps. If the setting is cancelled before you finish, start from step 1 again.
- When pressing the buttons on the primary remote control, make sure that you have selected the FM station using the primary remote control.

- 1 Press PTY SEARCH while listening to an FM station.
- 2 Press and hold PTY- or PTY+ until the PTY code you want appears on the display window, while "PTY SELECT" is flashing.
 - The display gives you the PTY codes described to the right.
- 3 Press PTY SEARCH again, while the PTY code selected in the previous step is still on the display.
 - The center unit searches 15 preset FM stations, stops when it finds the one you have selected, and tunes in that station.

| Display | Program Type |
|------------|---|
| NEWS | • News including an announced opinion and report |
| AFFAIRS | • Several matters including a current incident, documentary, discussion and analysis. |
| INFO | • Information including weights and measures, returns and forecast, matters interesting the customer, medical information, etc. |
| SPORT | • Sports |
| EDUCATE | • Education |
| DRAMA | • Drama-Radio serial, etc. |
| CULTURE | • Culture-National or local culture including the religious problem, social science, language, theater, etc. |
| SCIENCE | • Natural science and technology |
| VARIED | • Others-Speech, amusing program (quiz, game), interview, comedy and satirical play, etc. |
| POP M | • Pop music |
| ROCK M | • Rock music |
| LIGHT M | • Light classical music- Classical music and instrumental and chorus music |
| CLASSIC | • Heavy classical music-Orchestra music, symphony, chamber music and opera |
| OTHER M | • Other music - Jazz, R&B country music |
| WEATHER | • Weather |
| FINANCE | • Finance |
| CHILDREN | • Children's programmes |
| SOCIAL A | • Social affairs |
| RELIGION | • Religion |
| PHONE IN | • Phone in |
| TRAVEL | • Travel |
| LEISURE | • Leisure |
| JAZZ | • Jazz Music |
| COUNTRY | • Country Music |
| NATIONAL M | • National Music |
| OLDIES | • Oldies Music |
| FOLK M | • Folk Music |
| DOCUMENT | • Documentary |





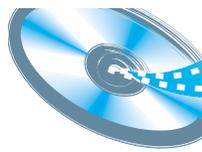
Troubleshooting

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| Problem | Check |
|---|--|
| The disc tray does not open. | <ul style="list-style-type: none"> • Is the disc installed with the label side facing up? • Is the power cord plugged securely into the power outlet? • Turn off the power to the unit by pressing the Power (⏻) button and turn it back on. |
| Disc does not play. | <ul style="list-style-type: none"> • Check the region number of the DVD. • DVD discs purchased abroad may not be playable. • This player cannot play CD-ROMs, DVD-ROMs, etc. • Check the rating level of the DVD. |
| Playback does not start immediately when the Play/Pause button is pressed. | <ul style="list-style-type: none"> • Check whether the disc has any scratch marks or is deformed? |
| No sound is produced. | <ul style="list-style-type: none"> • No sound is heard during high-speed playback, slow playback, and step motion playback modes. • Are the speakers properly connected? Is the speaker Setup correctly customized? • Is the disc severely damaged? The disc may be dirty. Wipe off fingerprints or dirt. |
| Sound can be heard only from a few speakers and not all six. | <ul style="list-style-type: none"> • When listening to a CD or radio, sound is output to the front speakers only (L/R). Select the "PRO LOGIC" option by pressing the Pro Logic button on the remote control unit to use all six speakers. • Check whether your DVD disc is 5.1 CH compatible. |
| Picture does not appear; sound is not produced; the disc tray opens 2-5 seconds later. | <ul style="list-style-type: none"> • Was the player moved suddenly from a cold place to a warm one? When condensation forms inside the player, remove the disc and let the player stand for 1 or 2 hours with the power on. (You can use the player after the condensation disappears.) |
| Sound quality is irregular. | <ul style="list-style-type: none"> • Are the speaker cables loose? • Is there any dirt or debris at the end of the speaker connector? |
| Dolby Digital 5.1 Channel Surround Sound is not being reproduced. | <ul style="list-style-type: none"> • Does the disc being played show the "Dolby Digital 5.1CH" mark ? 5.1-channel sound is reproduced only if the disc is recorded with 5.1 channel sound. • Is the DVD player connected to the proper speakers? |

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| Problem | Check |
|--|---|
| <ul style="list-style-type: none"> • The disc revolves but no picture appears. • Picture shows interference and quality is poor. | <ul style="list-style-type: none"> • Is the TV power turned on? • Are the video cables properly connected? • Is it the player in PAUSE mode? • Is your TV's video format (NTSC/PAL) set correctly? Press the NTSC/PAL button once again to change the current selection. • Is there any dirt on the disc, or is the disc damaged? • It may not be possible to play some DVD discs due to poor manufacture. • When a dark scene changes to a bright scene during playback, the screen may flicker vertically. Some disturbance is normal. |
| Remote control unit does not operate. | <ul style="list-style-type: none"> • Is the remote control being used within the appropriate distance and angle of operation for the unit? • Are there any obstacles between the remote control unit and the remote control sensor? • Are the batteries dead? Is it time to replace the batteries with new ones? |
| Audio or subtitle language does not operate. | <ul style="list-style-type: none"> • The audio or subtitle language features does not operate with DVDs that do not include multiple audio or subtitle languages. |
| The Menu button is pressed but the Menu screen does not appear. | <ul style="list-style-type: none"> • Is the remote control being used within the appropriate distance and angle of operation for the unit? • Are the batteries dead? • Does the disc have a Menu? |
| The screen ratio cannot be changed. | <ul style="list-style-type: none"> • You can play 16:9 wide DVDs in 16:9 WIDE mode or 4:3 LETTER BOX mode or 4:3 PAN-SCAN mode; but 4:3 encoded DVDs only show in 4:3 ratio. Refer to the DVD disc jacket and then select the appropriate function. |
| The desired radio station cannot be tuned in. | <ul style="list-style-type: none"> • Is the antenna installed properly? • When the antenna's input signal is weak, install an external FM antenna in an area with good reception quality. |
| The system is malfunctioning (the system does not work or no sound). | <ul style="list-style-type: none"> • While the player is in the stop mode, hold the Stop (■) button down on the main unit for over 5 seconds. "INITIAL" appears on the display and all settings will return to the Factory Preset condition. The RESET function erases all settings; do not use this function unless necessary. |



Cautions on Handling and Storing Discs

Small scratches on the disc may reduce sound and picture quality or cause breaks in playback. Be especially careful not to scratch discs when handling them.

Handling and Storing Discs



When you get fingerprints or dirt on the disc, clean it with a mild detergent diluted in water and wipe with a soft cloth.

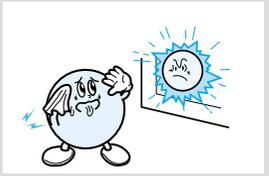
- When cleaning, wipe gently from the inside to the outside of the disc.



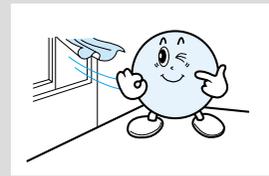
Condensation may form if warm air comes into contact with cold parts inside the player. When condensation forms inside the player, the player may not operate correctly. If this occurs, remove the disc and let the player stand for 1 or 2 hours with the power on.

Disc Storage

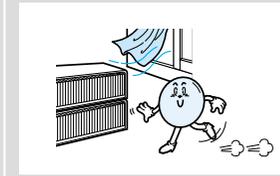
Do not keep in direct sunlight



Keep in a cool ventilated area



Keep in a clean Protection jacket. Store vertically.



- Do not allow the discs to become contaminated with dirt.
- Do not load cracked discs or discs that are scratched.



Disc Type and Protection

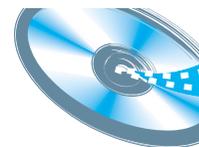
Usable Discs

| Disc Types | Marks | Recording Types | Disc Size | Max. Playing Time |
|------------|-------|-----------------|-----------|--|
| DVD | | Audio + Video | 12cm | Approx. 240 min. (Single-sided) Approx. 480 min. (Double-sided) |
| | | | 8cm | Approx. 80 min. (Single-sided) Approx. 160 min. (Double-sided) |
| VIDEO-CD | | Audio + Video | 12cm | 74 min. |
| | | | 8cm | 20 min. |
| AUDIO-CD | | Audio | 12cm | 74 min. |
| | | | 8cm | 20 min. |

| | | | | | |
|--------------------|----------|--------------------|-------------|---|----------|
| | | | | | |
| Dolby Digital disc | DTS Disc | Digital Audio disc | Stereo disc | NTSC broadcast system in USA, Canada, Japan, South Korea, etc.. | MP3 disc |



Specification



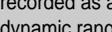
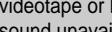
Reference

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|-----------------------------------|-----------------------------|---------------------------------------|-----------------------|-----------------------|
| GENERAL | Power Consumption | 120W | | |
| | Weight | 6.5Kg | | |
| | Dimensions (W x H x D) | 370mm x 80mm x 300mm | | |
| | Operating Temperature Range | +5°C~+35°C | | |
| | Operating Humidity Range | 10%~75% | | |
| FUNCTION | Usable Sensitivity | 10dB | | |
| | S/N Ratio | 60dB | | |
| | Distortion | 0.5% | | |
| AMTUNER | Usable Sensitivity | 54dB | | |
| | S/N Ratio | 40dB | | |
| | Distortion | 2% | | |
| VIDEO OUTPUT | Composite Video | 1.0Vp-p(75Ω load) | | |
| | Scart Jack | Compositive Video : 1.0Vp-p(75Ω load) | | |
| | | Luminance signal : 1.0Vp-p(75Ω load) | | |
| | | Color Signal : 0.286Vp-p(75Ω load) | | |
| | S-VIDEO | Luminance Signal: 1.0Vp-p(75Ω load) | | |
| Color Signal: 0.286Vp-p(75Ω load) | | | | |
| AMPLIFIER | Front speaker output | 40W x 2(6Ω) | | |
| | Center speaker output | 40W(6Ω) | | |
| | Rear speaker output | 40W x 2(6Ω) | | |
| | Subwoofer speaker output | 70W(3Ω) | | |
| | Frequency range | 20Hz~25KHz | | |
| | S/N Ratio | 75dB | | |
| | Channel separation | 50dB | | |
| | Input sensitivity | (AUX)500mV | | |
| SPEAKER | Speaker system | 5.1ch speaker system | | |
| | | Front/Center/Rear speaker | Subwoofer speaker | |
| | Impedance | 6Ω x 5 | 3Ω | |
| | Frequency range | 150Hz~18KHz | 45Hz~250Hz | |
| | Output sound pressure level | 87dB/W/M | 86dB/W/M | |
| | Rated input | 40W | 70W | |
| | Maximum input | 80W | 140W | |
| | Dimensions (W x H x D) | Front/Rear | 103mm x 150mm x 120mm | 250mm x 403mm x 335mm |
| | | Center | 197mm x 103mm x 120mm | |
| | Weights | Front/Rear | 0.73Kg | 6.8Kg |
| Center | | 0.80Kg | | |

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Note on Terminology

| | |
|---|---|
| ANGLE | Recorded onto some DVD discs are scenes which have been simultaneously shot from a number of different angles (the same scene is shot from the front, from the left, from the right, etc.). With such discs, the Angle button can be used to change the angle of view for specific scenes. |
| CHAPTER NUMBER | These numbers are recorded on DVD discs. A Title is subdivided into many sections, each of which is numbered, and specific parts of the video can be searched quickly using these numbers. |
| DVD | A high-density optical disc on which high-quality pictures and sound have been recorded by means of digital signals. Incorporating a new video compression technology (MPEG-2) and high-density recording technology, a DVD disc comprises two 0.6 mm thick discs bonded together. |
| PCM | An acronym for Pulse Code Modulation - another name for digital audio. |
| PBC (PLAYBACK CONTROL) | This is recorded on a video CD (version 2.0). Selected scenes or information can be chosen from the menu displayed on the TV monitor. |
| REGION NUMBER | Both the DVD player and DVD discs are encoded with a region number. If the region number on the DVD disc does not correspond to the region number of the DVD player, the player cannot play the disc. |
| SUBTITLES | Translated appearing at the bottom of the screen. A DVD disc can contain up to 32 subtitle languages. |
| TITLE NUMBER | These numbers are recorded on DVD discs. When a disc contains two or more movies, these movies are numbered as Title 1, Title 2, etc. |
| TRACK NUMBER | These numbers are assigned to the tracks which are recorded on video and audio CDs. They enable specific tracks to be located quickly. |
| VIDEO CD | Contains recordings of pictures and sound whose quality is roughly comparable to that of video tape. This player also supports video CDs with playback control (version 2.0). |
|  | You can enjoy 5.1 (or 6) channels of high fidelity digital sound from various digital input sources such as laser discs, DVD, CD etc. DTS provides a realistic, clear surround sound that has not previously been available from conventional surround sound. |
|  | 5.1 (or 6) Channel Digital Surround sound reproduced from DVDs and LDs recorded as a digital signals (with  disc marking). With better sound quality, dynamic range, and directionality than the traditional Dolby surround technology, you can enjoy the dynamic realistic sound. |
|  | A 4 channel analog sound reproduced from a program source such as a videotape or LD with the  mark. You can enjoy a more realistic, robust sound unavailable from regular stereo sources. |