

DAW-X1

DVD Home Theatre System Operating Instructions

S-FORCE
PRO
FRONT SURROUND

S-master
Digital Amplifier

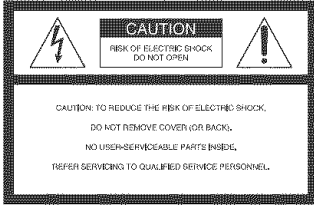
HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Caution – The use of optical instruments with this product will increase eye hazard.

For the customers in the U.S.A



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Owner's Record

The model and serial numbers are located at the bottom of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. DAV-X1

Serial No. _____

WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna (aerial).
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note to CATV system installer:

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

For the customers in Canada CAUTION

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

Precautions

Safety

- If anything falls into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet (mains), even if the unit itself has been turned off.
- Unplug the unit from the wall outlet (mains) if you do not intend to use it for an extended period of time. To disconnect the cord, pull it out by the plug, never by the cord.

Installing

- Allow adequate air circulation to prevent internal heat buildup.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- Do not install the unit near heat sources such as radiators, or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.
- Do not install the unit in an inclined position. It is designed to be operated in a horizontal position only.

- Keep the unit and discs away from equipment with strong magnets, such as microwave ovens, or large loudspeakers.
- Do not place heavy objects on the unit.
- If the unit is brought directly from a cold to a warm location, moisture may condense inside the DVD Home Theatre System and cause damage to the lenses. When you first install the unit, or when you move it from a cold to a warm location, wait for about 30 minutes before operating the unit.
- Do not place the system in confined space such as a bookshelf or similar unit.



ENERGY STAR[®] is a U.S. registered mark.

As an ENERGY STAR[®] partner, Sony Corporation has determined that this product meets the ENERGY STAR[®] guidelines for energy efficiency.

Welcome!

Thank you for purchasing Sony DVD Home Theatre System. Before operating this system, please read this manual thoroughly and retain it for future reference.

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About This Manual

- The instructions in this manual describe the controls on the remote. You can also use the controls on the system if they have the same or similar names as those on the remote.
- The Control Menu items may be different depending on the area.
- “DVD” may be used as a general term for DVD VIDEOS, DVD+RWs/DVD+Rs, and DVD-RWs/DVD-Rs.
- Measurements are expressed in feet (ft) for North American models.
- The following symbols are used in this manual.

Symbol	Meaning
	Functions available for DVD VIDEOS, DVD-Rs/DVD-RWs in video mode, and DVD+Rs/DVD+RWs
	Functions available for DVD-RWs in VR (Video Recording) mode
	Functions available for VIDEO CDs (including Super VCDs or CD-Rs/CD-RWs in video CD format or Super VCD format)
	Functions available for Super Audio CDs
	Functions available for music CDs or CD-Rs/CD-RWs in music CD format
	Functions available for DATA CDs (CD-ROMs/CD-Rs/CD-RWs containing MP3* audio tracks and JPEG image files)

* MP3 (MPEG1 Audio Layer 3) is a standard format defined by ISO/MPEG which compresses audio data.

This System Can Play the Following Discs

Format of discs	Disc logo
DVD VIDEO	
DVD-RW	
VIDEO CD	
Super Audio CD* ¹	 SUPER AUDIO CD
Audio CD* ²	
CD-R/CD-RW (audio data) (MP3 files) (JPEG files)	   

The “DVD VIDEO” logo and “DVD-RW” logo are trademarks.

*¹ Except for multi-channel playback area.

*² CD text data can be displayed (album title only).

Note about CDs

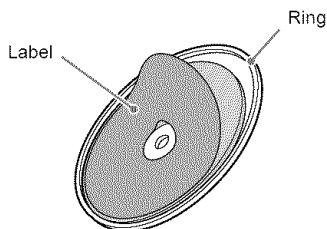
The system can play CD-ROMs/CD-Rs/CD-RWs recorded in the following formats:

- audio CD format
- video CD format
- MP3 audio tracks and JPEG image files of format conforming to ISO 9660 Level 1/Level 2, or its extended format, Joliet

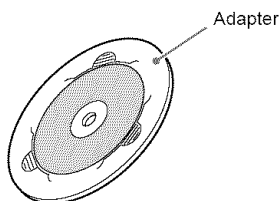
Example of discs that the system cannot play

The system cannot play the following discs:

- CD-ROMs/CD-Rs/CD-RWs other than those recorded in the formats listed on page 6
- CD-ROMs recorded in PHOTO CD format
- Data part of CD-Extras
- DVD Audios
- DVD-RAMs
- A DVD VIDEO with a different region code (page 8, 89).
- A disc that has a non-standard shape (e.g., card shaped, heart shaped).
- A disc that has a commercially available accessory attached, such as a label or ring.



- An adapter to convert an 8 cm disc to standard size.



- A disc with paper or stickers on it.
- A disc that has the adhesive of cellophane tape or a sticker still left on it.

Notes about CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW

In some cases, CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW cannot be played on this system due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software.

The disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.

Note that discs created in the Packet Write format cannot be played.

Music discs encoded with copyright protection technologies

This product is designed to play back discs that conform to the Compact Disc (CD) standard.

Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product.

Note on DualDisc

A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. However, since the audio material side does not conform to the Compact Disc (CD) standard, playback on this product is not guaranteed.

Note about DVD-RW (Except for U.S./Canadian/European models)

Images in DVD-RWs with CPRM* protection may not be played if they contain a copy protection signal.

Copyright lock appears on the screen.

* CPRM (Content Protection for Recordable Media) is a coding technology that protects the copyright of images.

Note on PBC (Playback Control) (VIDEO CDs)

This system conforms to Ver. 1.1 and Ver. 2.0 of VIDEO CD standards. You can enjoy two kinds of playback depending on the disc type.

Disc type	You can
VIDEO CDs without PBC functions (Ver. 1.1 discs)	Enjoy video playback (moving pictures) as well as music.
VIDEO CDs with PBC functions (Ver. 2.0 discs)	Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver. 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

continued

About Multi Session CD

- This system can play Multi Session CDs when an MP3 audio track is contained in the first session. Any subsequent MP3 audio tracks recorded in later sessions can also be played back.
- This system can play Multi Session CDs when a JPEG image file is contained in the first session. Any subsequent JPEG image files recorded in later sessions can also be played back.
- If audio tracks and images in music CD format or video CD format are recorded in the first session, only the first session will be played back.

About the Super Audio CD

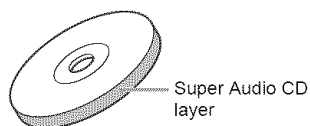
Super Audio CD is a new high-quality audio disc standard where music is recorded in the DSD (Direct Stream Digital) format (conventional CDs are recorded in the PCM format). The DSD format, using a sampling frequency 64 times higher than that of a conventional CD, and with 1-bit quantization, achieves both a wide frequency range and a wide dynamic range across the audible frequency range, and so provides music reproduction extremely faithful to the original sound.

Types of Super Audio CDs

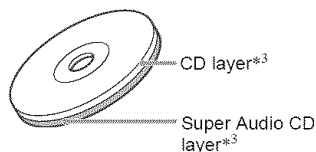
There are two types of discs, depending on the Super Audio CD layer and CD layer combination.

- Super Audio CD layer: A high-density signal layer for Super Audio CD
- CD layer*¹: A layer that is readable by a conventional CD player

Single layer disc
(a disc with a single Super Audio CD layer)



Hybrid disc*²
(a disc with an Super Audio CD layer and a CD layer)




*1 You can play the CD layer on a conventional CD player.

*2 Since both layers are on one side, it is not necessary to turn the disc over.

*3 To select a layer, see “Selecting a Playback layer for a Super Audio CD” (page 44).

Region code

Your system has a region code printed on the back of the unit and will only play DVDs labeled with the same region code. DVD VIDEOS labeled  will also play on this system.

If you try to play any other DVD VIDEO, the message [Playback prohibited by area limitations.] will appear on the TV screen. Depending on the DVD VIDEO, no region code indication may be given even though playing the DVD VIDEO is prohibited by area restrictions.

Note on playback operations of DVDs and VIDEO CDs

Some playback operations of DVDs and VIDEO CDs may be intentionally set by software producers. Since this system plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the DVDs or VIDEO CDs.

Copyrights

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

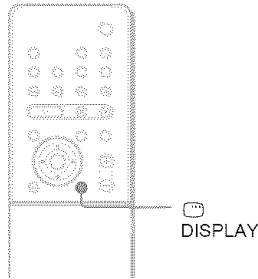
This system incorporates with Dolby*¹ Digital and Dolby Pro Logic (II) adaptive matrix surround decoder and the DTS*² Digital Surround System.

This system perfectly decodes 5.1 channel signal, but you cannot add other commercially available surround speakers.

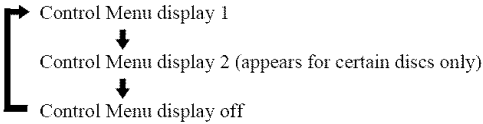
*1 Manufactured under license from Dolby Laboratories.
“Dolby,” “Pro Logic,” and the double-D symbol are trademarks of Dolby Laboratories.

*2 Manufactured under license from Digital Theater Systems, Inc.
“DTS” and “DTS Digital Surround” are trademarks of Digital Theater Systems, Inc.

Guide to the Control Menu Display



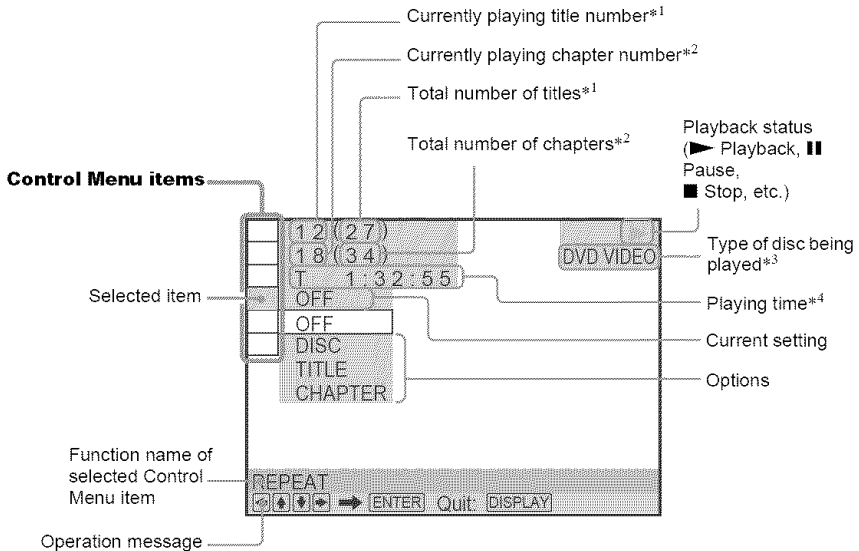
Use the Control Menu to select a function and to view related information. Press DISPLAY repeatedly to turn on or change the Control Menu display as follows:



Control Menu display

The Control Menu display 1 and 2 will show different items depending on the disc type. For details about each item, see the pages in parentheses.

Example: Control Menu display 1 when playing a DVD VIDEO.



*1 Displays the scene number for VIDEO CDs (PBC is on), track number for VIDEO CDs/Super Audio CDs/CDs, album number for DATA CDs.

*2 Displays the index number for VIDEO CDs/Super Audio CDs, MP3 audio track number, or JPEG image file number for DATA CDs.













*3 Displays Super VCD as "SVCD." Displays "MP3" in the Control Menu display 1 or "JPEG" in the Control Menu 2 for DATA CDs.

*4 Displays the date for JPEG files.











To turn off the display

Press  DISPLAY.

List of Control Menu items

Item	Item Name, Function, Relevant Disc Type
	[TITLE] (page 53)/[SCENE] (page 53)/[TRACK] (page 53) Selects the title, scene, or track to be played. DVD-V DVD-AU VIDEO CD
	[CHAPTER] (page 53)/[INDEX] (page 53) Selects the chapter or index to be played. DVD-V DVD-AU VIDEO CD
	[INDEX] (page 53) Displays the index and selects the index to be played. Super Audio CD
	[TRACK] (page 53) Selects the track to be played. C D DATA-CD Super Audio CD
	[ORIGINAL/PLAY LIST] (page 44) Selects the type of titles (DVD-RW) to be played, the [ORIGINAL] one, or an edited [PLAY LIST]. DVD-RW
	[TIME/TEXT] (page 53) Checks the elapsed time and the remaining playback time. Input the time code for picture and music searching. Displays the DVD/CD text or the MP3 track name. DVD-V DVD-AU VIDEO CD C D DATA-CD Super Audio CD
	[PROGRAM] (page 40) Selects the track to play in the order you want. VIDEO CD C D Super Audio CD
	[SHUFFLE] (page 41) Plays the track in random order. VIDEO CD C D Super Audio CD
	[REPEAT] (page 42) Plays the entire disc (all titles/all tracks/all albums) repeatedly or one title/chapter/track/album repeatedly. DVD-V DVD-AU VIDEO CD C D DATA-CD Super Audio CD
	[PARENTAL CONTROL] (page 60) Sets to prohibit playback on this system. DVD-V VIDEO CD C D Super Audio CD
	[SETUP] (page 75) [QUICK] Setup (page 29) Use Quick Setup to choose the desired language of the on-screen display, the aspect ratio of the TV, and the size of the speakers you are using. [CUSTOM] Setup In addition to the Quick Setup setting, you can adjust various other settings. [RESET] Returns the settings in [SETUP] to the default setting. DVD-V DVD-AU VIDEO CD C D DATA-CD Super Audio CD
	[ALBUM] (page 53) Selects the album to be played. DATA-CD

continued

	[FILE] (page 53) Selects the JPEG image file to be played.	
	[DATE] (page 58) Displays the date when the picture was taken.	
	[INTERVAL] (page 50) Specifies the duration for which the slides are displayed on the screen.	
	[EFFECT] (page 50) Selects the effects to be used for changing slides during a slide show.	
	[MODE (MP3, JPEG)] (page 49) Selects the data type; MP3 audio track (AUDIO), JPEG image file (IMAGE) or both (AUTO) to be played when playing a DATA CD	


Tip

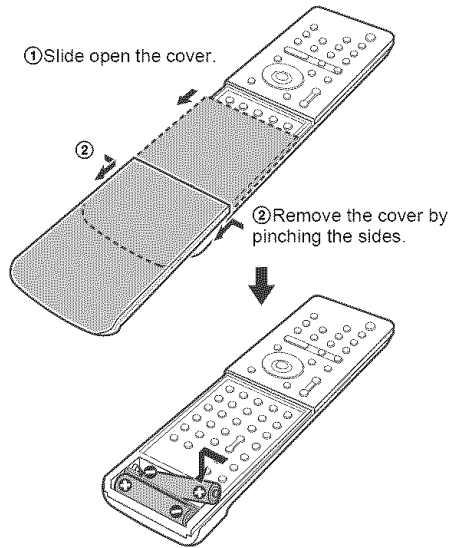
- The Control Menu icon indicator lights up in green  →  when you select any item except [OFF] ([PROGRAM], [SHUFFLE], [REPEAT] only). The [ORIGINAL/PLAY LIST] indicator lights up in green when you select [PLAY LIST] (default setting).

Check that you have the following items:

- Speakers (2)
- Subwoofer (1)
- AM loop antenna (aerial) (1)
- FM wire antenna (aerial) (1)
- Speaker cord (1)
- Video Cord (1)
- Remote Commander (remote) (1)
- Size AAA (R03) batteries (2)
- Operating Instructions
- Setup Disc (1)
- Quick Start Guide (card)
- Speaker pads (8)

Inserting Batteries into the Remote

You can control the system using the supplied remote. Insert two size AAA (R03) batteries by matching the ⊕ and ⊖ ends on the batteries to the markings inside the compartment. When using the remote, point it at the remote sensor  on the system.



Note

- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not expose the remote sensor to direct light from the sun or lighting apparatus. Doing so may cause a malfunction.
- If you do not intend to use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Hookup Overview

Perform all connections and settings by following Steps 1 to 7.

"Step 1: Speaker System Hookup" (page 16)

"Step 2: Antenna (Aerial) Hookup" (page 19)

"Step 3: TV Hookup" (page 20)

"Step 4: Other Component Hookup" (page 25)

"Step 5: Connecting the AC Power Cord (Mains Lead)" (page 28)

"Step 6: Performing the Quick Setup" (page 29)

"Step 7: Installing the Speakers" (page 31)

Video signal is sent to the TV, and is output from the TV screen; audio signals are processed by this system and output from the speakers of this system. You can also enjoy sound of other sources, such as TV programs, in addition to DVDs or CDs.

Step 1: Speaker System Hookup

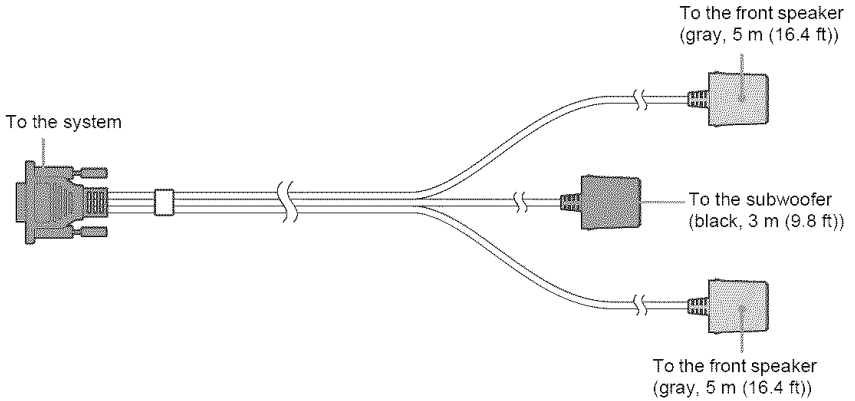
Connect the supplied speaker system using the supplied speaker cord. Do not connect any speakers other than those supplied with this system.

To obtain the best possible front surround sound, use the supplied Setup Disc to determine the ideal speaker positions (page 31).

Required cord

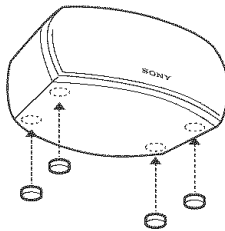
Speaker cord

You can connect the system and speakers with this one cord.

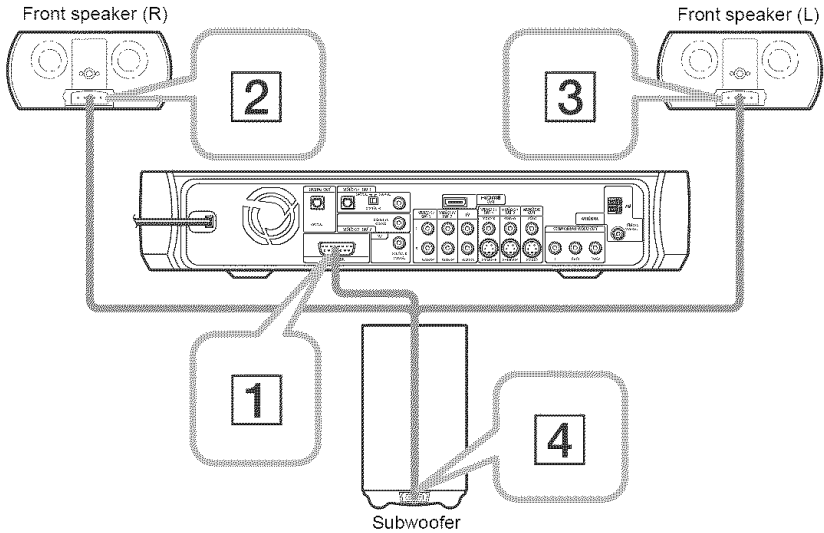


Attaching the speaker pads

To prevent speaker vibration or movement while listening, attach the supplied foot pads to the bottom four corners of the front speakers.



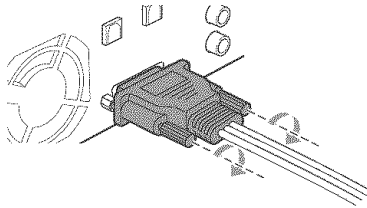
Connecting the speakers



Connect the speaker cord in order of **1** to **4**, according to the above illustration.

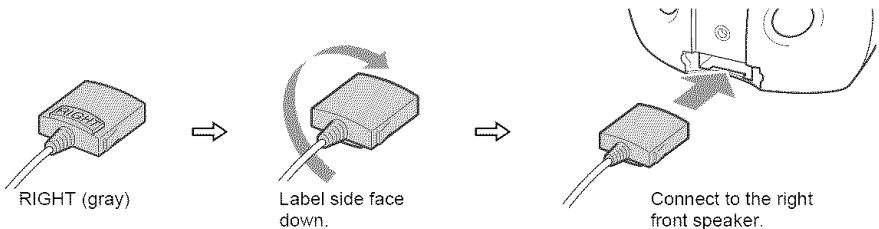
1 Connect the speaker cord to the system.

Secure the jack by tightening the two screws.



2 Connect the speaker jack marked RIGHT to the front speaker, then place it in the right front speaker position.

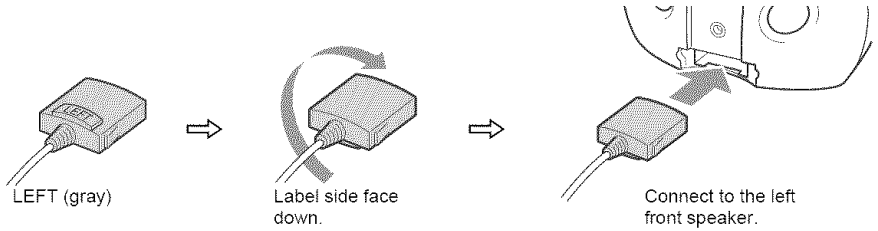
The front speakers are identical, and either can be used for the left or right speaker. If you connect the RIGHT jack to the speaker, it becomes the right front speaker.



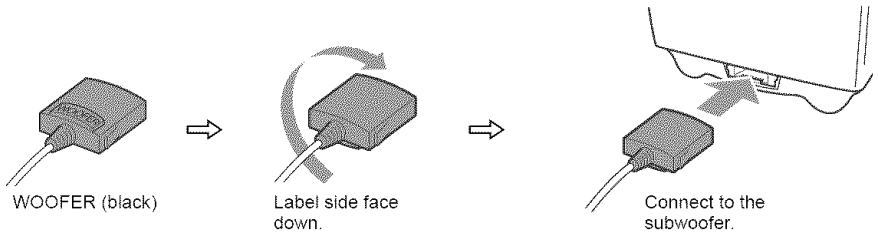
continued

3 Connect the speaker jack marked LEFT to the front speaker, then place it in the left front speaker position.

The front speakers are identical, and either can be used for the left or right speaker. If you connect the LEFT jack to the speaker, it becomes the left front speaker.



4 Connect the speaker jack marked WOOFER to the subwoofer.



After connecting all the components, speakers, and AC power cord (mains lead), use the Setup Disc to check all the speakers are connected correctly. For details on using the Setup Disc, see page 31.

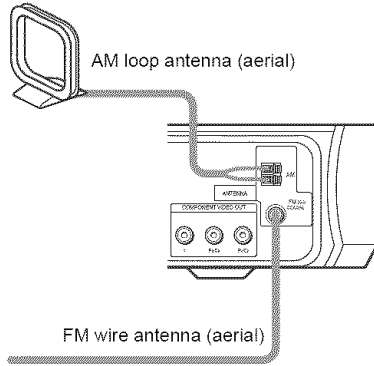
Note

- Do not set the speakers in an inclined position.
- Do not place the speakers in locations that are:
 - Extremely hot or cold
 - Dusty or dirty
 - Very humid
 - Subject to vibrations
 - Subject to direct sunlight
- When cleaning, use a soft cloth such as a cleaning cloth for glasses.
- Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzene.
- Do not connect the WOOFER jack either front speaker, or the LEFT or RIGHT jacks to the subwoofer.
- Place the speakers only on their bottom surfaces, with the SONY logo correctly oriented.



Step 2: Antenna (Aerial) Hookup

Connect the supplied AM/FM antennas (aerials) for listening to the radio.

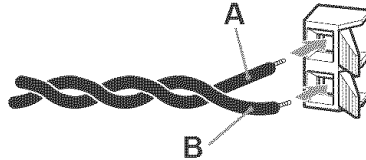


Note

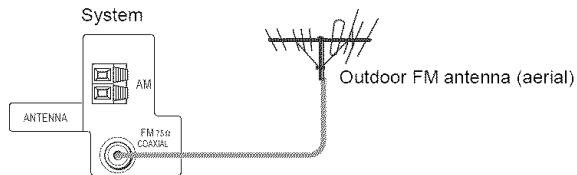
- To prevent noise pickup, keep the AM loop antenna (aerial) away from the system and other components.
- Be sure to fully extend the FM wire antenna (aerial).
- After connecting the FM wire antenna (aerial), keep it as horizontal as possible.

Tip

- When you connect the supplied AM loop antenna (aerial), cord (A) or cord (B) can be connected to either terminal.



- If you have poor FM reception, use a 75-ohms coaxial cable (not supplied) to connect the system to an outdoor FM antenna (aerial) as shown below.



Step 3: TV Hookup

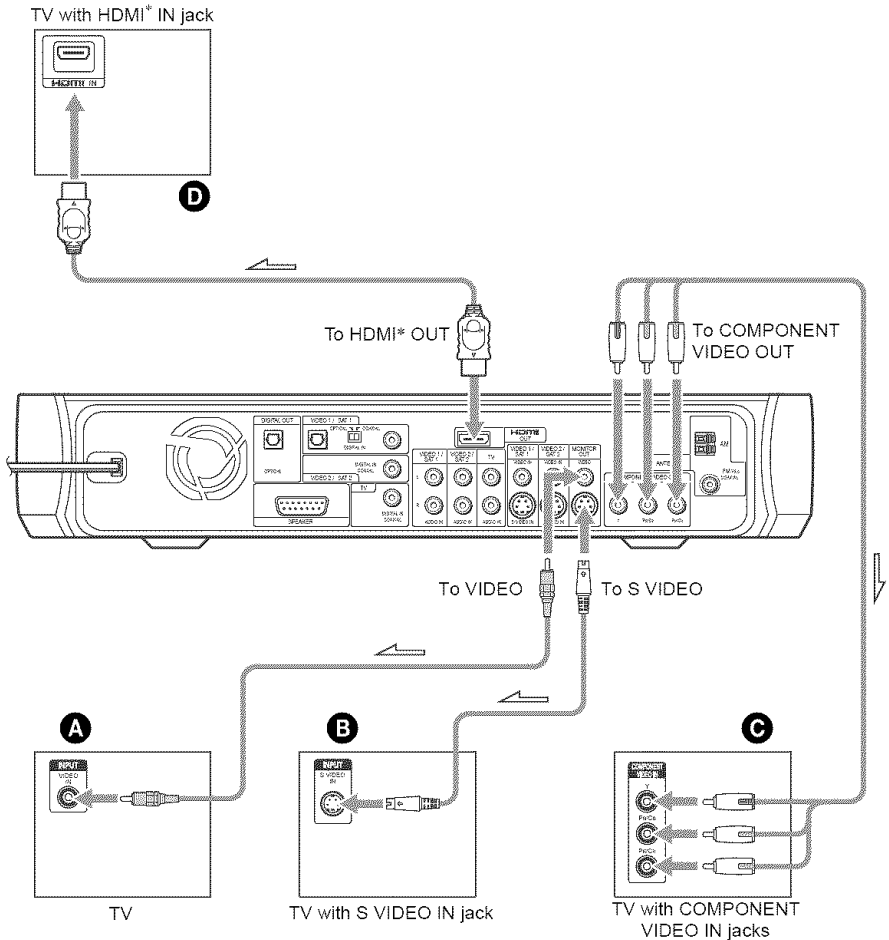
First, perform the video connection, and then audio connection.

With your TV's audio output connected to this system, you can listen to TV sound through the system speakers.

Connecting the video cords

Sends a played back DVD image to a TV.

Check the jacks of your TV, and choose the **A**, **B**, **C**, or **D** connection. Picture quality improves in order from **A** to **D**.



* HDMI (high-definition multimedia interface)

The system is based on version 1.1 of High-Definition Multimedia Interface Specifications. The system incorporates High-Definition Multimedia Interface (HDMI) technology. HDMI, the HDMI logo and High-Definition Multimedia Interface trademarks or registered trademarks of HDMI Licensing LLC.

A To connect to a TV with the VIDEO IN jacks

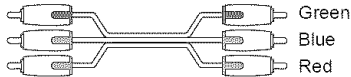
Connect the video cord.

**B To connect to a TV with the S VIDEO IN jack**

Connect an S video cord (not supplied). When using the S video jack instead of the video jacks, your TV monitor must also be connected via an S video jack. S video signals are on a separate bus from the video signals and will not be output through the video jacks.

**C To connect to a TV with the COMPONENT VIDEO IN jacks**

Connect a component video cord (not supplied). To use the COMPONENT VIDEO OUT jacks (Y, Pb/Cb, Pr/Cr) instead of the video jacks, your TV monitor must be equipped with via COMPONENT VIDEO IN jacks (Y, Pb/Cb, Pr/Cr). If your TV accepts progressive format signals, you should use this connection and set the output channel of the system to progressive format (page 22).

**D To connect to a TV with the HDMI/DVI (digital visual interface) input jack**

Use a certified HDMI cord (not supplied) to enjoy high quality digital picture and sound through the HDMI OUT jack. Note that Super Audio CD sound is not output from the HDMI OUT jack.

**To connect to a TV with DVI input**

Use an HDMI-DVI converter cord (not supplied) with an HDMI-DVI adaptor (not supplied). The DVI jack will not accept any audio signals. Furthermore, you cannot connect the HDMI OUT jack to DVI jacks that are not HDCP (high-bandwidth digital content protection) compliant (e.g., DVI jacks on PC displays).

Note

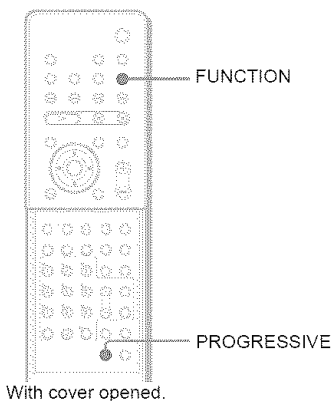
- Only when DVD function is selected (by pressing FUNCTION repeatedly until "DVD" appears in the front panel display), the COMPONENT VIDEO OUT jacks output video signals, and the HDMI OUT jack outputs video/audio signals (HDMI audio out default setting is OFF).

When connecting to a standard 4:3 screen TV

Depending on the disc, the image may not fit your TV screen.
To change the aspect ratio, see page 77.

Does your TV accept progressive signals?

Progressive is the method for displaying TV images which reduces flickering, and sharpens the image. To display using this method, you need to connect to a TV that accepts progressive signals.

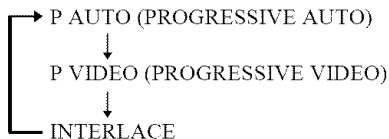


“P AUTO” or “P VIDEO” appears in the front panel display when the system outputs progressive signals.

1 Press **FUNCTION** repeatedly to select “DVD.”

2 Press **PROGRESSIVE**.

Each time you press **PROGRESSIVE**, the display changes as follows:



■ P AUTO (PROGRESSIVE AUTO)

Select this setting when:

- your TV accepts progressive signals, and,
- the TV is connected to the COMPONENT VIDEO OUT jacks.

Normally select this under the above condition. This automatically detects the software type, and selects the appropriate conversion method.

Note that the picture will not be clear or no picture will appear if you select these settings when either of the above conditions is not met.

■ P VIDEO (PROGRESSIVE VIDEO)

Select this setting when:

- your TV accepts progressive signals, and,
 - the TV is connected to the COMPONENT VIDEO OUT jacks, and,
 - you want to fix the conversion method to PROGRESSIVE VIDEO for video-based software.
- Select this if the image is not clear when you select PROGRESSIVE AUTO.

Note that the picture will not be clear or no picture will appear if you select these settings when

either of the above conditions is not met.

■ INTERLACE

Select this setting when:

- your TV does not accept progressive signals, or,
- your TV is connected to jacks other than the COMPONENT VIDEO OUT jacks (MONITOR OUT (VIDEO/S VIDEO)).

About DVD software types and the conversion method

DVD software can be divided into 2 types: film-based software and video-based software.

Video-based software is derived from TV, such as dramas and sit-coms, and displays images at 30 frames/60 fields per second. Film-based software is derived from film and displays images at 24 frames per second. Some DVD software contains both video and film.

In order for these images to appear natural on your screen when output in progressive format, the progressive signals need to be converted to match the type of DVD software that you are watching.

Note

- When you play video-based software in progressive signal format, sections of some types of images may appear unnatural due to the conversion process when output through the COMPONENT VIDEO OUT jacks. Even though you set to “PROGRESSIVE AUTO” or “PROGRESSIVE VIDEO,” images from the MONITOR OUT (VIDEO/S VIDEO) jack are unaffected as they are output in the interlace format.

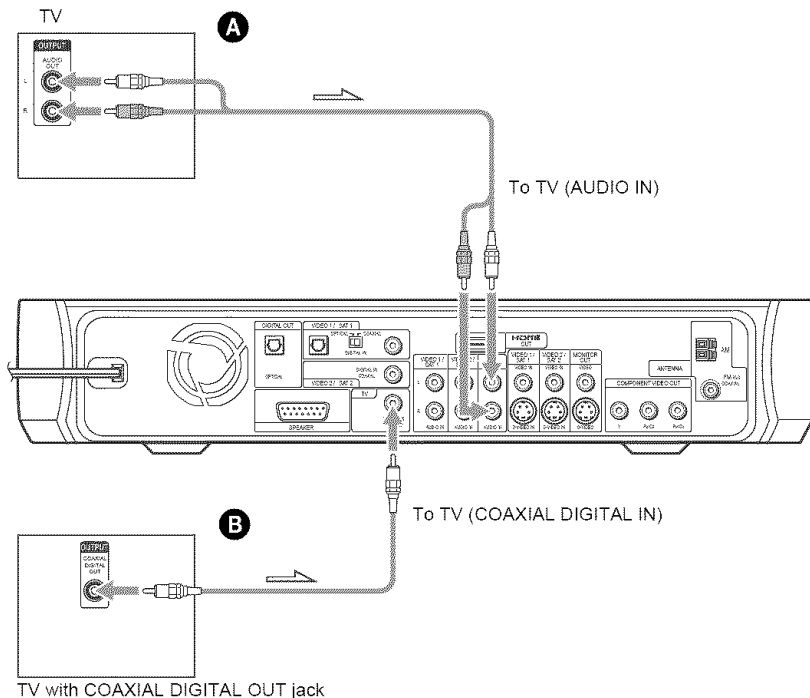
Connecting the audio cords

Outputs TV sound through the speakers of this system.

When you want to output stereo (2-channel) TV sound from the system speakers, choose connection

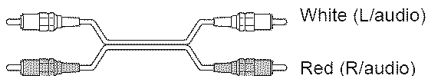
A or **B** below.

The quality of the audio increases from **A** to **B**.



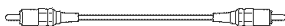
A To connect the AUDIO OUT jacks of a TV to the TV (AUDIO IN) jacks of this system

Connect a TV to the TV (AUDIO IN) jacks using an audio cord (not supplied). When connecting a cord, be sure to match the color-coded sleeves to the appropriate jacks on the components.



B To connect the COAXIAL DIGITAL OUT jack of a TV to the TV COAXIAL DIGITAL IN jack of this system

Connect a TV to the TV COAXIAL DIGITAL IN jack using a coaxial digital cord (not supplied).



Tip

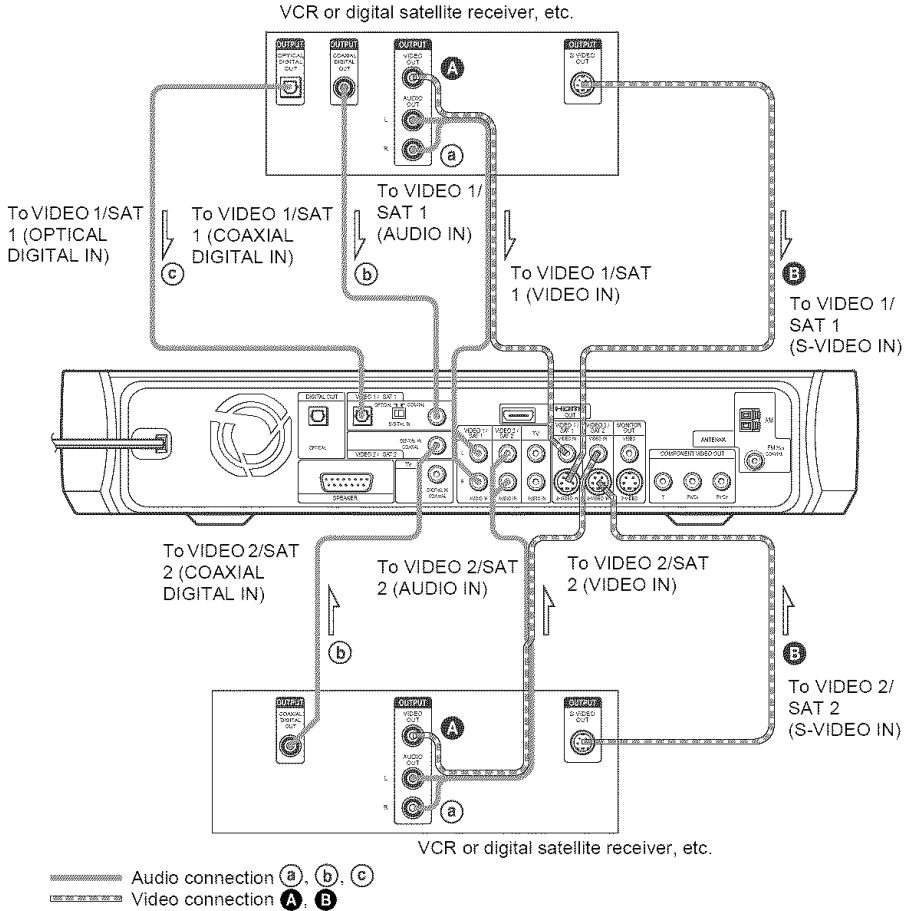
- To listen to the TV sound, select the function by pressing FUNCTION. For details, see page 38.

Note

- When you use both the TV AUDIO IN jacks (analogue connection) and the COAXIAL DIGITAL IN jack (digital connection) at the same time, the digital connection takes priority.

Step 4: Other Component Hookup

You can enjoy a variety of other components connected to the system. Be sure to make connections securely to avoid hum and noise.

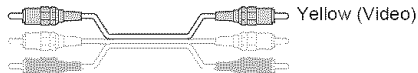


Connecting the video cords

The quality of the picture increases from **A** to **B**.

A To connect the VIDEO OUT jack of other component to the VIDEO IN jack of this system

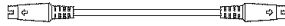
Connect a VCR or other component to the VIDEO IN jack using a video/audio cord (not supplied). When connecting a cord, be sure to match the color-coded sleeve to the appropriate component jack.



continued

B To connect the S VIDEO OUT jack of other component to the S VIDEO IN jack of this system

Connect a VCR or other component to the S VIDEO IN jack using an S video cord (not supplied).

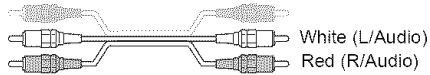


Connecting the audio cords

The quality of the audio increases from (a) to (b), (c).

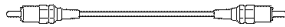
a To connect the AUDIO OUT jacks of other component to the AUDIO IN jacks of this system

Connect a VCR or other component to the AUDIO IN jacks using an video/audio cord (not supplied). When connecting the cords, be sure to match the color-coded sleeves to the appropriate component jacks.



b To connect the COAXIAL DIGITAL OUT jack of a component to the COAXIAL DIGITAL IN jack of this system

Connect the component to the COAXIAL DIGITAL IN jack using a coaxial digital cord (not supplied).



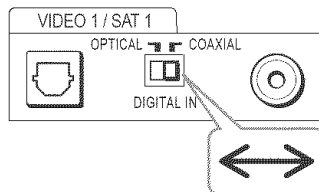
c To connect the OPTICAL DIGITAL OUT jack of a component to the OPTICAL DIGITAL IN jack of this system

Connect the component to the OPTICAL DIGITAL IN jack using an optical digital cord (not supplied).



Note

- Make sure that the connected jack combinations are correct; if you connect the audio cords to VIDEO 1/SAT 1 AUDIO IN, you should connect the video cord to VIDEO 1/SAT 1 VIDEO IN/S-VIDEO IN.
- When you connect to the VIDEO 1/SAT 1 OPTICAL or COAXIAL DIGITAL IN jack, set the switch on the rear panel accordingly.



If you connect a digital satellite receiver with a DIGITAL OUT (COAXIAL or OPTICAL) jack

The digital satellite receiver can be connected to the VIDEO 1/SAT 1 OPTICAL or COAXIAL DIGITAL IN or VIDEO 2/SAT 2 COAXIAL DIGITAL IN jack instead of the VIDEO 1/SAT1 or VIDEO 2/SAT2 AUDIO IN jacks of the system.

The system can accept both the digital and analogue signals. Digital signals have priority over analogue signals. If the digital signal ceases, the analogue signal will be processed after 2 seconds.

If you connect a digital satellite receiver without a DIGITAL OUT jack

Connect the digital satellite receiver to the VIDEO 1/SAT1 or VIDEO 2/SAT2 AUDIO IN jacks only of the system.

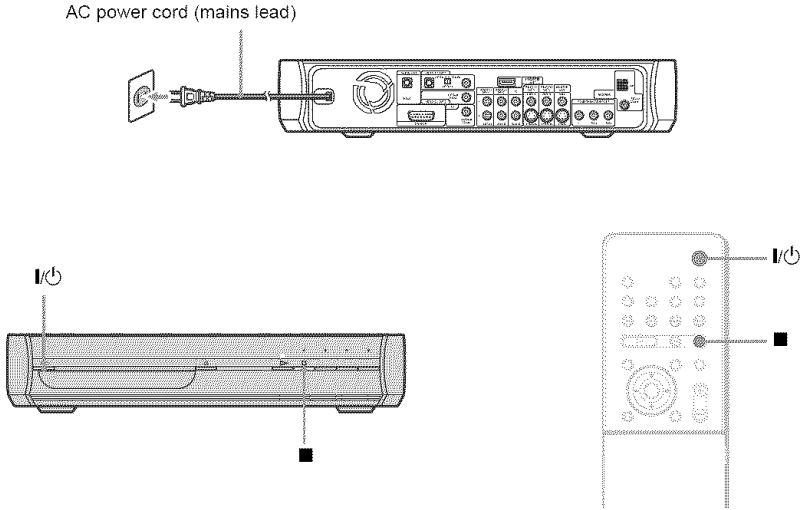
Note

- The DIGITAL OUT jack outputs audio signals only when DVD function is selected (by pressing FUNCTION repeatedly until "DVD" appears in the front panel display). (CDs, DVDs only)
- When you play a DVD, connected components that do not accept Dolby Digital, DTS, etc., may cause noise.

Step 5: Connecting the AC Power Cord (Mains Lead)

Before connecting the AC power cord (mains lead) of this system to a wall outlet (mains), connect the speakers to the system (page 16).

Connect the AC power cord (mains lead) to a wall outlet (mains).



To turn on the system

Press I/⏻.

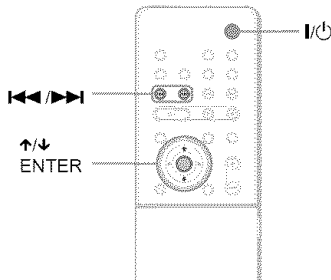
To turn off the system

Press I/⏻. The system enters standby mode.

While playing a disc, do not turn off the system by pressing I/⏻. Doing so may cancel the menu settings. When you turn off the system, first press ■ to stop playback and then press I/⏻.

Step 6: Performing the Quick Setup

There are a minimum number of basic adjustments available for using the system. You can set the display language, sound track, or screen settings that match your TV type, etc.



Note

- The selectable language is different depending on the area.
- Make sure that the function is set to "DVD."

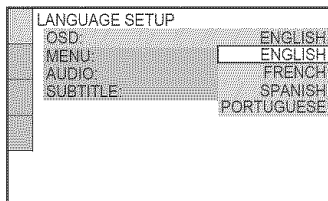
To skip an adjustment, press ►►. To return to the previous adjustment, press ◀◀.

- 1 Turn on the TV.**
- 2 Press I/O.**
- 3 Switch the input selector on your TV so that the signal from the system appears on the TV screen.**

[Press [ENTER] to run QUICK SETUP.] appears at the bottom of the screen. If this message does not appear, display the Quick Setup and perform again (page 30).

- 4 Press ENTER without inserting a disc.**

The Setup Display for selecting the language used in the on-screen display appears.

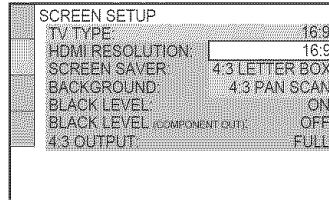


- 5 Press ↑/↓ to select a language.**

The system displays the menu and subtitles in the selected language.

6 Press ENTER.

The Setup Display for selecting the aspect ratio of the TV to be connected appears.



7 Press \uparrow/\downarrow to select the setting that matches your TV type.

■ If you have a wide-screen TV or a 4:3 standard TV with a wide-screen mode

[16:9] (page 77)

■ If you have a 4:3 standard TV

[4:3 LETTER BOX] or [4:3 PAN SCAN] (page 77)

8 Press ENTER.

Quick Setup is finished. All connections and setup operations are complete.

To quit the Quick Setup

Press \square DISPLAY in any Step.

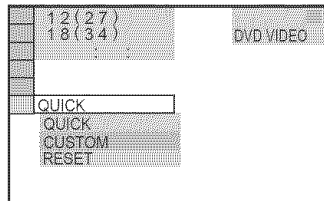
To recall the Quick Setup display

1 Press \square DISPLAY. (If a disc is playing, press \blacksquare to stop playback, then press \square DISPLAY.)

The Control Menu appears.

2 Press \uparrow/\downarrow to select \square [SETUP], then press ENTER.

The options for [SETUP] appear.

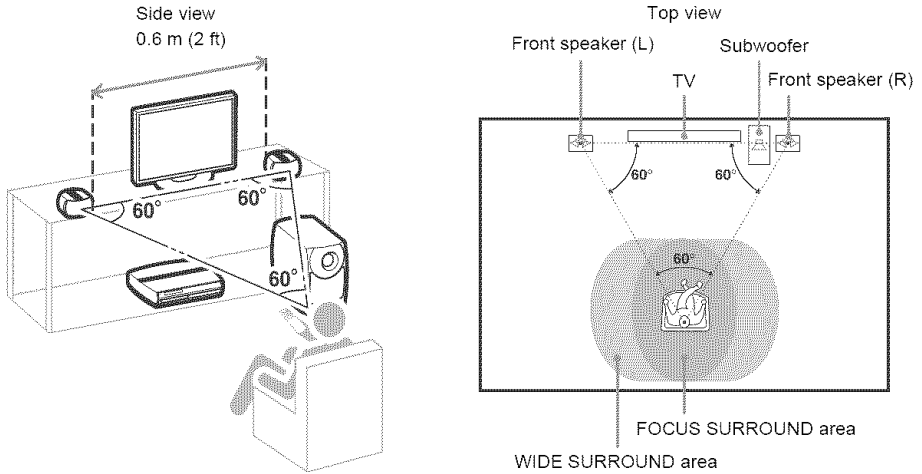


3 Press \uparrow/\downarrow to select [QUICK], then press ENTER.

The Quick Setup display appears.

Step 7: Installing the Speakers

For the best possible front surround sound, use the Setup Disc and position the speakers as illustrated below.



Tip

- When checking the front surround sound effect, make sure the SOUND FIELD setting is set to FOCUS SURROUND, and one or two people are in the listening position.

Positioning the speakers

The effective area of surround sound will vary depending on the sound field selection (FOCUS SURROUND or WIDE SURROUND). You can change the sound field setting for optimal front surround sound effect.

For details, see “Enjoying Front Surround Sound Using Sound Field” (page 36).

Notes about positioning the front speakers

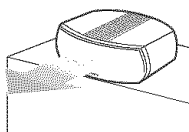
For best results, observe the following:

- Place both front speakers the same distance apart as they are from the listening position (to form an equilateral triangle).
- The front speakers should be placed at least 0.6 m (2 ft) apart.
- The front speakers should be placed at ear level in the listening position.
- Place the front speakers forward of the TV. Make sure there are no reflecting obstacles in front of the speakers.

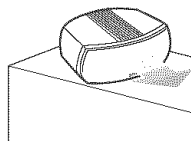
continued

- Both front speakers should be pointed straight forward. Do not place the speakers at an angle.

Correct



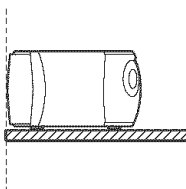
Incorrect



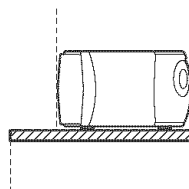
- Do not leave a space in front of the front speakers when placed on a table or rack, etc., as reflection may occur.

Side view

Correct

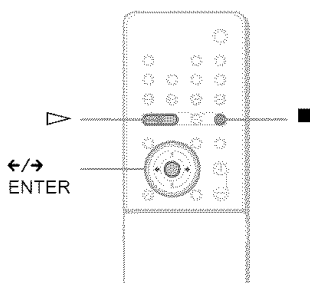
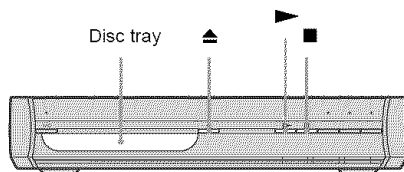


Incorrect



Using the Setup Disc

After positioning the speakers, use the supplied Setup Disc to check the front surround sound effect.



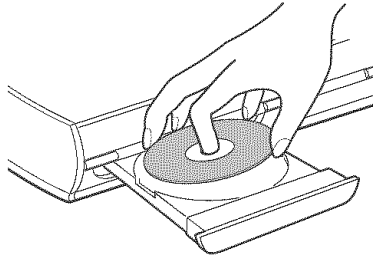
Note

- Even if an option is selected, the sound volume of the subwoofer may be low. This is by default setting, and is not a malfunction.
- If there is no sound from the speakers, check the speaker connection.

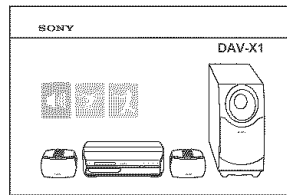
1 Press **▲** on the system.

2 Load the Setup Disc.

Place the Setup Disc on the tray, and then press **▲** on the system.

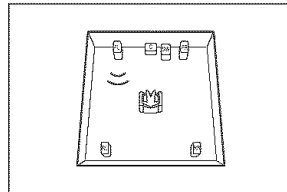


The Setup Disc menu appears.



3 Sit in the listening position, then select one of the three options on the screen using **←→**, and press **▷** or **ENTER**.

The selected option starts.



4 Listening carefully to how the option sounds to determine the optimal surround sound effect.

If a satisfactory surround sound effect cannot be achieved, adjust the speaker positions.

5 Press **■** to stop the disc.

6 Press **▲** on the system to eject the disc.

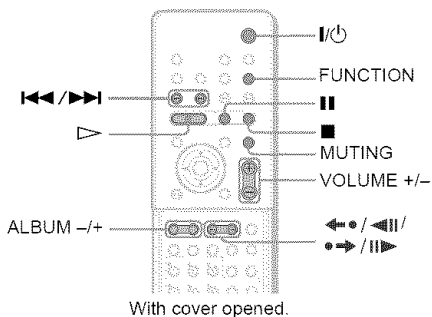
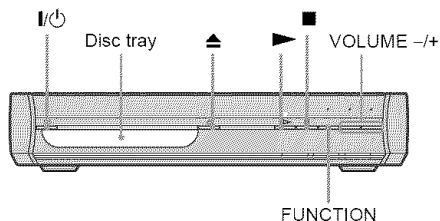
To adjust the volume of all the speakers at one time

Press **VOLUME +/-** on the system, or press **VOLUME +/-** on the remote.

Basic Operations

Playing Discs

DVD-V DVD-RW VIDEO CD Super Audio CD C D DATA-CD



Note

- Do not forcibly press the disc tray closed with your finger, as this may cause malfunction.
- Do not place more than two discs on the tray.

Depending on the DVD VIDEO or VIDEO CD, some operations may be different or restricted.

Refer to the operation details supplied with your disc.

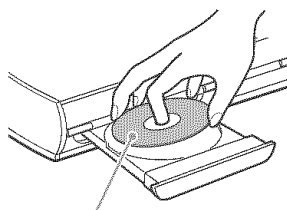
- 1 Turn on your TV.**
- 2 Switch the input selector on the TV to this system.**
- 3 Press I/O.**

The system turns on.

Unless the system is set to "DVD," press FUNCTION to select "DVD."

- 4 Press ▲ on the system.**
- 5 Load a disc.**

Place one disc on the tray, and then press ▲ on the system.



When you play an 8 cm disc, place it on the inner circle of the tray. Be careful that the disc is not skewed on the inner circle of the tray.

6 Press ▷.

The system starts playback (continuous play).

Adjust the volume.

Additional operations

To	Press
Stop	■
Pause	
Resume play after pause	or ▷
Go to the next chapter, track, or scene	▶▶ (except for JPEG)
Go back to the preceding chapter, track, or scene	◀◀ (except for JPEG)
Mute the sound	MUTING. To cancel muting, press it again or VOLUME + to adjust the sound volume.
Stop play and remove the disc	▲
Replay the previous scene* ¹	◀◀ / ◀ (instant replay) during playback.
Briefly fast forward the current scene* ²	▶▶ / ▶ (instant advance) during playback.
Go to the next or previous album* ³	ALBUM + or - during playback.

*1 DVD VIDEOS/DVD-RWs/DVD-Rs only.

*2 DVD VIDEOS/DVD-RWs/DVD-Rs/DVD+RWs only.

*3 DATA CDs only.

System Sound Feature

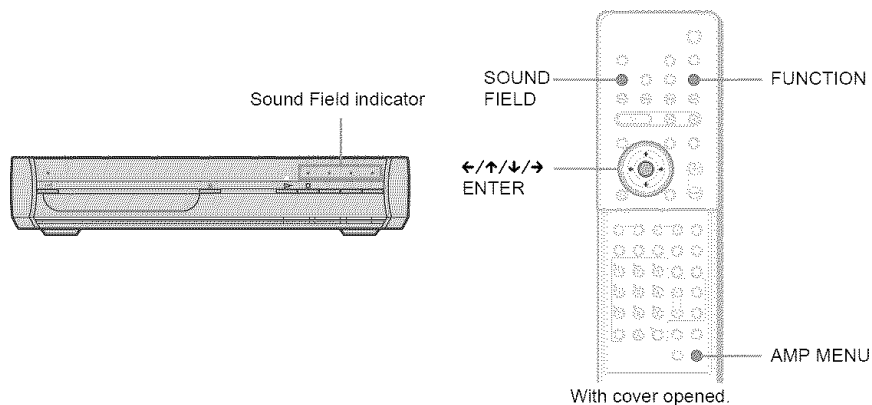
DVD-V

DVD-RW

VIDEO CD

CD

DATA-CD



This system can create 5.1 channel surround sound from two front speakers and a subwoofer. You can take advantage of this front surround sound simply by selecting one of system's preprogrammed sound fields. They bring the exciting and powerful sound of movie theaters into your home.

Enjoying Front Surround Sound Using Sound Field

Press SOUND FIELD.

The present sound field appears in the front panel display. Press SOUND FIELD repeatedly until the sound field you want appears in the front panel display. The selected Sound Field indicator on the front panel lights up*.

You can also select the sound field by pressing

←/↑/↓/→.

* When you press SOUND FIELD and the selected field is AUTO, AUTO and the selected sound field indicator (FOCUS SURROUND, WIDE SURROUND, or 2CH STEREO) light up.

Note

- When the system receives DVD multi-channel signals or AC-3 multiplex broadcast signals, the default AUTO setting is FOCUS SURROUND. (You can change the AUTO setting to WIDE SURROUND in AMP MENU.)
- When the system receives CDs or DATA CDs, the AUTO setting is 2CH STEREO.
- The sound field for Super Audio CDs is 2CH STEREO only.
- The surround effect might be difficult to hear depending on the type of source signals (e.g., digital stereo signals, digital multi signals, etc.) except for DVD multi-channel signals.

Tip

- The system memorizes the last sound field selected for each function mode. Whenever you select a function such as DVD or TUNER, the sound field that was last applied to function is automatically applied again.
- If the AC power cord (mains lead) is disconnected for a long period of time, the system may return to its default settings.

Available sound fields

Sound field	Display
AUTO	AUTO MODE
FOCUS SURROUND	FOCUS SURR [*]
WIDE SURROUND	WIDE SURR [*]
2CH STEREO	2CH STEREO

* Using S-FORCE PRO FRONT SURROUND technology.

About S-FORCE PRO FRONT SURROUND

Sony's long-term involvement in surround technology (and the vast amounts of acoustic data accumulated as a result) has led to the development of all-new processing method and advanced DSP to handle this task effectively, which we call S-FORCE PRO FRONT SURROUND. Compared with previous front surround technologies, S-FORCE PRO FRONT SURROUND reproduces a more convincing sense of distance and space, resulting in a true surround sound experience without the need for rear speakers.

Automatic sound field selection**■ AUTO**

This mode selects the sound field (Surround mode (FOCUS SURROUND or WIDE SURROUND) or 2CH STEREO) automatically, according to the type of audio signal being input. The default AUTO setting is FOCUS SURROUND.

To set the Surround mode setting (FOCUS SURROUND or WIDE SURROUND) in AUTO MODE, follow the steps below:

- 1 Press AMP MENU.
- 2 Press \uparrow/\downarrow to select [AUTO MODE], then press ENTER or \rightarrow .
- 3 Press \uparrow/\downarrow to select [FOCUS SURR] or [WIDE SURR], then press ENTER.

Enjoying the Front Surround Sound System

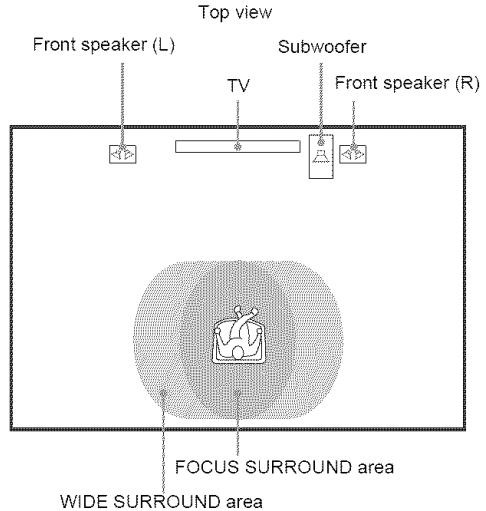
You can enjoy two types of front surround sound, FOCUS SURROUND or WIDE SURROUND, depending on the listening area.

■ FOCUS SURROUND

You can enjoy surround sound in a more focused sound area.

■ WIDE SURROUND

You can enjoy surround sound in a wider sound area. This mode produces less surround effect than FOCUS SURROUND.



2 channel source output

■ 2 CH STEREO

This mode outputs 2 channel sound regardless of the audio signal type being input.

Note

- When you use both the VIDEO 1/ SAT 1 or VIDEO 2/SAT 2 jacks (analog connection) and COAXIAL DIGITAL IN or OPTICAL DIGITAL IN jack (digital connection) at the same time, the digital connection takes priority.

Enjoying TV or VCR Sound with Front Surround Sound

You can enjoy TV or VCR sound with the front surround sound of this system.

For details, see “Step 3: TV Hookup” (page 20) and “Step 4: Other Component Hookup” (page 25).

- 1 Press FUNCTION repeatedly until “TV,” “VIDEO1(2),” or “SAT1(2)” (depending on what you set in the AMP MENU, see page 69) appears in the front panel display.**
- 2 Press SOUND FIELD repeatedly until the sound field you want appears in the front panel display.**

When you use a digital connection (COAXIAL or OPTICAL) and the selected sound field is AUTO, you can enjoy multi-channel signals with the front surround sound (default setting is FOCUS SURROUND). Even when you use a digital connection and the selected sound field is AUTO (FOCUS SURROUND), if the system receives 2-channel signal, the system will still only output 2-channel sound.

When you use an analogue connection and the selected sound field is AUTO, the system outputs 2-channel stereo signals.

Enjoying Discs

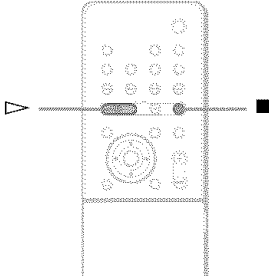
Resuming Playback from the Point Where You Stopped the Disc

(Resume Play)

DVD-V **DVD-RW** **VIDEO CD** **Super Audio CD** **CD**

DATA-CD

When you stop the disc, the system remembers the point where you pressed **■** and you can start playback from the point you stopped the disc.



1 While playing a disc, press **■** to stop playback.

“Resume” appears in the front panel display, so you can restart the disc from the point where you stopped the disc.

If “Resume” does not appear, Resume Play is not available.

2 Press **▷**.

The system starts playback from the point where you stopped the disc in step 1.

To enjoy a disc that is played before by resume playback (Multi-disc Resume)

(DVD VIDEO, VIDEO CD only)

This system stores the point where you stopped the disc for up to 40 discs and resumes playback the next time you insert the same disc. If you store a resume playback point for the 41st disc, the resume playback point for the first disc is deleted.

To activate this function, set [MULTI-DISC RESUME] in [CUSTOM SETUP] to [ON]. For details, see “[MULTI-DISC RESUME] (DVD VIDEO/VIDEO CD only)” (page 79).

Note

- If [MULTI-DISC RESUME] in [CUSTOM SETUP] is set to [OFF] (page 79), the resume point is cleared when you change the function by pressing FUNCTION.
- The point where you stopped playing may be cleared when:
 - you change the play mode.
 - you change the settings on the Setup Display.
 - you change the function by pressing FUNCTION.
 - you disconnect the AC power cord (mains lead) for a long period of time.
- For DVD-RWs in VR mode, CDs, Super Audio CDs, and DATA CDs, the system remembers the resume playback point for the current disc. The resume point is cleared when:
 - you eject the disc.
 - the system enters standby mode (DATA CD only).
- Resume Play does not work during Program Play and Shuffle Play.
- This function may not work with some discs.
- Depending on where you stop the disc, the system may not resume playback from exactly the same point.
- If [MULTI-DISC RESUME] in [CUSTOM SETUP] is set to [ON] (page 79) and you playback a recorded disc such as DVD-RW, the system may playback other recorded discs from the same resume point.

Tip

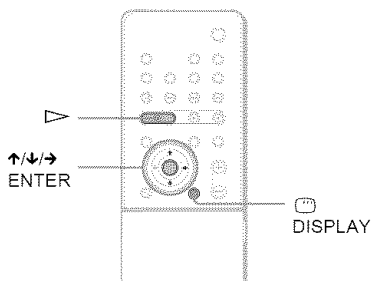
- To play from the beginning of the disc, press **■** twice, then press **▷**.

Creating Your Own Program

(Program Play)

VIDEO CD Super Audio CD CD

You can play the contents of a disc in the order you want by arranging the order of the tracks on the disc to create your own program. You can program up to 99 tracks.

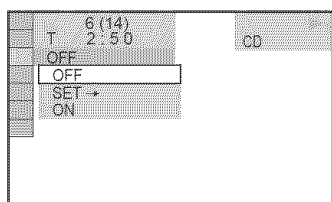


1 Press **DISPLAY**.

The Control Menu appears.

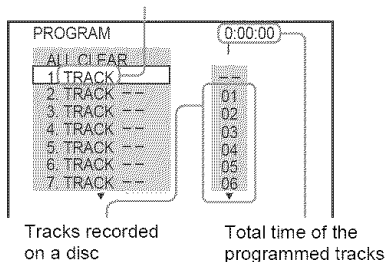
2 Press **↑/↓** to select **[PROGRAM]**, then press **ENTER**.

The options for **[PROGRAM]** appear.



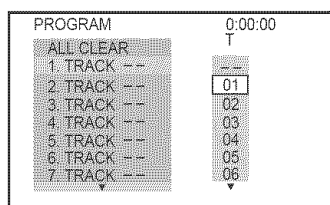
3 Press **↑/↓** to select **[SET →]**, then press **ENTER**.

[TRACK] is displayed when you play a VIDEO CD, Super Audio CD, or CD.



4 Press **→**.

The cursor moves to the track row **[T]** (in this case, **[01]**).

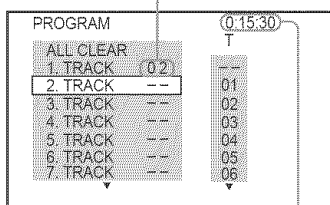


5 Select the track you want to program.

For example, select track **[02]**.

Press **↑/↓** to select **[02]** under **[T]**, then press **ENTER**. The track number may be displayed in 3 digits for a Super Audio CD.

Selected track



Total time of the programmed tracks

6 To program other tracks, repeat steps 4 to 5.

The programmed tracks are displayed in the selected order.

7 Press **▷** to start Program Play.

Program Play starts.

“PGM” appears in the front panel display.

When the program ends, you can restart the same program again by pressing **▷**.

To return to normal play

Press CLEAR, or select [OFF] in Step 2. To play the same program again, select [ON] in Step 3 and press ENTER.

To turn off the Control Menu

Press DISPLAY repeatedly until the Control Menu is turned off.

To change or cancel a program

- 1 Follow steps 1 to 3 of "Creating Your Own Program."
- 2 Select the program number of the track you want to change or cancel using . If you want to delete the track from the program, press CLEAR.
- 3 Follow Step 5 for new programming. To cancel a program, select [-] under [T], then press ENTER.

To cancel all of the tracks in the programmed order

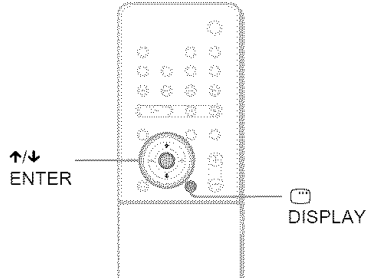
- 1 Follow steps 1 to 3 of "Creating Your Own Program."
- 2 Press and select [ALL CLEAR].
- 3 Press ENTER.

Playing in Random Order

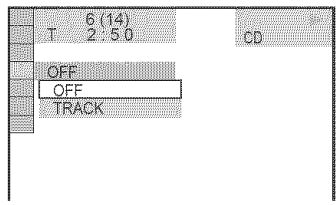
(Shuffle Play)



You can have the system "shuffle" tracks. Subsequent "shuffling" may produce a different playing order.



- 1 Press DISPLAY during playback. The Control Menu appears.
- 2 Press to select [SHUFFLE], then press ENTER. The options for [SHUFFLE] appear.




- 3 Press to select the item to be shuffled.
 - When playing a VIDEO CD, Super Audio CD, or CD
 - [TRACK]: shuffles tracks on the disc.
 - When Program Play is activated
 - [ON]: shuffles tracks selected in Program Play.
- 4 Press ENTER. Shuffle Play starts. "SHUF" appears in the front panel display.

continued

To return to normal play

Press CLEAR, or select [OFF] in Step 2.

To turn off the Control Menu

Press  DISPLAY repeatedly until the Control Menu is turned off.

Tip

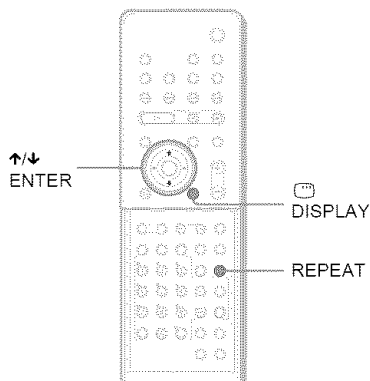
- You can set Shuffle Play while the system is stopped.

Playing Repeatedly




(Repeat Play)

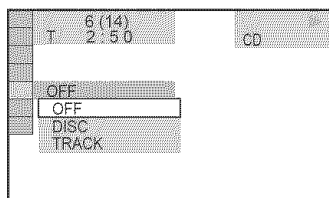



You can play all of the titles, tracks or albums on a disc or a single title, chapter, track, or album repeatedly.
You can use a combination of Shuffle or Program Play modes.



With cover opened.

- 1** Press  DISPLAY during playback.
The Control Menu appears.
- 2** Press  to select  [REPEAT], then press ENTER.
The options for [REPEAT] appear.



- 3** Press  to select the item to be repeated.

The default setting is underlined.

■ When playing a DVD VIDEO or DVD-RW

- [OFF]: does not play repeatedly.
- [DISC]: repeats all of the titles on the disc.

- [TITLE]: repeats the current title on a disc.
- [CHAPTER]: repeats the current chapter.

■ When playing a VIDEO CD, Super Audio CD, or CD

- [OFF]: does not play repeatedly.
- [DISC]: repeats all of the tracks on the disc.
- [TRACK]: repeats the current track.

■ When playing a DATA CD


- [OFF]: does not play repeatedly.
- [DISC]: repeats all of the albums on the disc.
- [ALBUM]: repeats the current album.
- [TRACK] (MP3 audio tracks only): repeats the current track.

4 Press ENTER.

The item is selected.

To return to normal play, press CLEAR, or select [OFF] in Step 2.

To turn off the Control Menu

Press  DISPLAY repeatedly until the Control Menu is turned off.

Note

- When [MODE (MP3, JPEG)] is set to [IMAGE (JPEG)] (page 49), you cannot select [TRACK].

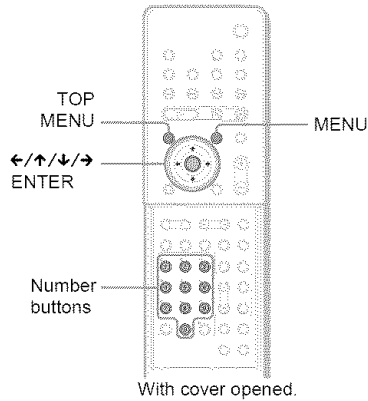
Tip





- You can also press REPEAT on the remote to set repeat play.
- Depending on the repeat type you set, indication in the front panel display may differ:
 - “REP”: Repeat all titles, tracks, or albums on a disc.
 - “REP1”: Repeat single title, chapter or album on a disc.

Using the DVD's Menu

DVD-V

A DVD is divided into a lot of sections, which make up a picture or music feature. These sections are called “titles.” When you play a DVD which contains several titles, you can select the title you want using TOP MENU. When you play DVDs that allow you to select items such as the language for the subtitles and the language for the sound, select these items using MENU.

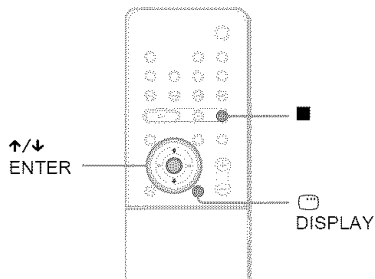


- 1 Press TOP MENU or MENU.**
The disc's menu appears on the TV screen. The contents of the menu vary from disc to disc.
- 2 Press  /  /  / .** or the number buttons to select the item you want to play or change.
- 3 Press ENTER.**

Selecting [ORIGINAL] or [PLAY LIST] on a DVD-RW

DVD-RW

Some DVD-RWs in VR (Video Recording) mode have two types of titles for playback: originally recorded titles ([ORIGINAL]) and titles that can be created on recordable DVD players for editing ([PLAY LIST]). You can select the type of title to be played.

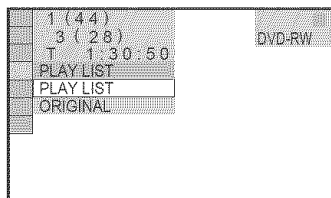


- 1 Press **DISPLAY**. (If a disc is playing, press **■** to stop playback, then press **DISPLAY**.)

The Control Menu appears.

- 2 Press **↑/↓** to select **[ORIGINAL/PLAY LIST]**, then press **ENTER**.

The options for [ORIGINAL/PLAY LIST] appear.



- 3 Press **↑/↓** to select a setting.

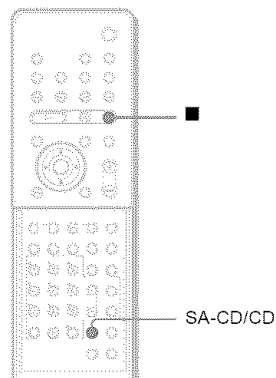
- [PLAY LIST]: plays the titles created from [ORIGINAL] for editing.
- [ORIGINAL]: plays the titles originally recorded.

- 4 Press **ENTER**.

Selecting a Playback layer for a Super Audio CD

Super Audio CD

Some Super Audio CDs consist of a Super Audio CD layer and a CD layer. You can select the playback layer you want to listen to.



With cover opened.

- Press **SA-CD/CD**. (If a disc is playing, press **■** to stop playback, then press **SA-CD/CD**.)

Each time you press the button, a Super Audio CD layer or a CD layer is alternately selected. When playing a Super Audio CD layer, "SA-CD" lights up in the front panel display.

Note

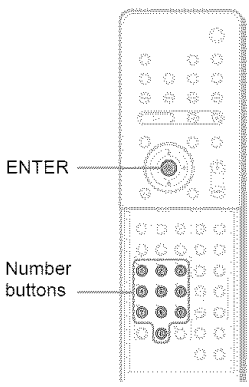
- For details about Super Audio CD discs, see page 8.
- Each play mode function works only within the selected layer.
- You cannot change a playback layer during playback.
- Super Audio CD audio signals are not output from the HDMI OUT (high-definition multimedia interface out) jack.

Playing VIDEO CDs with PBC Functions (Ver.2.0)

(PBC Playback)

VIDEO CD

With PBC (Playback Control) functions, you can enjoy simple interactive operations, search functions, and other such operations. PBC playback allows you to play VIDEO CDs interactively by following the menu on the TV screen.



With cover opened.

- 1 Start playing a VIDEO CD with PBC functions.**
The menu for your selection appears.
- 2 Select the item number you want by the number buttons.**
- 3 Press ENTER.**
- 4 Follow the instructions in the menu for interactive operations.**

Refer to the operation details supplied with the disc, as the operating procedure may differ depending on the VIDEO CD.

To go back to the menu

Press RETURN.

Note

- You cannot use Program Play, Shuffle Play, or Repeat Play with Video CDs and Super VCDs with PBC playback.

- Depending on the VIDEO CD, [Press ENTER] in Step 3 may appear as [Press SELECT] in the instructions supplied with the disc. In this case, press .

Tip

- To play without using PBC, press / or the number buttons while the system is stopped to select a track, then press or ENTER. You cannot play still pictures such as a menu. To return to PBC playback, press twice, then press .

About MP3 Audio Tracks and JPEG Image Files

DATA-CD

What is MP3/JPEG?

MP3 is audio compression technology that satisfies the ISO/MPEG regulations. JPEG is image compression technology.

Discs that the system can play

You can play back DATA CDs (CD-ROMs/CD-Rs/CD-RWs) recorded in MP3 (MPEG1 Audio Layer 3) and JPEG format. However, the discs must be recorded according to ISO 9660 Level 1, Level 2 or Joliet format for the system to recognize the tracks (or files). You can also play discs recorded in Multi Session.

See the instructions supplied with the CD-R/CD-RW drives and the recording software (not supplied) for details on the recording format.

About the multi-session disc

If MP3 audio tracks or JPEG image files are recorded in the first session, the system will also play MP3 audio tracks or JPEG image files in other sessions. If audio tracks and images in audio CD format or video CD format are recorded in the first session, only the first session will be played back.

Note

- The system may not be able to play some DATA CDs. In this case, you cannot view the JPEG images recorded.

MP3 audio track or JPEG image file that the system can play

The system can play the MP3 audio tracks or JPEG image files:

- which have the extension “.MP3” (MP3 audio track) or “.JPG”/“.JPEG” (JPEG image file)
- which conform to the DCF* image file format

* “Design rule for Camera File system”: Image standards for digital cameras regulated by Japan Electronics and Information Technology Industries Association (JEITA).

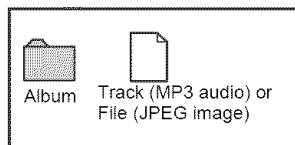
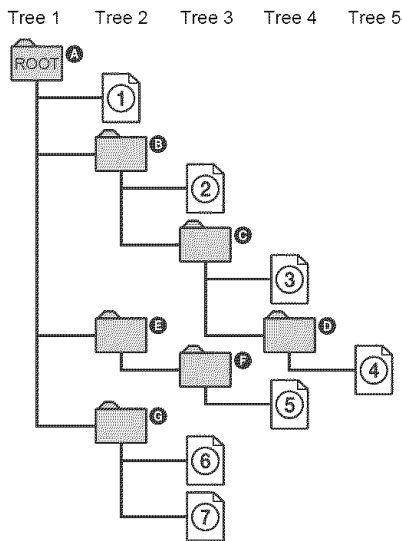
Note


- The system will play any data with the extension “.MP3,” “.JPG,” or “.JPEG” even if they are not in MP3 or JPEG format. Playing this data may generate a loud noise which could damage your speaker system.
- The system does not conform to audio in MP3PRO format.

Playback order of MP3 audio tracks or JPEG image files

The playback order of MP3 audio tracks or JPEG image files recorded on a DATA CD is as follows:

Structure of disc contents



When you insert a DATA CD and press , the numbered tracks (or files) are played sequentially, from ① through ⑦. Any sub-albums/tracks (or files) contained within a

currently selected album take priority over the next album in the same tree. (Example: ③ contains ④ so ④ is played before ⑤.)

When you press MENU and the list of album names appears (page 46), the album names are arranged in alphabetical order (A → B → C → D → F → G). Albums that do not contain tracks (or files) (such as album E) do not appear in the list.

Tip

- If you add numbers (01, 02, 03, etc.) to the front of the track/file names when you store the tracks (or files) in a disc, the tracks and files will be played in that order.
- If a disc consists of many trees, it takes longer to start playback.

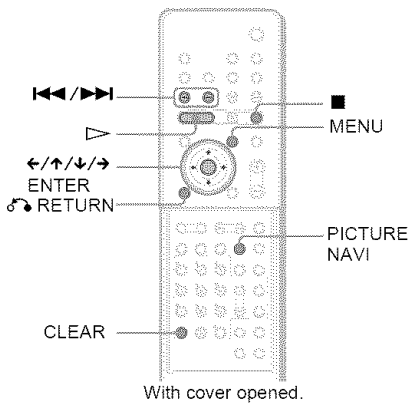
Note

- Playback order may differ from the illustration depending on the software you use to create the DATA CD, or if there are more than 200 albums and 300 files in each album.
- The system can recognize up to 200 albums, and will not play any albums beyond the 200th.
- The system may take longer time to playback, when progressing to the following album or jump to other album.
- Some type of JPEG files cannot be played.

Playing DATA CDs with MP3 Audio Track and JPEG Image Files

DATA-CD

MP3 audio tracks and JPEG image files recorded on DATA CDs (CD-ROMs/CD-Rs/CD-RWs) can be played on this system.



Selecting an album

1 Load a DATA CD.

The system starts playing from the first album.

2 Press MENU.

The list of albums recorded on the DATA CD appears. When an album is being played, its title is shaded.

You can turn the album list on and off by pressing MENU.



continued

- 3 Press \uparrow/\downarrow to select the album you want and press \triangleright .

The system starts playing the selected album.

To stop playback

Press \blacksquare .

To play the next or previous MP3 audio track

Press \lll/\ggg . Note that you can select the next album by continuing to press \ggg after the last track on the first album, but that you cannot return to the previous album by pressing \lll . To return to the previous album, select the album from the album list.

To play the next or previous JPEG image file

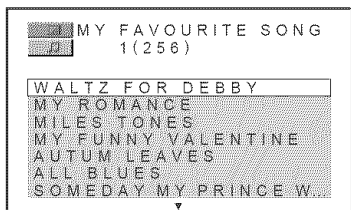
Press \leftarrow/\rightarrow when the Control Menu is not displayed. Note that you can select the next album by continuing to press \rightarrow after the last image on the first album, but that you cannot return to the previous album by pressing \leftarrow . To return to the previous album, select the album from the album list.

To turn off the display

Press MENU.

Selecting an MP3 audio track

- 1 Load a DATA CD.
The system starts playing from the first album.
- 2 Press MENU.
The albums recorded on the DATA CD appear. When an album is being played, its title is shaded.
- 3 Press \uparrow/\downarrow to select an album and press ENTER.
The list of tracks contained in the album appears.



- 4 Press \uparrow/\downarrow to select a track and press ENTER.

The selected track starts playing. You can turn the track list off by pressing MENU. Pressing MENU again will display the album list.

To stop playback

Press \blacksquare .

To play the next or previous MP3 audio track

Press \lll/\ggg . Note that you can select the next album by continuing to press \ggg after the last track on the first album, but that you cannot return to the previous album by pressing \lll . To return to the previous album, select the album from the album list.

To return to the previous display

Press \hookrightarrow RETURN.

To turn off the display

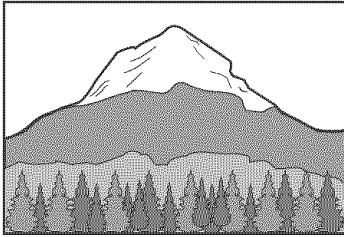
Press MENU.

Selecting a JPEG image file

- 1 Load a DATA CD.
The system starts playing from the first album.
- 2 Press MENU.
The albums recorded on the DATA CD appear. When an album is being played, its title is shaded.
- 3 Press \uparrow/\downarrow to select an album and press PICTURE NAVI.
Images of files in the album appear in 16 subscreens.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

- 4** Press $\leftarrow/\uparrow/\downarrow/\rightarrow$ to select the image you want to view and press ENTER.



To play the next or previous JPEG image file

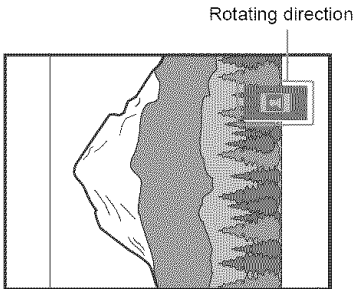
Press \leftarrow/\rightarrow when the Control Menu is not displayed. Note that you can select the next album by continuing to press \rightarrow after the last image on the first album, but that you cannot return to the previous album by pressing \leftarrow . To return to the previous album, select the album from the album list.

To rotate a JPEG image

When a JPEG image file is displayed on the screen, you can rotate the image by 90 degrees.

Press \uparrow/\downarrow while viewing an image. Each time you press \uparrow , the image rotates counterclockwise by 90 degrees.

Example of when you press \uparrow once:



Press CLEAR to return to normal view.

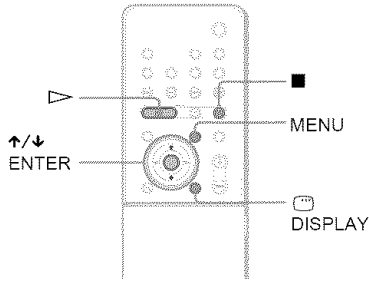
To stop playback

Press \blacksquare .

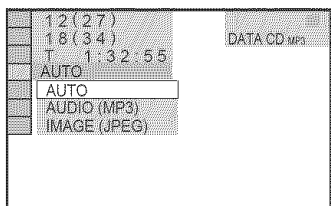
Playing Audio Tracks and Images as a Slide Show with Sound

DATA-CD

You can play a slide show with sound by first placing both MP3 and JPEG files in the same album on a DATA CD. When you play back the DATA CD, select [AUTO] mode as explained below.



- 1** Load a DATA CD.
The system starts playing from the first album.
- 2** Press \blacksquare .
The system stops playback.
- 3** Press DISPLAY .
The Control Menu appears.
- 4** Press \uparrow/\downarrow to select MODE [MODE (MP3, JPEG)], then press ENTER.
The options for [MODE (MP3, JPEG)] appear.



- 5** Press \uparrow/\downarrow to select the setting you want and press ENTER.

continued

The default setting is underlined.

- [AUTO]: plays both the JPEG image files and MP3 audio tracks in the same album as a slide show.
- [AUDIO (MP3)]: plays only MP3 audio tracks continuously.
- [IMAGE (JPEG)]: plays only JPEG image files as a slide show.

6 Press MENU.

The list of albums recorded on the DATA CD appears.

7 Press \uparrow/\downarrow to select the album you want and press \blacktriangleright .

The system starts playing the selected album.

You can turn the album list on and off by pressing MENU repeatedly.

Tip

- When you select [AUTO], the system can recognize up to 300 MP3 tracks and 300 JPEG files in a single album. When you select [AUDIO (MP3)] or [IMAGE (JPEG)], the system can recognize up to 600 MP3 and 600 JPEG files in a single album. A maximum of 200 albums can be recognized regardless of the selected mode.

Note

- You cannot playback JPEG files and MP3 tracks at the same time if they are not contained in the same album.
- If you set [MODE (MP3, JPEG)] to [IMAGE (JPEG)] on a disc that contains MP3 tracks only or [AUDIO (MP3)] on a disc that contains JPEG files only, you may not be able to change the [MODE (MP3, JPEG)] setting.
- PICTURE NAVI does not work when [AUDIO (MP3)] is selected.
- If you play large MP3 track data and JPEG image data at the same time, the sound may skip. It is recommended that you set the MP3 bit rate to 128 kbps or lower when creating the file. If the sound still skips, then reduce the size of the JPEG file.

Specifying the slide show duration

(JPEG only)

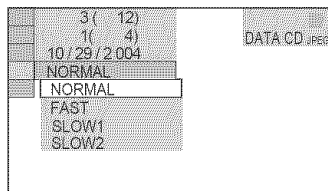
When you play JPEG image files using slide show, you can specify the duration for slides to appear on the screen.

1 Press \square DISPLAY twice.

The Control Menu for JPEG appears.

2 Press \uparrow/\downarrow to select [INTERVAL], then press ENTER.

The options for [INTERVAL] appear.



3 Press \uparrow/\downarrow to select the setting you want.

The default setting is underlined.

- [NORMAL]: sets the duration to about 6 to 9 seconds. (Images that are four million pixels or more will lengthen the duration.)
- [FAST]: sets the duration shorter than [NORMAL].
- [SLOW1]: Sets the duration longer than [NORMAL].
- [SLOW2]: Sets the duration longer than [SLOW1].

4 Press ENTER.

The selected setting takes effect.

Note

- Some JPEG files may take longer to display than others, which may make the duration seem longer than the option you selected. Especially progressive JPEG files or JPEG files of 3,000,000 pixels or more.

Selecting an effect for image files in the slide show

(JPEG only)

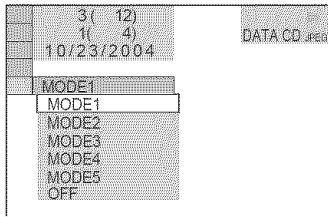
When you play a JPEG image file, you can select the effect to be used when viewing the slide show.

1 Press \square DISPLAY twice.

The Control Menu for JPEG appears.

2 Press \uparrow/\downarrow to select [EFFECT], then press ENTER.

The options for [EFFECT] appear.



3 Press \uparrow/\downarrow to select the setting you want.

The default setting is underlined.

- [MODE1]: The image sweeps in from top to bottom.
- [MODE2]: The image stretches out from left to right of the screen.
- [MODE3]: The image stretches out from the center of the screen.
- [MODE4]: The images randomly cycle through the effects.
- [MODE5]: The next image slides over the previous image.
- [OFF]: Turns off this function.

4 Press ENTER.

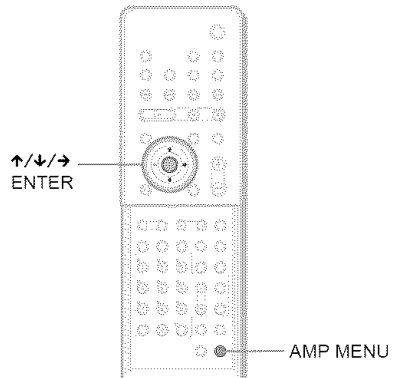
The selected setting takes effect.

Adjusting the Delay Between the Picture and Sound

(A/V SYNC)

DVD-V **DVD-AV** **VIDEO CD** **C D** **DATA-CD**

When the sound does not match the pictures on the screen, you can adjust the delay between the picture and sound.



With cover opened.

- 1** Press AMP MENU.
- 2** Press \uparrow/\downarrow repeatedly until "A/V SYNC" appears in the front panel display, then press ENTER or \rightarrow .
- 3** Press \uparrow/\downarrow to select the setting.
 - SYNC OFF: does not adjust.
 - SYNC ON: adjusts the difference between picture and sound.
- 4** Press ENTER or AMP MENU.

The AMP menu turns off.

Note

- Depending on the input stream, this function may not be effective.
- This function does not work for signals from a connected digital satellite tuner, MP3 audio signals, Super Audio CDs, or DTS-CDs.

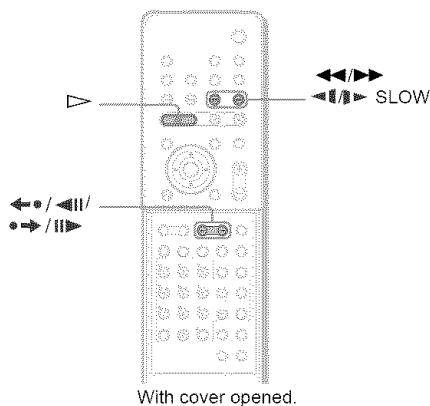
Searching for a Particular Point on a Disc

(Scan, Slow-motion Play, Freeze Frame)

DVD-V DVD-RW VIDEO CD Super Audio CD CD

DATA-CD

You can quickly locate a particular point on a disc by monitoring the picture or playing back slowly.



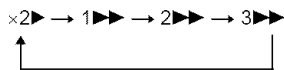
Note

- Depending on the DVD/VIDEO CD, you may not be able to do some of the operations described.

Locating a point quickly by playing a disc in fast forward or fast reverse (Scan) (except for JPEG)

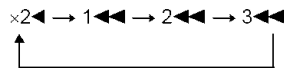
Press \lll or \ggg while playing a disc. When you find the point you want, press \triangleright to return to normal speed. Each time you press \lll or \ggg during scan, the playback speed changes. With each press the indication changes as shown below. Actual speeds may differ with some discs.

Playback direction



3 \ggg (DVD VIDEO/DVD-RW/VIDEO CD only)
 x2 \ggg (DVD VIDEO/Super Audio CD/CD only)

Opposite direction



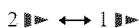
3 \lll (DVD VIDEO/DVD-RW/VIDEO CD only)
 x2 \lll (DVD VIDEO only)

The “x2 \ggg ”/“x2 \lll ” playback speed is about twice the normal speed. The “3 \ggg ”/“3 \lll ” playback speed is faster than the “2 \ggg ”/“2 \lll ” and the “2 \ggg ”/“2 \lll ” playback speed is faster than “1 \ggg ”/“1 \lll ”.

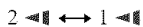
Watching frame by frame (Slow-motion Play) (DVD, DVD-RW, VIDEO CD only)

Press \lll or \ggg when the system is in pause mode. To return to the normal playback speed, press \triangleright . Each time you press \lll or \ggg during Slow-motion Play, the playback speed changes. Two speeds are available. With each press the indication changes as follows:

Playback direction



Opposite direction (DVD VIDEO only)



The “2 \ggg ”/“2 \lll ” playback speed is slower than “1 \ggg ”/“1 \lll ”.

Playing one frame at a time (Freeze Frame) (except for Super Audio CD, CD, and JPEG)

When the system is in the pause mode, press $\bullet\rightarrow/\ggg$ (step) to go to the next frame. Press $\lll/\bullet\leftarrow$ (step) to go to the preceding frame (DVD VIDEO/DVD-RW only). To return to normal playback, press \triangleright .

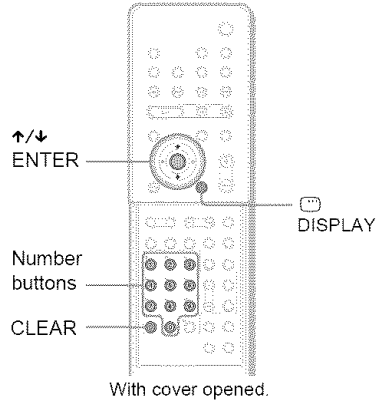
Note



- You cannot search for a still picture on a DVD-RW in VR mode.

Searching for a Title/ Chapter/Track/Scene, etc.



You can search a DVD by title or chapter, and you can search a VIDEO CD/Super Audio CD/CD/DATA CD by track, index, or scene. As titles and tracks are assigned unique numbers on the disc, you can select the desired one by entering its number. Or, you can search for a scene using the time code.

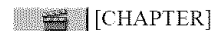


- 1 Press  DISPLAY. (When playing a DATA CD with JPEG image files, press  DISPLAY twice.)**

The Control Menu appears.

- 2 Press  to select the search method.**

■ When playing a DVD VIDEO/DVD-RW



Select [TIME/TEXT] to search for a starting point by inputting the time code.

■ When playing a VIDEO CD/Super VCD without PBC Playback



continued



[INDEX]

■ When playing a VIDEO CD/Super VCD with PBC Playback



[SCENE]

■ When playing a Super Audio CD



[TRACK]



[INDEX]

■ When playing a CD



[TRACK]

■ When playing a DATA CD (MP3 audio)



[ALBUM]



[TRACK]

■ When playing a DATA CD (JPEG file)



[ALBUM]

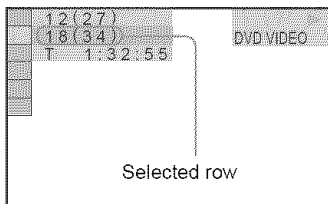


[FILE]

Example: when you select [CHAPTER]

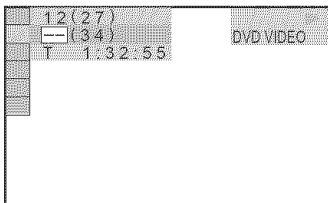
[** (**)] is selected (** refers to a number).

The number in parentheses indicates the total number of titles, chapters, tracks, indexes, scenes, albums or files.



3 Press ENTER.

[** (**)] changes to [-- (**)].



- 4 Press \uparrow/\downarrow or the number buttons to select the title, chapter, track, index, scene, etc., number you want to search for.

If you make a mistake

Cancel the number by pressing CLEAR, then select another number.

5 Press ENTER.

The system starts playback from the selected number.

To search for a scene using the time code (DVD VIDEO only)

- In Step 2, select [TIME/TEXT].
[T **:**:**] (playing time of the current title) is selected.
- Press ENTER.
[T **:**:**] changes to [T --:--:--].
- Input the time code using the number buttons, then press ENTER.
For example, to find the scene at 2 hours, 10 minutes, and 20 seconds after the beginning, just enter [2:10:20].

Tip

• When the Control Menu display is turned off, you can search for a chapter (DVD VIDEO/DVD-RW) or track (Super Audio CD/CD) by pressing the number buttons and ENTER.

Note

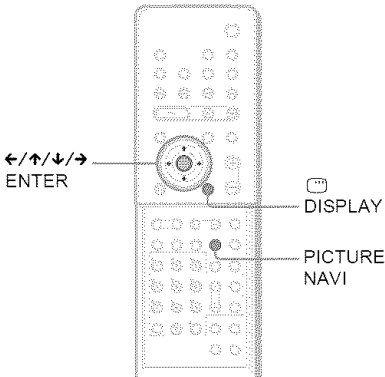
• You cannot search for a scene on a DVD+RW using the time code.

Searching by Scene

(Picture Navigation)

DVD-V VIDEO CD

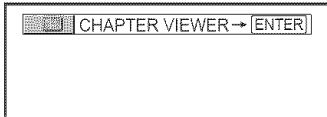
You can divide the screen into 9 subscreens and find the desired scene quickly.



With cover opened.

1 Press PICTURE NAVI during playback.

The following display appears.

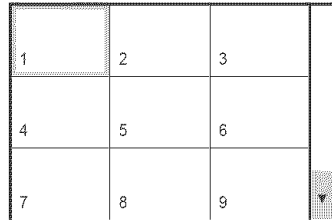


2 Press PICTURE NAVI repeatedly to select an item.

- [TITLE VIEWER] (DVD VIDEO only): displays the first scene of each title.
- [CHAPTER VIEWER] (DVD VIDEO only): displays the first scene of each chapter.
- [TRACK VIEWER] (VIDEO CD/ Super VCD only): displays the first scene of each track.

3 Press ENTER.

The first scene of each title, chapter, or track appears as follows.



4 Press ←/↑/↓/→ to select a title, chapter, or track, and press ENTER.

Playback starts from the selected scene.

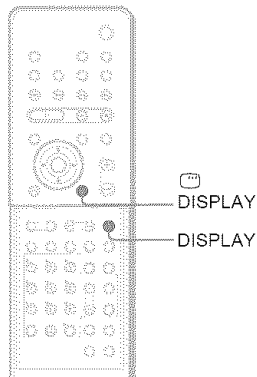
To return to normal play during setting

Press RETURN or DISPLAY.

Note

- Depending on the disc, you may not be able to select some items.

Viewing Information About the Disc



With cover opened.

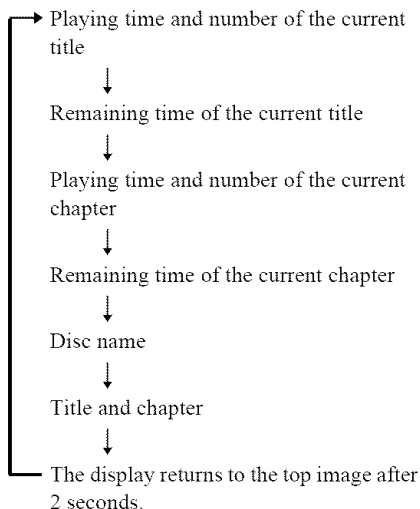
Viewing the Playing Time and Remaining Time in the Front Panel Display

You can check disc information, such as the remaining time, total number of titles in a DVD, tracks in a VIDEO CD, Super Audio CD, CD, or MP3, using the front panel display (page 92).

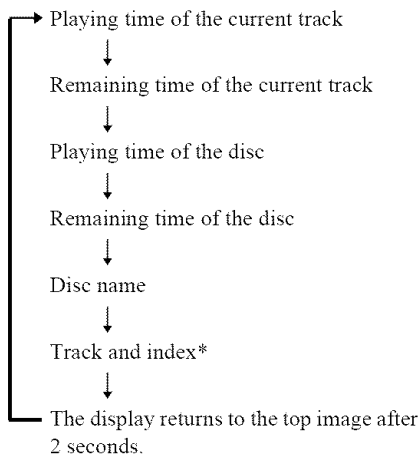
Press DISPLAY.

Each time you press DISPLAY while playing the disc, the display changes as shown in the charts.

When playing a DVD VIDEO or DVD-RW

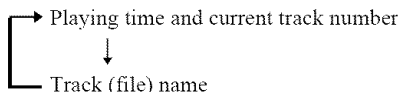


When playing a VIDEO CD (without PBC functions), Super Audio CD, or CD



* Except for CD.

When playing an MP3



Note

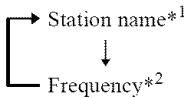
- The system can only display the first level of the DVD/CD text, such as the Disc name or title.
- If an MP3 file name cannot be displayed, “**” will appear in the front panel display instead.
- The disc name or track name may not be displayed depending on the text.
- Playing time of MP3 audio tracks may not be displayed correctly.

Viewing the Station Name or Frequency in the front panel display

When the system is set to “TUNER AM” or “TUNER FM,” you can check the frequency using the front panel display.

Press **DISPLAY**.

Each time you press **DISPLAY**, the display changes as shown in the charts.



*1 This is displayed if you have entered a name for a preset station (page 72).

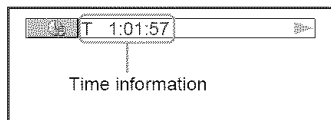
*2 Returns to the original display when several seconds has elapsed.

Checking the Playing Time and Remaining Time

You can check the playing time and remaining time of the current title, chapter, or track, and the total playing time or remaining time of the disc. You can also check the DVD text and MP3 folder name/file name recorded on the disc.

1 Press **DISPLAY** during playback.

The following display appears.



2 Press **DISPLAY** repeatedly to change the time information.

The display and the kinds of time that you can check depend on the disc you are playing.

■ When playing a DVD VIDEO or DVD-RW

- T **:**:**
Playing time of the current title
- T_**:**:**
Remaining time of the current title
- C **:**:**
Playing time of the current chapter
- C_**:**:**
Remaining time of the current chapter

■ When playing a VIDEO CD (with PBC functions)

- **:**:**
Playing time of the current scene

■ When playing a VIDEO CD (without PBC functions), Super Audio CD, or CD

- T **:**:**
Playing time of the current track
- T_**:**:**
Remaining time of the current track
- D **:**:**
Playing time of the current disc
- D_**:**:**
Remaining time of the current disc

■ When playing a DATA CD (MP3 audio)

- T **:**:**
Playing time of the current track

Note

- Only alphabetical letters and numbers can be displayed.
- Depending on the type of disc being played, the system can only display a limited number of characters. Also, depending on the disc, not all text characters will be displayed.

Checking the play information of the Disc

To check DVD/Super Audio CD/CD text

Press **DISPLAY** repeatedly in step 2 to display text recorded on the DVD/Super Audio CD/CD.

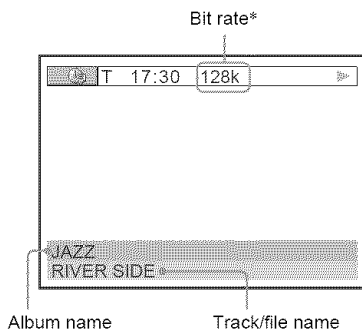
continued

The DVD/Super Audio CD/CD text appears only when text is recorded in the disc. You cannot change the text. If the disc does not contain text, “NO TEXT” appears.



To check DATA CD (MP3 audio) text

By pressing DISPLAY while playing MP3 audio tracks on a DATA CD, you can display the name of the album/track, and the audio bit rate (the amount of data per second of the current audio) on your TV screen.

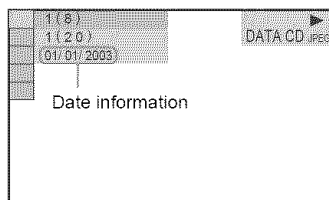


* Appears when playing an MP3 audio track on DATA CDs.

Checking the date information (JPEG only)

You can check the date information during playback when the Exif* tag is recorded in the JPEG image data.

Press DISPLAY twice during playback. The Control Menu appears.



* “Exchangeable Image File Format” is a digital camera image format defined by the Japan Electronics and Information Technology Industries Association (JEITA).

Tip

- Date information is [MM/DD/YYYY].
MM: Month
DD: Day
YYYY: Year

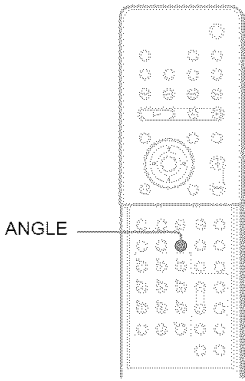
Using Various Additional Functions

Changing the Angles

DVD-V

If various angles (multi-angles) for a scene are recorded on a DVD VIDEO, you can change the viewing angle.

For example, while playing a scene of a train in motion, you can display the view from either the front of the train, the left window of the train, or from the right window without having the train's movement interrupted.



With cover opened.

Press ANGLE during playback.

Each time you press ANGLE, the angle changes.

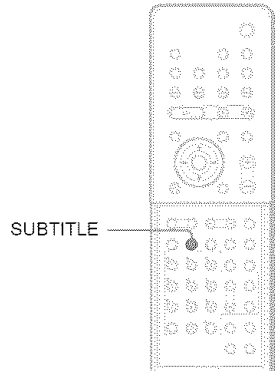
Note

- Depending on the DVD VIDEO, you may not be able to change the angle even if multi-angles are recorded on the DVD VIDEO.

Displaying the Subtitles

DVD-V DVD-RW

If subtitles are recorded on a disc, you can turn the subtitles on or off while playing. If multilingual subtitles are recorded on the disc, you can change the subtitle language while playing, or turn the subtitles on or off whenever you want. You can select a language you are learning, for example, and turn on the subtitles for better understanding.



With cover opened.

Press SUBTITLE during playback.

Each time you press SUBTITLE, the subtitle language changes.

Note

- Depending on the DVD VIDEO, you may not be able to change the subtitles even if multilingual subtitles are recorded on it. You also may not be able to turn them off.

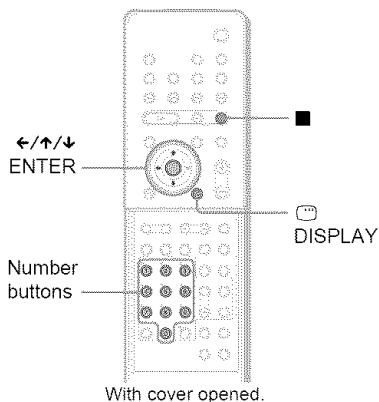
Locking Discs

(CUSTOM PARENTAL CONTROL, PARENTAL CONTROL)




You can set 2 kinds of playback restrictions for the desired disc.

- Custom Parental Control
You can set playback restrictions so that the system will not play inappropriate discs.
- Parental Control
Playback of some DVD VIDEOS can be limited according to a predetermined level such as the age of the users. Scenes may be blocked or replaced with different scenes. The same password is used for both Custom Parental Control and Parental Control.



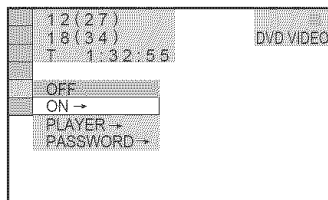
Preventing playback of specific discs [CUSTOM PARENTAL CONTROL]


You can set the same Custom Parental Control password for up to 40 discs. When you set the 41st-disc, the first disc is canceled.

- 1 Insert the disc you want to lock.**
If the disc is playing, press ■ to stop playback.
- 2 Press  DISPLAY.**
The Control Menu appears.

- 3 Press  to select  [PARENTAL CONTROL], then press ENTER.**

The options for [PARENTAL CONTROL] appear.



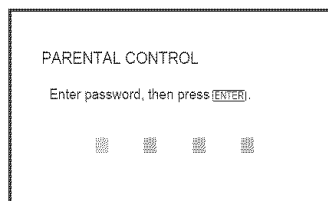
- 4 Press  to select [ON ->], then press ENTER.**

■ **If you have not entered a password**
The display for registering a new password appears.



Enter a 4-digit password using the number buttons, then press ENTER.
The display for confirming the password appears.

■ **When you have already registered a password**
The display for entering the password appears.



- 5 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.**

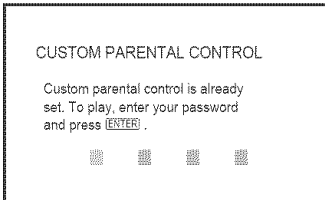
[Custom parental control is set.] appears and the screen returns to the Control Menu.

To turn off the Custom Parental Control function

- 1 Follow steps 1 through 3 of “Preventing playback of specific discs [CUSTOM PARENTAL CONTROL].”
- 2 Press \uparrow/\downarrow to select [OFF \rightarrow], then press ENTER.
- 3 Enter your 4-digit password using the number buttons, then press ENTER.

To play a disc for which Custom Parental Control is set

- 1 Insert the disc for which Custom Parental Control is set.
The [CUSTOM PARENTAL CONTROL] display appears.



- 2 Enter your 4-digit password using the number buttons, then press ENTER.
The system is ready for playback.

Tip

- If you forget your password, enter the 6-digit number “199703” using the number buttons when the [CUSTOM PARENTAL CONTROL] display asks you for your password, then press ENTER. The display will ask you to enter a new 4-digit password.


Limiting playback for children [PARENTAL CONTROL]

(DVD only)

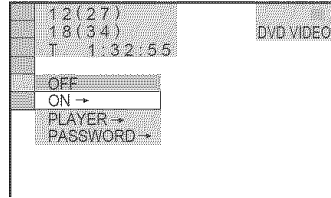
Playback of some DVD VIDEOS can be limited according to a predetermined level such as the age of the users. The [PARENTAL CONTROL] function allows you to set a playback limitation level.

- 1 Press \square DISPLAY. (If a disc is playing, press \blacksquare to stop playback, then press \square DISPLAY.)

The Control Menu appears.

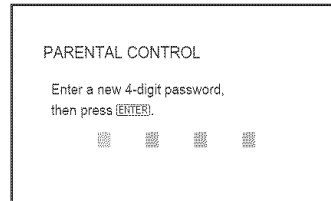
- 2 Press \uparrow/\downarrow to select  [PARENTAL CONTROL], then press ENTER.

The options for [PARENTAL CONTROL] appear.



- 3 Press \uparrow/\downarrow to select [PLAYER \rightarrow], then press ENTER.

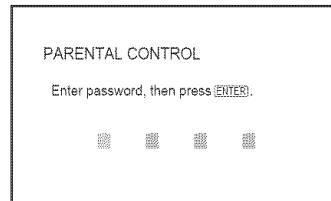
■ If you have not entered a password
The display for registering a new password appears.



Enter a 4-digit password using the number buttons, then press ENTER.
The display for confirming the password appears.

■ When you have already registered a password

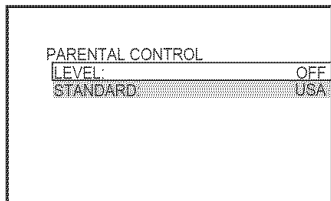
The display for entering the password appears.



continued

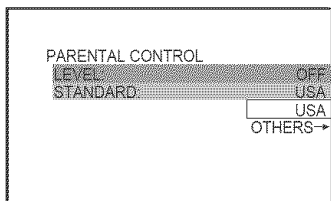
4 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.

The display for setting the playback limitation level appears.



5 Press \uparrow/\downarrow to select [STANDARD], then press ENTER.

The selection items for [STANDARD] are displayed.



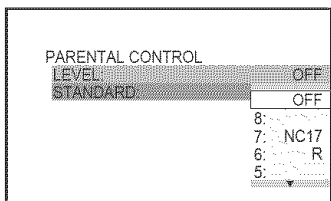
6 Press \uparrow/\downarrow to select a geographic area as the playback limitation level, then press ENTER.

The area is selected.

When you select [OTHERS \rightarrow], select and enter a standard code in the table on page 63 using the number buttons.

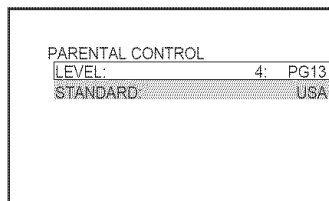
7 Press \uparrow/\downarrow to select [LEVEL], then press ENTER.

The selection items for [LEVEL] are displayed.



8 Press \uparrow/\downarrow to select the level you want, then press ENTER.

Parental Control setting is complete.



The lower the value, the stricter the limitation.

To turn off the Parental Control function

Set [LEVEL] to [OFF] in Step 8.

To play a disc for which Parental Control is set

1 Insert the disc and press \triangleright .

The display for entering your password appears.

2 Enter your 4-digit password using the number buttons, then press ENTER.

The system starts playback.

Tip

• If you forget your password, remove the disc and repeat steps 1 to 3 of "Preventing playback of specific discs [CUSTOM PARENTAL CONTROL]." When you are asked to enter your password, enter "199703" using the number buttons, then press ENTER. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password, replace the disc in the system and press \triangleright . When the display for entering your password appears, enter your new password.

Note


- When you play discs which do not have the Parental Control function, playback cannot be limited on this system.
- Depending on the disc, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level. If the Resume Play mode is canceled, the level returns to the previous level.

Area Code







Standard	Code number	Standard	Code number
Argentina	2044	Malaysia	2363
Australia	2047	Mexico	2362
Austria	2046	Netherlands	2376
Belgium	2057	New Zealand	2390
Brazil	2070	Norway	2379
Canada	2079	Pakistan	2427
Chile	2090	Philippines	2424
China	2092	Portugal	2436
Denmark	2115	Russia	2489
Finland	2165	Singapore	2501
France	2174	Spain	2149
Germany	2109	Sweden	2499
India	2248	Switzerland	2086
Indonesia	2238	Thailand	2528
Italy	2254	United Kingdom	2184
Japan	2276		
Korea	2304		

- 6** To confirm your password, re-enter it using the number buttons, then press ENTER.

If you make a mistake entering your password

Press  before you press ENTER and input the correct number.

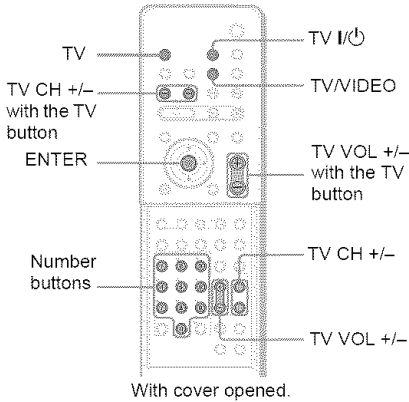
Changing the password

- Press  DISPLAY. (If a disc is playing, press  to stop playback, then press  DISPLAY.)
The Control Menu appears.
- Press  to select  [PARENTAL CONTROL], then press ENTER.
The options for [PARENTAL CONTROL] appear.
- Press  to select [PASSWORD →], then press ENTER.
The display for entering the password appears.
- Enter your 4-digit password using the number buttons, then press ENTER.
- Enter a new 4-digit password using the number buttons, then press ENTER.

Other Operations

Controlling the TV with the Supplied Remote

By adjusting the remote signal, you can control your TV with the supplied remote.



Note

- When you replace the batteries of the remote, the code number may reset itself to the default (SONY) setting. Reset the appropriate code number.

Controlling TVs with the remote

Press and hold TV I/O while entering your TV's manufacturer's code (see the table) using the number buttons. Then release TV I/O.

If you set successfully the manufacturer's code, the remote transmits the on/off signal of the TV.

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

TV

Manufacturer	Code number
SONY	001 (default)
DAEWOO	002, 004, 005, 006
FISHER	009
GOLDSTAR	020
HITACHI	014, 015
JVC	018
LOEWE	027, 028
MAGNAVOX	034
MITSUBISHI/MGA	022
PANASONIC	049, 050
PIONEER	029
RCA/PROSCAN	012, 032, 033
SAMSUNG	036
SANYO	010
SHARP	039, 040
TOSHIBA	046
ZENITH	016, 017

CATV

Manufacturer	Code number
SONY	101
HAMLIN/REGAL	123, 124, 125, 126, 127
JERROLD/GI	102, 103, 104, 105, 106, 107, 108, 109, 119
OAK	128, 129, 130
PANASONIC	120, 121, 122
PIONEER	115, 116
SCIENTIFIC ATLANTA	110, 111, 112
TOCOM	117, 118, 131
ZENITH	113, 114

To control the TV

You can control the TV by using following buttons.

By pressing	You can
TV I/O	Turn the TV on or off.
TV/VIDEO*	Switch the TV's input source between the TV and other input sources.
TV VOL +/-*	Adjust the TV volume.
TV CH +/-*	Select the TV channel.
Number buttons*	Select the TV channel.

- * To use these number buttons, set the remote to the TV mode by pressing the TV button. To cancel the TV mode, press the TV button again.

You can select the TV channels by using the number buttons.

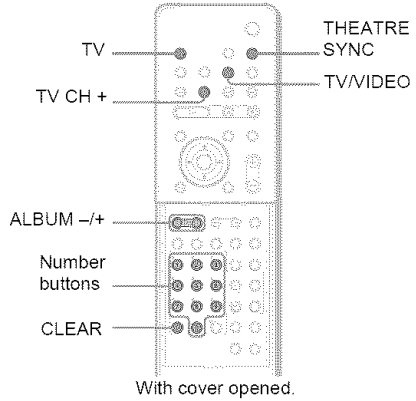
To select the TV channels, press the number buttons, then ENTER.

Note

- Depending on the TV, CATV, or satellite tuner, you may not be able to use the remote control or some of the above buttons.
- The TV mode turns off when you do not operate the remote for 10 seconds.

Using the THEATRE SYNC Function

THEATRE SYNC allows you to turn on your SONY TV and this system, changes the system mode to “DVD,” and then switches the TV’s input source you set with one button push.



Other Operations

Preparing for the THEATRE SYNC function

Register the TV’s input source connected to this system.

Press and hold TV/VIDEO while entering the code for the TV’s input source connected to this system (see the table) using the number buttons.

The TV’s input source is selected. If you successfully set the TV’s input source code, the TV button flashes twice slowly. If the setting is unsuccessful, the TV button flashes 5 times quickly. Set your TV’s input to the input you used to connect the system. For details, see the instructions of your TV.

By pressing	Number	TV's input source
TV/VIDEO	0	No input source (Default)
	1	VIDEO1
	2	VIDEO2
	3	VIDEO3
	4	VIDEO4
	5	VIDEO5
	6	VIDEO6
	7	VIDEO7
	8	VIDEO8
	9*	COMPONENT 1 INPUT
	CLEAR*	COMPONENT 2 INPUT
	ALBUM -*	COMPONENT 3 INPUT
	ALBUM +*	COMPONENT 4 INPUT

* Except for North American and European models.

Operating for the THEATRE SYNC function

Point the remote to the direction of TV and this system, then press THEATRE SYNC once.

While transmitting the code from the remote, the TV button flashes.

If this function does not work, change the transmit time. The transmit time varies depending on the TV.

To change the transmit time

Press and hold TV CH + while entering the code for transmit time (see the table) using the number buttons.

The transmit time from the remote is selected. If you successfully set the transmit time code, the TV button flashes twice slowly. If the setting is unsuccessful, the TV button flashes 5 times quickly.

By pressing	Number	Transmit time
TV CH +	1	0.5 (Default)
	2	1
	3	1.5
	4	2
	5	2.5
	6	3
	7	3.5
	8	4

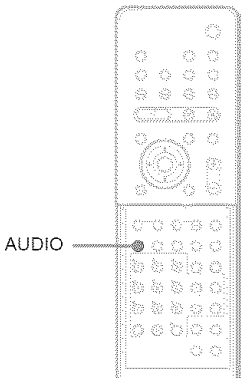
Note

- This function is only for SONY TVs. (This function may not work on some SONY TVs.)
- If distance between TV and this system is too far, this function may not work. Install the system near the TV.
- Keep the remote pointed in the direction of the TV and this system while the TV button is flashing.

Changing the Sound

DVD-V DVD-RW VIDEO CD CD DATA-CD

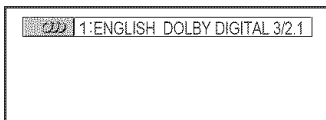
With VIDEO CDs, CDs, or DATA CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers. For example, when playing a disc containing a song with the vocals on the right channel and the instruments on the left channel, you can hear the instruments from both speakers by selecting the left channel.



With cover opened.

1 Press AUDIO during playback.

The following display appears.



2 Press AUDIO repeatedly to select the desired audio signal.

■ When playing a DVD VIDEO

Depending on the DVD VIDEO, the choice of language varies.

When 4 digits are displayed, they indicate a language code. Refer to “Language Code List” (page 90) to see which language the code represents. When the same language is displayed two or more times, the DVD VIDEO is recorded in multiple audio formats.

■ When playing a DVD-RW

The audio streams recorded on a disc are displayed. The default setting is underlined.

Example:

- [1: AUDIO]
- [2: AUDIO]

Note

- [2: AUDIO] does not appear when one audio stream is recorded on the disc.

■ When playing a VIDEO CD, CD, or DATA CD (MP3 audio)

The default setting is underlined.

- [STEREO]: the standard stereo sound
- [1/L]: the sound of the left channel (monaural)
- [2/R]: the sound of the right channel (monaural)

■ When playing a Super VCD

The default setting is underlined.

- [1:STEREO]: the stereo sound of the audio track 1
- [1:1/L]: the sound of the left channel of the audio track 1 (monaural)
- [1:2/R]: the sound of the right channel of the audio track 1 (monaural)
- [2:STEREO]: the stereo sound of the audio track 2
- [2:1/L]: the sound of the left channel of the audio track 2 (monaural)
- [2:2/R]: the sound of the right channel of the audio track 2 (monaural)

continued

Note

- While playing a Super VCD on which the audio track 2 is not recorded, no sound will come out when you select [2:STEREO], [2:1/L], or [2:2/R].
- You cannot change the sound for Super Audio CDs.

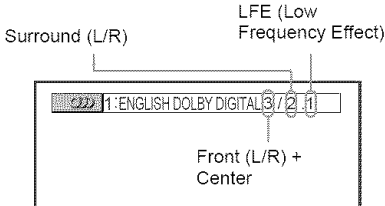
To check the audio signal format (DVD VIDEO only)

If you press AUDIO repeatedly during playback, the format of the current audio signal (PCM, Dolby Digital, DTS, etc.) appears on the screen. This function is prohibited on some discs.

■ When playing a DVD VIDEO

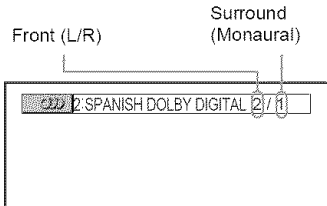
Example:

Dolby Digital 5.1 ch

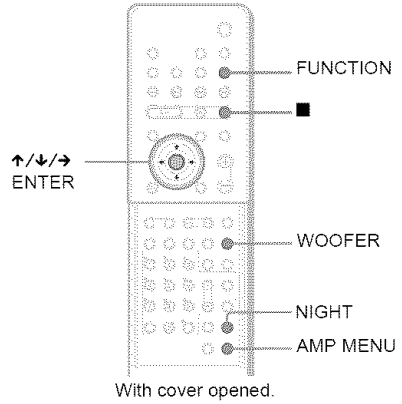


Example:

Dolby Digital 3 ch



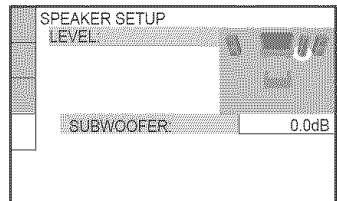
Using the Sound Effect



Reinforcing bass frequencies

You can reinforce bass frequencies on any source.

- 1 Make sure the function is set to “DVD.”**
If not, press FUNCTION repeatedly until “DVD” appears in the front panel display.
- 2 If a disc is playing, press ■ to stop, then press WOOFER.**
The SPEAKER SETUP appears.



- 3 Select the desired subwoofer level using ↑/↓, then press ENTER.**
The setting is selected and setup is complete.

Enjoying the sound at low volume

■ NIGHT MODE

In this mode, you can enjoy sound effects or dialogue as you would in a movie theater, even at a low volume. It is useful for watching movies at night.

Press **NIGHT** to select “NIGHT ON” in the front panel display.

■ AUDIO DRC

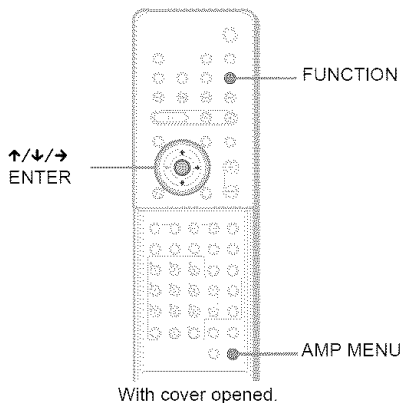
Narrows the dynamic range of a Dolby Digital sound track. Useful for watching movies at low volume late at night.

- 1 Press **AMP MENU**.
- 2 Press **↓/↑** repeatedly until “AUDIO DRC” appears in the front panel display, then press **ENTER** or **→**.
- 3 Press **↓/↑** to select the setting.
 - DRC OFF: no compression of dynamic range.
 - DRC STD: reproduces the sound track with the kind of dynamic range that the recording engineer intended.
 - DRC MAX: compresses dynamic range fully.
- 4 Press **ENTER** or **AMP MENU**.
The AMP menu turns off.

Note

- AUDIO DRC only applies to Dolby Digital sources.

Enjoying the Sound of Other Components



You can enjoy the sound of other components with this system. Connect the satellite receiver or components with a high audio output level (including 2V output components, such as MD decks, etc.) to the VIDEO 1/SAT 1 or VIDEO 2/SAT 2 jacks, and perform the following to prevent distortion occurring. Refer to the operation manual supplied with the components for further information on their operation.

Lowering the input sensitivity of the VIDEO 1/SAT 1 jack

- 1 Press **FUNCTION** repeatedly until “VIDEO1” appears in the front panel display.
If “SAT1” appears, the lower input sensitivity is already set and the following steps are unnecessary.
Each time you press **FUNCTION**, the system mode changes in the following sequence:
DVD → FM → AM → VIDEO1 (SAT1) → VIDEO2 (SAT2) → TV → DVD →
....
- 2 Press **AMP MENU**.

- 3** Press \uparrow/\downarrow repeatedly until “SET VIDEO1” blinks in the front panel display, then press ENTER or \rightarrow .
- 4** Press \uparrow/\downarrow to select “SET SAT1” (“SAT1” blinks) in the front panel display.

The input sensitivity is lowered.

- 5** Press ENTER or AMP MENU.

The AMP MENU turns off.

Note

- When connecting a component to the VIDEO 2/SAT 2 jack, select “VIDEO2” in step 1, “SET VIDEO2” in step 3, and “SET SAT2” in step 4.
- If you select “SET VIDEO1(2)” in step 4, the operation is canceled and the mode display (the mode of the system in step 1) remains as “VIDEO1(2).”

Enjoying Multiplex Broadcast Sound

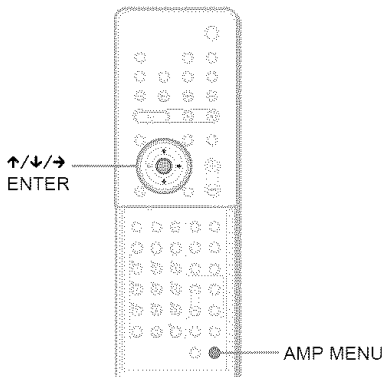
(DUAL MONO)

You can enjoy multiplex broadcast sound when the system receives the AC-3 multiplex broadcast signal.

You can play bilingual broadcasts recorded on DVD-RWs in VR mode.

Note

- To receive the AC-3 signal, you need to connect a digital satellite tuner to the system with an optical cable or coaxial cable (page 27) and set the digital output mode of the digital satellite tuner to AC-3.
- When you use HDMI audio output, the system always outputs “MAIN” sound regardless of the “DUAL MONO” setting in AMP MENU.



With cover opened.

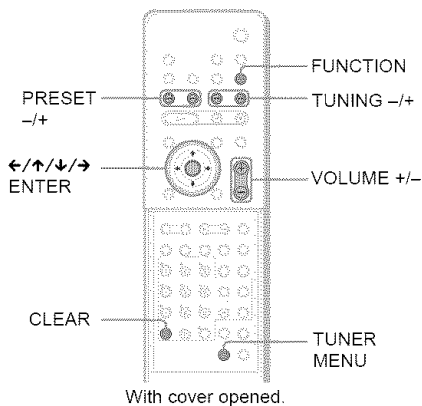
- 1** Press AMP MENU.
- 2** Press \downarrow/\uparrow repeatedly until “DUAL MONO” appears in the front panel display, then press ENTER or \rightarrow .
- 3** Press \downarrow/\uparrow to select the sound you want.
 - MAIN: main sound is output from the left and right speakers.
 - SUB: sub sound is output from the left and right speakers.
 - MAIN+SUB: main sound and Sub sound are output from the left and right speakers.

- MAIN/SUB: main sound is output from the left speaker and Sub sound is output from the right speaker.

4 Press ENTER or AMP MENU.

The AMP menu turns off.

Enjoying the Radio



Presetting radio stations

You can preset 20 FM stations, and 10 AM stations. Before tuning, make sure to turn down the volume to minimum.

- 1 Press **FUNCTION** repeatedly until the band you want appears in the front panel display.
- 2 Press and hold **TUNING +** or **-** until the auto scanning starts.

Scanning stops when the system tunes in a station. "TUNED" and "ST" (for stereo program) appear in the front panel display.



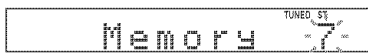
- 3 Press **TUNER MENU**.
- 4 Press **←/↑/↓/→** repeatedly until "Memory?" appears in the front panel display.
- 5 Press **ENTER**.

A preset number appears in the front panel display.

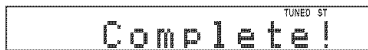


continued

- 6** Press \uparrow/\downarrow to select the preset number you want.



- 7** Press ENTER.
The station is stored.



- 8** Repeat 1 to 7 to store other stations.

To change the preset number

Restart from Step 1.

To change the AM tuning interval

The AM tuning interval can be set to either 10 kHz or 9 kHz.

To change the AM tuning interval, first tune in any AM station, then turn off the system by pressing \mathbb{I}/\mathbb{O} on the system. While holding down FUNCTION (on the system), press \mathbb{I}/\mathbb{O} on the system to turn on the power. If you change the interval, AM preset stations will be erased.

To reset the interval, repeat the same procedure.

Listening to the radio

Preset radio stations in the system's memory first (see "Presetting radio stations" (page 71)).

- 1** Press FUNCTION repeatedly until "FM" or "AM" appears in the front panel display.

The last received station is tuned in.



- 2** Press PRESET + or – repeatedly to select the preset station you want.

Each time you press the button, the system tunes in one preset station.

- 3** Adjust the volume by pressing VOLUME +/-.

To turn off the radio

Press \mathbb{I}/\mathbb{O} .

To listen to non-preset radio stations

Use manual or automatic tuning in Step 2.

For manual tuning, press TUNING + or – repeatedly.

For automatic tuning, press and hold TUNING + or –. Press \blacksquare when you stop the automatic tuning.

TIP

- If an FM program is noisy, press FM MODE so that "MONO" appears in the front panel display. There will be no stereo effect, but the reception will improve. Press the button again to restore the stereo effect.
- To improve reception, reorient the supplied antennas (aerials).
- You can check the frequency by pressing DISPLAY repeatedly (page 57).

Naming preset stations

You can enter a name for preset stations. These names (for example, "XYZ") appear in the system's front panel display when a station is selected.

Note that no more than one name can be entered for each preset station.

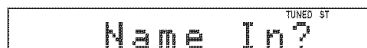
- 1** Press FUNCTION repeatedly until "FM" or "AM" appears in the front panel display.

The last station you received is tuned in.

- 2** Press PRESET + or – repeatedly to select the preset station you want to create an index name for.

- 3** Press TUNER MENU.

- 4** Press $\leftarrow/\uparrow/\downarrow/\rightarrow$ repeatedly until "Name In?" appears in the front panel display.



- 5** Press ENTER.

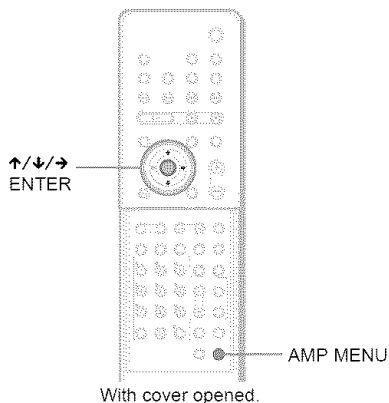
- 6** Create a name by using the cursor buttons.

Press \uparrow/\downarrow to select a character, then press \rightarrow to move the cursor to the next position.

Letters, numbers, and other symbols can be input for a radio station name.

Changing the Brightness of the Front Panel Display

The brightness of the front panel display can be set to either of 2 levels.



- 1** Press AMP MENU.
- 2** Press ↑/↓ repeatedly until “DIMMER” appears in the front panel display, then press ENTER or →.
- 3** Press ↑/↓ to select the brightness of the front panel display.

DIMMER OFF: Bright.

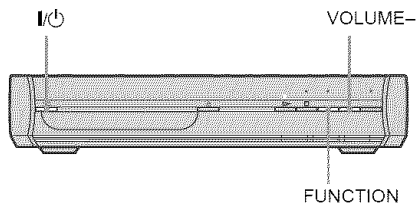
DIMMER ON: The front panel display becomes dark and the Sound Field indicator turns off.

- 4** Press ENTER or AMP MENU.

The AMP menu turns off.

Returning to the Default Settings

You can return the system parameters, such as preset stations, to the default settings.



- 1** Press I/⏻ to turn on the system.
- 2** Press and hold in order FUNCTION, VOLUME-, I/⏻ on the system.

“COLD RESET” appears in the front panel display and the default settings are returned.

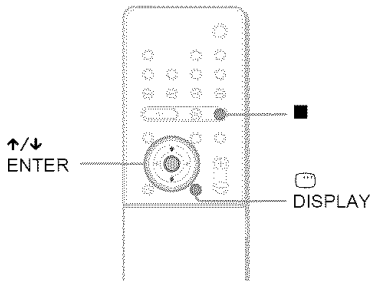
Settings and Adjustments

Using the Setup Display

By using the Setup Display, you can make various adjustments to items such as picture and sound. You can also set a language for the subtitles and the Setup Display, among other things. For details on each Setup Display item, see pages from 76 to 79. For an overall list of Setup Display items, see page 96.

Note

• Playback settings stored in the disc take priority over the Setup Display settings and not all the functions described may work.

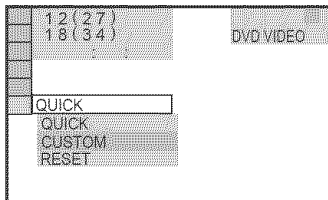


- 1 Press **DISPLAY**. (If a disc is playing, press **■** to stop playback, then press **DISPLAY**.)

The Control Menu appears.

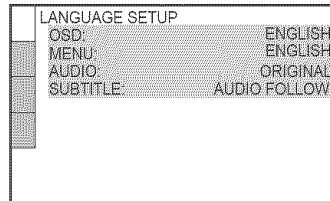
- 2 Press **↑/↓** to select **[SETUP]**, then press **ENTER**.

The options for **[SETUP]** appear.



- 3 Press **↑/↓** to select **[CUSTOM]**, then press **ENTER**.

The Setup Display appears.

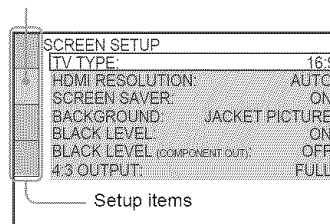


- 4 Press **↑/↓** to select the setup item from the displayed list: **[LANGUAGE SETUP]**, **[SCREEN SETUP]**, or **[CUSTOM SETUP]**. Then press **ENTER**.

The Setup item is selected.

Example: **[SCREEN SETUP]**

Selected item

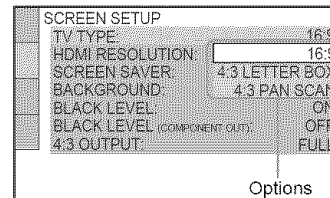


Setup items

- 5 Select an item using **↑/↓**, then press **ENTER**.

The options for the selected item appear.

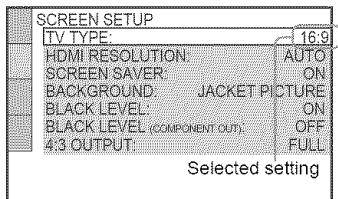
Example: **[TV TYPE]**



Options

- 6 Select a setting using **↑/↓**, then press **ENTER**.

The setting is selected and setup is complete.



To reset all of the [SETUP] settings

1 Select [RESET] in Step 3 and press ENTER.

2 Select [YES] using \uparrow/\downarrow .

You can also quit the process and return to the Control Menu by selecting [NO] here.

3 Press ENTER.

All the settings explained on pages 76 to 79 return to the default settings*. Do not press I/ϕ while resetting the system as it takes a few seconds to complete.

* Except for Parental Control settings.

Note

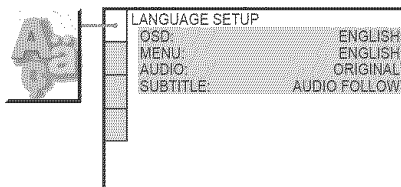
- When you turn the system on after resetting, the guide message appears on the TV screen. To perform the Quick Setup (page 29), press ENTER, to return to normal screen, press CLEAR.

Setting the Display or Sound Track Language

[LANGUAGE SETUP]

[LANGUAGE SETUP] allows you to set various languages for the on-screen display or sound track.

Select [LANGUAGE SETUP] in the Setup Display. To use the display, see "Using the Setup Display" (page 75).



■ [OSD] (On-Screen Display)

Switches the display language on the screen.

■ [MENU] (DVD VIDEO only)

You can select the desired language for the disc's menu.

■ [AUDIO] (DVD VIDEO only)

Switches the language of the sound track.

When you select [ORIGINAL], the language given priority in the disc is selected.

■ [SUBTITLE] (DVD VIDEO only)

Switches the language of the subtitle recorded on the DVD VIDEO.

When you select [AUDIO FOLLOW], the language for the subtitles changes according to the language you selected for the sound track.

Tip

- If you select [OTHERS \rightarrow] in [MENU], [AUDIO], and [SUBTITLE], select and enter a language code from "Language Code List" (page 90) using the number buttons.

Note

- When you select a language in [MENU], [AUDIO], or [SUBTITLE] that is not recorded on the DVD VIDEO, one of the recorded languages will be automatically selected (depending on the disc, the language may not be selected automatically).

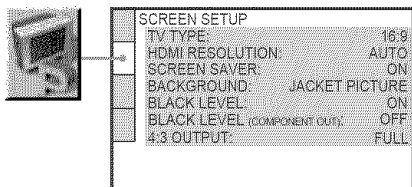
Settings for the Display

[SCREEN SETUP]

Choose settings according to the TV to be connected.

Select [SCREEN SETUP] in the Setup Display. To use the display, see "Using the Setup Display" (page 75).

The default settings are underlined.



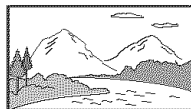
■ [TV TYPE]

Selects the aspect ratio of the connected TV (4:3 standard or wide).

The default setting varies, depending on the country model.

[16:9]	Select this when you connect a wide-screen TV or a TV with a wide mode function.
[4:3 LETTER BOX]	Select this when you connect a 4:3 screen TV. Displays a wide picture with bands on the upper and lower portions of the screen.
[4:3 PAN SCAN]	Select this when you connect a 4:3 screen TV. Automatically displays the wide picture on the entire screen and cuts off the portions that do not fit.

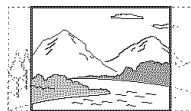
[16:9]



[4:3 LETTER BOX]



[4:3 PAN SCAN]



Note

- Depending on the DVD, [4:3 LETTER BOX] may be selected automatically instead of [4:3 PAN SCAN] or vice versa.

■ HDMI RESOLUTION

Selects the type of video signals output from the HDMI OUT (high-definition multimedia interface out) jack. When you select AUTO (default), the system outputs video signals of the highest resolution acceptable for your TV.

If the picture is not clear, natural or to your satisfaction, try another option that suits the disc and your TV/projector, etc. For details, refer also to the instruction manual supplied with the TV/projector, etc.

[AUTO]	Normally, select this.
[1920 × 1080i]	Sends 1920 × 1080i video signals.
[1280 × 720p]	Sends 1280 × 720p video signals.
[720 × 480p]	Sends 720 × 480p video signals.
[720 × 480i]	Sends 720 × 480i video signals.

Note

- Even when a setting other than [AUTO] is selected and the connected TV cannot accept the resolution, the system automatically adjusts the video signals that are suitable for the TV.

■ [SCREEN SAVER]

The screen saver image appears when you leave the system in pause or stop mode for 15 minutes, or when you play back a Super Audio CD, CD, or DATA CD (MP3 audio) for more than 15 minutes. The screen saver will help prevent your

display device from becoming damaged (ghosting). Press \blacktriangleright to turn off the screen saver.

[ON] Turns on the screen saver.

[OFF] Turns off the screen saver.

■ [BACKGROUND]

The background can be set/displayed during the following:

- When a DVD or Video CD, DATA CD (JPEG files) are stopped.
- When a Super Audio CD, CD, or DATA CD (MP3 audio) are played back or stopped.

[JACKET PICTURE] The jacket picture (still picture) appears, but only when the jacket picture is already recorded on the disc (CD-EXTRA, etc.). If the disc does not contain a jacket picture, the [GRAPHICS] picture appears.

[GRAPHICS] A preset picture stored in the system appears.

[BLUE] The background color is blue.

[BLACK] The background color is black.

■ [BLACK LEVEL]

Selects the black level (setup level) for the video signals output from the jacks other than COMPONENT VIDEO OUT/HDMI OUT.

[ON] Sets the black level of the output signal to the standard level.

[OFF] Lowers the standard black level. Use this when the picture becomes too white.

■ [BLACK LEVEL (COMPONENT OUT)]

Selects the black level (setup level) for the video signals output from the COMPONENT VIDEO OUT jacks.

You cannot select this and the setting is not effective when the system outputs progressive signal.

[OFF] Sets the black level of the output signal to the standard level.

[ON] Raise the standard black level. Use this when the picture becomes too black.

■ [4:3 OUTPUT]

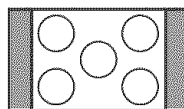
This setting is effective only when you set [TV TYPE] in [SCREEN SETUP] to [16:9] (page 77) or you connect the system to the TV using the HDMI cord. Adjust this to watch 4:3 aspect ratio progressive signals. If you can change the aspect ratio on your progressive format (525p/625p) compatible TV, change the setting on your TV, not the system.

Note

- This setting is effective only when “P AUTO (PROGRESSIVE AUTO)” or “P VIDEO (PROGRESSIVE VIDEO)” is selected by using PROGRESSIVE (page 22).
- This setting is not effective when you use the HDMI OUT jack and set [HDMI RESOLUTION] to [720 × 480i] (page 77).

[FULL] Select this when you can change the aspect ratio on your TV.

[NORMAL] Select this when you cannot change the aspect ratio on your TV. Shows a 16:9 aspect ratio signal with black bands on left and right sides of the image.



16:9 aspect ratio TV

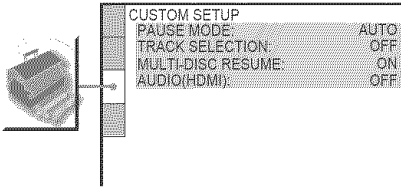
Custom Settings

[CUSTOM SETUP]

Use this to set up playback related and other settings.

Select [CUSTOM SETUP] in the Setup Display. To use the display, see “Using the Setup Display” (page 75).

The default settings are underlined.



■ [PAUSE MODE] (DVD VIDEO/DVD-RW only)

Selects the picture in pause mode.

<u>[AUTO]</u>	The picture, including subjects that move dynamically, is output with no jitter. Normally select this position.
[FRAME]	The picture, including subjects that do not move dynamically, is output in high resolution.

■ [TRACK SELECTION] (DVD VIDEO only)

Gives the sound track which contains the highest number of channels priority when you play a DVD VIDEO on which multiple audio formats (PCM, DTS, MPEG audio, or Dolby Digital format) are recorded.

[OFF]	No priority given.
<u>[AUTO]</u>	Priority given.

Note

- When you set the item to [AUTO], the language may change. The [TRACK SELECTION] setting has higher priority than the [AUDIO] settings in [LANGUAGE SETUP] (page 76). (Depending on the disc, this function may not work.)

- If PCM, DTS, Dolby Digital sound, and MPEG audio tracks have the same number of channels, the system selects PCM, DTS, Dolby Digital sound, and MPEG audio tracks in this order.

■ [MULTI-DISC RESUME] (DVD VIDEO/VIDEO CD only)

Switches the Multi-disc Resume setting on or off. Resume playback point can be stored in memory for up to 40 different DVD VIDEO/VIDEO CD discs (page 39).

<u>[ON]</u>	Stores the resume settings in memory for up to 40 discs.
[OFF]	Does not store the resume settings in memory. Playback restarts at the resume point only for the current disc in the system.

■ AUDIO (HDMI)

Selects the type of audio signal output from the HDMI OUT jack.

[OFF]	The sound is not output from the HDMI OUT jack.
<u>[AUTO]</u>	Outputs current audio signals.
[PCM]	Converts Dolby Digital, DTS (digital theater system), or 96 kHz/24 bit PCM (pulse code modulation) signals to 48 kHz/16 bit PCM (pulse code modulation).

Note

- A loud noise (or no sound) will be output if you connect the system to a TV that is not compatible with DOLBY DIGITAL/DTS (digital theater system) signals and [AUTO] is selected. In this case, select [PCM].

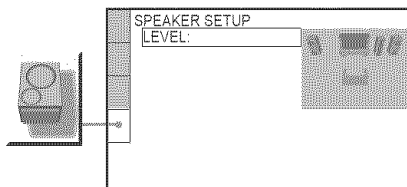
Speaker Setting (Subwoofer)

[SPEAKER SETUP]

To obtain the best possible sound, you can change the level of the subwoofer.

Select [SPEAKER SETUP] in the Setup Display. For details, see “Using the Setup Display” (page 75).

The default setting is underlined.



■ LEVEL

You can change the level of the subwoofer as follows.

[SUBWOOFER] Set this between -6 dB and +6 dB in 1 dB increments.

Tip

- You can also press WOOFER to adjust the subwoofer level.

Additional Information

Precautions

On placement

- Place the system in a location with adequate ventilation to prevent heat build-up in the system.
- At high volume, over long periods of time, the cabinet becomes hot to the touch. This is not a malfunction. However, touching the cabinet should be avoided. Do not place the unit in a confined space where ventilation is poor as this may cause overheating.
- Do not block the ventilation slots by putting anything on the system. The system is equipped with a high power amplifier. If the ventilation slots are blocked, the unit can overheat and malfunction.
- Do not place the system on a soft surface such as a rug and do not block the ventilation holes.
- Do not place the system in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.

On operation

- If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the system. Should this occur, the system may not operate properly. In this case, remove the disc and leave the system turned on for about half an hour until the moisture evaporates.
- When you move the system, take out any disc. If you don't, the disc may be damaged.

On adjusting volume

- Do not turn up the volume while listening to a section with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level section is suddenly played.

On cleaning

- Clean the cabinet, panel, and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.
- If you have any questions or problems concerning your system, please consult your nearest Sony dealer.

On cleaning discs

- Do not use a commercially available CD/DVD cleaning disc. It may cause a malfunction.

On your TV's color

- If the speakers should cause the TV screen to have color irregularity, turn off the TV then turn it on after 15 to 30 minutes. If color irregularity should persist, place the speakers farther away from the set.

IMPORTANT NOTICE

Caution: This system is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are especially susceptible to this.

On moving the system

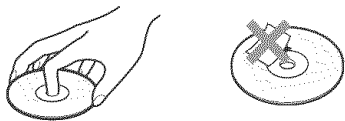
When you carry the system, use the following procedure to protect the inner mechanism.

- 1 Press FUNCTION repeatedly to select "DVD."
- 2 Make sure that the disc is removed from the system.
- 3 Press **■** and **I/⏻** simultaneously. "MECHA LOCK" appears in the front panel display after "STANDBY."
- 4 Remove the AC power cord (mains lead) from the wall outlet (mains).

Notes about the Discs

On handling discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc.



- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as the temperature may rise considerably inside the car.
- After playing, store the disc in its case.

On cleaning

- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.



- Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for vinyl LPs.

This system can only play back a standard circular disc. Using neither standard nor circular discs (e.g., card, heart, or star shape) may cause a malfunction.

Do not use a disc that has a commercially available accessory attached, such as a label or ring.

Troubleshooting

If you experience any of the following difficulties while using the system, use this troubleshooting guide to help remedy the problem before requesting repairs. Should any problem persist, consult your nearest Sony dealer.

Power

The power is not turned on.

- Check that the AC power cord (mains lead) is connected securely.

If "PROTECT" and "UNPLUG" appears alternately in the front panel display.

Immediately unplug the AC power cord (mains lead) and check the following items.

- Are you using only the specified speakers?
- Is anything blocking the ventilation holes of the system?

After checking the above items and fixing any problems, connect the AC power cord (mains lead) again and turn on the system. If the cause of the problem cannot be found even after checking all the above items, consult your nearest Sony dealer.

Picture

There is no picture.

- The video connecting cords are not connected securely.
- The video connecting cords are damaged.
- The system is not connected to the correct TV input jack (page 20).
- The video input on the TV is not set so that you can view pictures from the system.
- You have set progressive format but your TV cannot accept the signal in progressive format. In this case, return the setting to interlace format (the default setting) (page 22).
- Even if your TV is compatible with progressive format (525p/625p) signals, the image may be affected when you set progressive format. In this case, return the setting to interlace format (the default setting) (page 22).
- The system is connected to an input device that is not HDCP (high-bandwidth digital content protection) compliant ("HDMI" on the front panel does not light up). See page 92.
- If the HDMI OUT jack is used for video output, changing the [HDMI RESOLUTION] setting in [SCREEN SETUP] may solve the problem (page 77).

Connect the TV and the system using a video jack other than the HDMI OUT, and switch the TV's input to the connected video input so that you can see the on-screen displays. Change the [HDMI RESOLUTION] setting in [SCREEN SETUP], and switch the TV's input back to HDMI. If the picture still does not appear, repeat the steps and try other options.

Picture noise appears.

- The disc is dirty or flawed.
- If the picture output from your system goes through your VCR to get to your TV, the copy-protection signal applied to some DVD programs could affect picture quality. If you still experience problems even when you connect your system directly to your TV, try connecting your system to your TV's S video input (page 20, 25).

Even though you set the aspect ratio in [TV TYPE] of [SCREEN SETUP], the picture does not fill the screen.

- The aspect ratio on the disc is fixed.

Color irregularity occurs on the TV screen.

The subwoofer and the front speakers in this system are magnetically shielded to prevent magnetic leakage. However, some leakage may occur, as a high-strength magnet is employed. If this happens, check the following items:

- If the speakers are used with a CRT-based TV or projector, install the speakers at least 0.3 m (1.0 ft) from the TV set.
- If the color irregularity persists, turn off the TV set once, then turn it on after 15 to 30 minutes.
- If howling occurs, reposition the speakers farther away from the TV set.
- Make sure that no magnetic object (magnetic latch on a TV stand, health care device, toy, etc.) is placed near the speakers.

Sound

There is no sound.

- The speaker cord is not connected securely.
- Press MUTE on the remote if "MUTING ON" is displayed in the front panel display.
- The system is in pause mode or in Slow-motion Play mode. Press ▷ to return to normal play mode.
- Fast forward or fast reverse is performed. Press ▷ to return to normal play mode.
- Check the speaker connections (page 17).
- The equipment connected to the HDMI OUT jack does not conform to the audio signal format, in this case set [AUDIO (HDMI)] in [CUSTOMSETUP] to [PCM] (page 79).

No sound is output from the HDMI OUT jack.

- The HDMI OUT jack is connected to a DVI (digital visual interface) device (DVI (digital visual interface) jacks do not accept audio signals).
- The HDMI OUT jack does not output Super Audio CD sound.

The left and right sounds are unbalanced or reversed.

- Check that the speakers and components are connected correctly and securely.

There is no sound from the subwoofer.

- Check the speaker connections and settings (page 16).
- When the Setup Disc is used, the volume of the subwoofer may be low. This is by default, and not a malfunction.

Severe hum or noise is heard.

- Check that the speakers and components are connected securely.
- Check that the connecting cords are away from a transformer or motor, and at least 3 meters (10 ft) away from your TV set or a fluorescent light.
- Move your TV away from the audio components.
- The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.
- Clean the disc.

The sound loses stereo effect when you play a VIDEO CD, CD or DATA CD (MP3 audio).

- Set [AUDIO] to [STEREO] by pressing AUDIO (page 67).
- Make sure the system is connected properly.

The surround effect is difficult to hear when you are playing a Dolby Digital, DTS, or MPEG audio sound track.

- Make sure the sound field is set to "FOCUS SURROUND" or "WIDE SURROUND" (page 36).
- Check the speaker connections and settings (page 17).
- Depending on the DVD, the output signal may not be the entire 5.1 channel. It may be monaural or stereo even if the sound track is recorded in Dolby Digital or MPEG audio format.

Operation

Radio stations cannot be tuned in.

- Check that the antenna (aerial) is connected securely. Adjust the antenna (aerial) or connect an external antenna (aerial) if necessary.
 - The signal strength of the stations is too weak (when tuning in with automatic tuning). Use direct tuning.
 - No stations have been preset or the preset stations have been cleared (when tuning by scanning preset stations). Preset the stations (page 71).
 - Press DISPLAY so that the frequency appears in the front panel display.
-

The remote does not function.

- There are obstacles between the remote and the system.
 - The distance between the remote and the system is too far.
 - The remote is not pointed at the remote sensor on the system.
 - The batteries in the remote are weak.
-

The disc does not play.

- There is no disc inserted.
 - The disc is upside down.
Insert the disc with the playback side facing down.
 - The disc is skewed on the disc tray.
 - The system cannot play CD-ROMs, etc. (page 7).
 - The region code on the DVD does not match the system.
 - Moisture has condensed inside the system and may cause damage to the lenses. Remove the disc and leave the system turned on for about half an hour.
-

The MP3 audio track cannot be played.

- The DATA CD is not recorded in the MP3 format that conforms to ISO 9660 Level 1/Level 2 or Joliet.
 - The MP3 audio track does not have the extension “.MP3.”
 - The data is not formatted in MP3 even though it has the extension “.MP3.”
 - The data is not MPEG1 Audio Layer 3 data.
 - The system cannot play audio tracks in MP3PRO format.
 - The [MODE (MP3, JPEG)] setting has been set to [IMAGE (JPEG)] (page 49).
 - If you cannot change the [MODE (MP3, JPEG)] setting, re-load the disc or turn the system off, then on.
-

The JPEG image file cannot be played.

- The DATA CD is not recorded in a JPEG format that conforms to ISO 9660 Level 1/Level 2, or Joliet.
 - It has an extension other than “.JPEG” or “.JPG.”
 - It is larger than 3,072 (width) × 2,048 (height) in normal mode, or more than 3,300,000 pixels in Progressive JPEG.
 - It does not fit the screen (those images are reduced).
 - The [MODE (MP3, JPEG)] setting has been set to [AUDIO (MP3)] (page 49).
 - If you cannot change the [MODE (MP3, JPEG)] setting, re-load the disc or turn the system off, then on.
-

The MP3 audio tracks and JPEG image file starts playing simultaneously.

- [AUTO] has been selected in [MODE (MP3, JPEG)] (page 49).
-

The titles of album/track/file name are not displayed correctly.

- The system can only display numbers and letters of the alphabets. Other characters are displayed as [“*”].
-

A disc does not start playing from the beginning.

- Program play, Shuffle Play, or Repeat Play has been selected.
Press CLEAR to cancel these functions before playing a disc.
 - Resume Play has been selected.
During stop, press ■ on the system or the remote and then start playback (page 39).
 - The title, DVD or PBC menu automatically appears on the TV screen.
-

The system starts playing the disc automatically.

- The DVD features an auto playback function.
-

Playback stops automatically.

- Some discs may contain an auto pause signal.
While playing such a disc, the system stops playback at the auto pause signal.
-

You cannot perform some functions such as Stop, Search, Slow-motion Play, or Repeat Play.

- Depending on the disc, you may not be able to perform some of the operations above. See the operating manual that came with the disc.
-

Messages do not appear on the screen in the language you want.

- In the Setup Display, select the desired language for the on-screen display in [OSD] under [LANGUAGE SETUP] (page 76).
-

The language for the sound track cannot be changed.

- Multilingual tracks are not recorded on the DVD being played.
- The DVD prohibits changing the language for the sound track.

The subtitle language cannot be changed.

- Multilingual subtitles are not recorded on the DVD being played.
- The DVD prohibits changing the subtitles.

The subtitle cannot be turned off.

- The DVD prohibits turning off subtitles.

The angles cannot be changed.

- Multi-angles are not recorded on the DVD being played (page 59).
- The DVD prohibits changing the angles.

A disc cannot be ejected and “LOCKED” appears in the front panel display.

- Contact your Sony dealer or local authorized Sony service facility.

[Data error] appears on the TV screen when playing a DATA CD.

- The MP3 audio track/JPEG image file you want to play is broken.
- The data is not MPEG1 Audio Layer 3 data.
- The JPEG image file format does not conform to DCF.
- The JPEG image file has the extension “.JPG” or “.JPEG,” but is not in JPEG format.

The system does not work normally.

- Disconnect the AC power cord (mains lead) from the wall outlet (mains), then reconnect after several minutes.

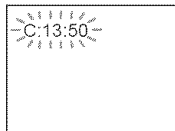
[DEMO PLAY] appears in the front panel display.

- Contact your Sony dealer or local authorized Sony service facility.

Self-diagnosis Function

(When letters/numbers appear in the display)

When the self-diagnosis function is activated to prevent the system from malfunctioning, a 5-character service number (e.g., C 13 50) with a combination of a letter and 4 digits appears on the screen and the front panel display. In this case, check the following table.



First 3 characters of the service number	Cause and/or corrective action
C 13	The disc is dirty. ➔Clean the disc with a soft cloth (page 82).
C 31	The disc is not inserted correctly. ➔Restart the system, then re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. ➔Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 200 – 20,000 Hz; rated 20 W per channel minimum RMS power, with no more than 0.7 % total harmonic distortion from 250 milli watts to rated output.

Amplifier section

Front	Power output (rated): 40 W + 40 W (6 ohms, 1 kHz, THD 1 %) Continuous RMS power output (reference): 50 W + 50 W (6 ohms at 1 kHz, THD 10 %)
Front surround	Power output (rated): 40 W + 40 W (6 ohms, 1 kHz, THD 1 %) Continuous RMS power output (reference): 50 W + 50 W (6 ohms at 1 kHz, THD 10 %)
Subwoofer	Power output (rated): 40 W + 40 W (6 ohms, 100 Hz, THD 1 %) Continuous RMS power output (reference): 50 W + 50 W (6 ohms at 100 Hz, THD 10 %)

* Depending on the sound field settings and the source, there may be no sound output.

Inputs (Analogue)

VIDEO 1/SAT 1, VIDEO 2/SAT 2	Sensitivity: 250/450 mV RMS Impedance: 50 kilohms
TV	Sensitivity: 450 mV RMS Impedance: 50 kilohms

Inputs (Digital)

VIDEO 1/SAT 1, VIDEO 2/SAT 2, TV	Impedance: 75 ohms
----------------------------------	--------------------

Super Audio CD/DVD system

Laser	Semiconductor laser
-------	---------------------

(DVD: $\lambda = 650 \text{ nm}$)

(CD: $\lambda = 790 \text{ nm}$)

Emission duration: continuous

Signal format system

NTSC

Tuner section

System	PLL quartz-locked digital synthesizer system
FM tuner section	
Tuning range	87.5 – 108.0 MHz (100 kHz step)
Antenna (aerial)	FM wire antenna (aerial)
Antenna (aerial) terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)
Antenna (aerial)	AM loop antenna (aerial)
Intermediate frequency	450 kHz

Video section

Outputs	Video: 1 Vp-p 75 ohms S video: Y: 1 Vp-p 75 ohms C: 0.286 Vp-p 75 ohms COMPONENT: Y: 1 Vp-p 75 ohms Pb/Cb, Pr/Cr: 0.7 Vp-p 75 ohms
Input	VIDEO: 1 Vp-p 75 ohms S video: Y: 1 Vp-p 75 ohms C: 0.286 Vp-p 75 ohms

Speakers

Front

Speaker system	Bass reflex, magnetically shielded
Speaker unit	50 mm (2 inches) cone type \times 2
Rated impedance	6 ohms
Dimensions (approx.)	162 \times 78 \times 134 mm (6 $\frac{1}{2}$ \times 3 $\frac{1}{8}$ \times 5 $\frac{1}{8}$ inches) (w/h/d)
Mass (approx.)	0.7 kg (1 lb 9oz)

Subwoofer

Speaker system	Bass reflex, magnetically shielded
Speaker unit	150 mm (6 inches) cone type \times 2
Rated impedance	6 ohms

Dimensions (approx.)	205 × 362 × 489 mm (8 1/8 × 14 1/8 × 19 1/8 inches) (w/h/d)
Mass (approx.)	9.8 kg (21 lb 10 oz)
General	
Power requirements	120 V AC, 60 Hz
Power consumption	On: 85 W Standby: 0.3 W (at the Power Saving Mode)
Dimensions (approx.)	380 × 76 × 293 mm (15 × 3 × 11 5/8 inches) (w/h/d) incl. projecting parts
Mass (approx.)	4.6 kg (10 lb 3 oz)
Supplied accessories	See page 13.

Design and specifications are subject to change without notice.

Glossary

Album

Section of a music piece or an image on a data CD containing MP3 audio tracks or JPEG files.

Chapter

Subdivision of a title on a DVD. A title is composed of several chapters.

Dolby Digital

This movie theater sound format is more advanced than Dolby Surround Pro Logic. In this format, the surround speakers output stereo sound with an expanded frequency range, and a subwoofer channel for deep bass is independently provided. This format is also called "5.1" with the subwoofer channel designed as the 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately for superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs.

Dolby Pro Logic II

Dolby Pro Logic II creates five full-bandwidth output channels from 2 channel sources. This is done using an advanced, high-purity matrix surround decoder that extracts the spatial properties of the original recording without adding any new sounds or tonal colorations.

DTS

Digital audio compression technology developed by Digital Theater Systems, Inc. This technology conforms to 5.1-channel surround. This format comprises of stereo rear channel and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized due to the all channel data being recorded discretely and processed in digitally.

DVD

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a CD.

The data capacity of a single-layer and single-sided DVD, at 4.7 GB (Giga Byte), is 7 times

that of a CD. Furthermore, the data capacity of a dual-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD 9.4 GB, and a dual-layer and double-sided DVD 17 GB. The picture data uses the MPEG 2 format, one of a worldwide standard of digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD also uses the variable rate coding technology that processes allocated data according to the status of the picture.

The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more realistic audio presence.

Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

DVD-RW

A DVD-RW is a recordable and rewritable disc that is the same size as a DVD VIDEO. The DVD-RW has two different modes: VR mode and Video mode. DVD-RWs created in Video mode have the same format as a DVD VIDEO, while discs created in VR (Video Recording) mode allow the contents to be programmed or edited.

DVD+RW

A DVD+RW (plus RW) is a recordable and rewritable disc. DVD+RWs use a recording format that is comparable to the DVD VIDEO format.

File

A JPEG image recorded on a DATA CD. ("File" is an exclusive definition for this system.) A single file consists of a single image.

Film based software, Video based software

DVDs can be classified as Film based or Video based software. Film based DVDs contain the same images (24 frames per second) that are shown at movie theaters. Video based DVDs, such as television dramas or sit-coms, displays images at 30 frames (or 60 fields) per second.

HDMI (high-definition multimedia interface)

HDMI is an interface that supports both video and audio on a single digital connection. The HDMI connection carries standard to high

definition video signals and multi-channel audio signals to AV components such as HDMI equipped TVs, in digital form without degradation. Since the video signals are compatible with the current DVI (digital visual interface) format, HDMI jacks can be connected to DVI (digital visual interface) jacks by way of an HDMI -DVI (digital visual interface) converter cord. The HDMI specification supports HDCP (high-bandwidth digital contents protection), a copy protection technology that incorporates coding technology for digital video signals.

Interlace format (Interlaced scanning)

The Interlace format is the NTSC standard method for displaying TV images at 30 frames per second. Each frame is scanned twice - alternately between the even numbered scanning lines and then odd numbered scanning lines, at 60 times per second.

Multi-angle function

Various angles of a scene, or viewpoints of the video camera are recorded on some DVDs.

Multilingual function

Several languages for the sound or subtitles in a picture are recorded on some DVDs.

Parental Control

A function of the DVD to limit playback of the disc by the age of the users according to the limitation level in each country. The limitation varies from disc to disc; when it is activated, playback is completely prohibited, violent scenes are skipped or replaced with other scenes and so on.

Playback Control (PBC)

Signals encoded on VIDEO CDs (Version 2.0) to control playback.


By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive programs, programs with search functions, and so on.

Progressive format (sequential scanning)

In contrast to the Interlace format, the progressive format can reproduce 60 frames per second by reproducing all scanning lines (525

lines for the NTSC system). The overall picture quality increases and still images, text and horizontal lines appear sharper. This format is compatible with the 525 progressive format.

Region Code

This system is used to protect copyrights. A region number is allocated on each DVD system or DVD disc according to the sales region. Each region code is shown on the system as well as on the disc packaging. The system can play discs that match its region code. The system can also play discs with the “” mark. Even when the region code is not shown on the DVD, the region limit may still apply.

Scene

On a VIDEO CD with PBC (playback control) functions, the menu screens, moving pictures and still pictures are divided into sections called “scenes.”

S-FORCE PRO FRONT SURROUND

Sony’s long-term involvement in surround technology (and the vast amounts of acoustic data accumulated as a result) has led to the development of all-new processing method and advanced DSP to handle this task effectively, which we call S-FORCE PRO FRONT SURROUND. Compared with previous front surround technologies, S-FORCE PRO FRONT SURROUND reproduces a more convincing sense of distance and space, resulting in a true surround sound experience without the need for rear speakers.

S-MASTER

S-MASTER is an all-digital amplifier technology developed by Sony, which effectively minimizes the occurrence of sound fragmentation and jitter, delivering superb dialog clarity and faithful reproduction of the original sound. The compact amplifier section sports a higher power efficiency and improved thermal performance.

Title

The longest section of a picture or music feature on a DVD, movie, etc., in video software, or the entire album in audio software.

Track

Section of a picture or a music piece on a VIDEO CD, CD, or MP3. An album is composed of several tracks (MP3 only).

VIDEO CD

A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of a worldwide standard of digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional audio CDs. There are 2 versions of VIDEO CDs.

- Version 1.1: You can play only moving pictures and sounds.
- Version 2.0: You can play high-resolution still pictures and enjoy PBC functions.

This system conforms to both versions.

Language Code List

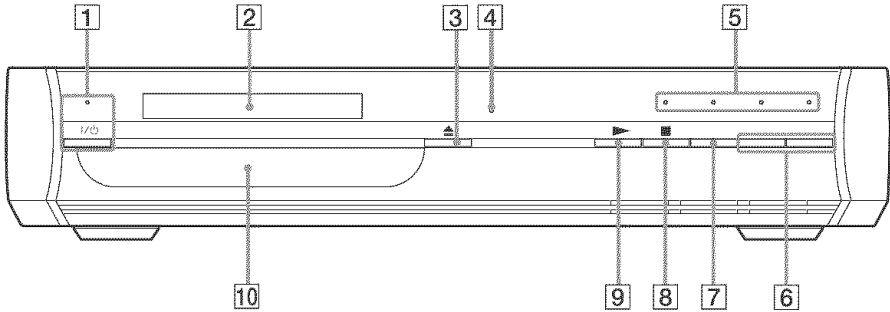
The language spellings conform to the ISO 639: 1988 (E/F) standard.

Code	Language	Code	Language	Code	Language
1027	Afar	1245	Inupiak	1489	Russian
1028	Abkhazian	1248	Indonesian	1491	Kinyarwanda
1032	Afrikaans	1253	Icelandic	1495	Sanskrit
1039	Amharic	1254	Italian	1498	Sindhi
1044	Arabic	1257	Hebrew	1501	Sangho
1045	Assamese	1261	Japanese	1502	Serbo-Croatian
1051	Aymara	1269	Yiddish	1503	Singhalese
1052	Azerbaijani	1283	Javanese	1505	Slovak
1053	Bashkir	1287	Georgian	1506	Slovenian
1057	Byelorussian	1297	Kazakh	1507	Samoaan
1059	Bulgarian	1298	Greenlandic	1508	Shona
1060	Bihari	1299	Cambodian	1509	Somali
1061	Bislama	1300	Kannada	1511	Albanian
1066	Bengali; Bangla	1301	Korean	1512	Serbian
1067	Tibetan	1305	Kashmiri	1513	Siswati
1070	Breton	1307	Kurdish	1514	Sesotho
1079	Catalan	1311	Kirghiz	1515	Sundanese
1093	Corsican	1313	Latin	1516	Swedish
1097	Czech	1326	Lingala	1517	Swahili
1103	Welsh	1327	Laothian	1521	Tamil
1105	Danish	1332	Lithuanian	1525	Telugu
1109	German	1334	Latvian; Lettish	1527	Tajik
1130	Bhutani	1345	Malagasy	1528	Thai
1142	Greek	1347	Maori	1529	Tigrinya
1144	English	1349	Macedonian	1531	Turkmen
1145	Esperanto	1350	Malayalam	1532	Tagalog
1149	Spanish	1352	Mongolian	1534	Setswana
1150	Estonian	1353	Moldavian	1535	Tonga
1151	Basque	1356	Marathi	1538	Turkish
1157	Persian	1357	Malay	1539	Tsonga
1165	Finnish	1358	Maltese	1540	Tatar
1166	Fiji	1363	Burmese	1543	Twi
1171	Faroese	1365	Nauru	1557	Ukrainian
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1181	Frisian	1376	Dutch	1572	Uzbek
1183	Irish	1379	Norwegian	1581	Vietnamese
1186	Scots Gaelic	1393	Occitan	1587	Volapük
1194	Galician	1403	(Afan) Oromo	1613	Wolof
1196	Guarani	1408	Oriya	1632	Xhosa
1203	Gujarati	1417	Punjabi	1665	Yoruba
1209	Hausa	1428	Polish	1684	Chinese
1217	Hindi	1435	Pashto; Pushto	1697	Zulu
1226	Croatian	1436	Portuguese		
1229	Hungarian	1463	Quechua	1703	Not specified
1233	Armenian	1481	Rhaeto-Romance		
1235	Interlingua	1482	Kirundi		
1239	Interlingue	1483	Romanian		

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For more information, refer to the pages indicated in parentheses.

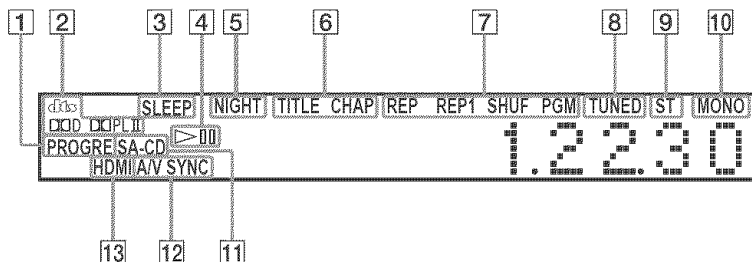
Front panel



- | | |
|---|-------------------------|
| 1 I/⏻ (on/standby indicator) (28, 34, 74) | 6 VOLUME +/- (34, 74) |
| 2 Front panel display (92) | 7 FUNCTION (34, 74) |
| 3 ▲ (open/close) (32, 34) | 8 ■ (stop) (28, 32, 34) |
| 4 Remote sensor (14) | 9 ► (play) (32, 34) |
| 5 Sound Field indicator (36) | 10 Disc tray (32, 34) |

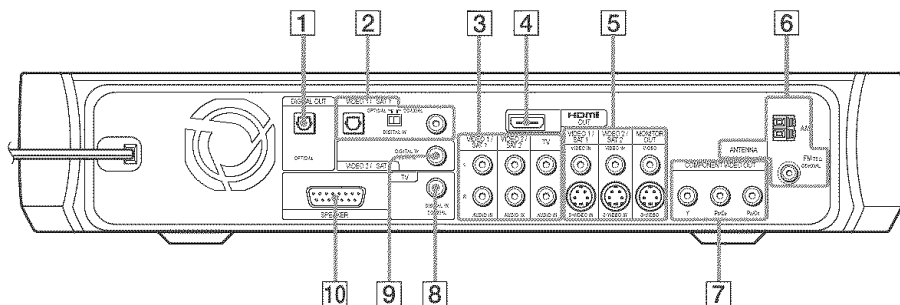
Front panel display

About the indications in the front panel display



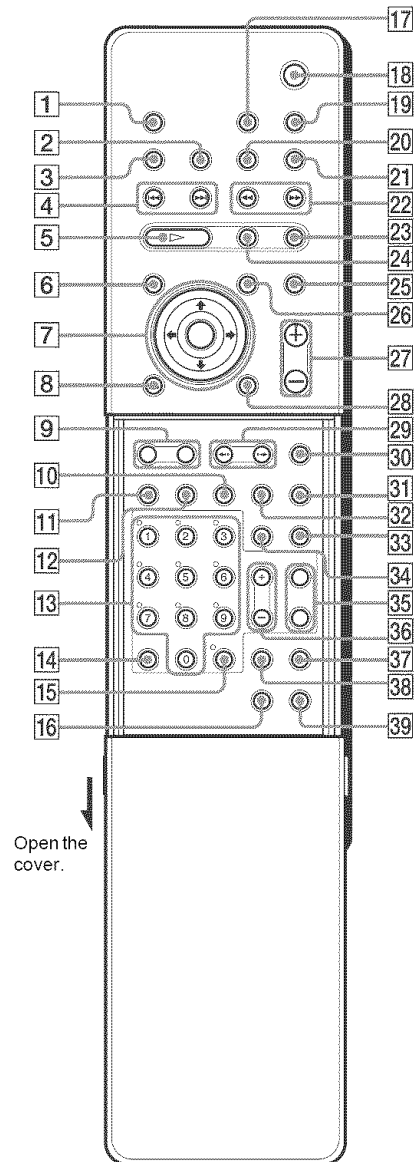
- 1 Lights up when progressive signal is output. (22)
- 2 Current surround format (Except for JPEG and Super Audio CD) (68)
- 3 Lights up in SLEEP mode. (73)
- 4 Playing status (DVD function only)
- 5 Lights up in NIGHT mode. (69)
- 6 Lights up when the time information of a title or chapter appears in the front panel display. (DVD only)
- 7 Current play mode (DVD function only)
- 8 Lights up when a radio station is tuned. (71)
- 9 Lights up when a stereo broadcast is tuned. (71)
- 10 Lights up when listening the radio in monaural effect. (72)
- 11 Current disc type
- 12 Lights up when “SYNC ON” is set in “A/V SYNC.” (Except for Super Audio CD and radio) (51)
- 13 Lights up when the HDMI OUT jack is correctly connected to a HDCP (Highbandwidth Digital Content Protection) compliant device with HDMI or DVI (Digital Visual Interface) input. (20)

Rear panel



- 1 DIGITAL OUT OPTICAL jack (25)
- 2 VIDEO 1/SAT 1 DIGITAL IN (OPTICAL/ COAXIAL) jacks (25)
- 3 AUDIO IN L/R (VIDEO 1/SAT1, VIDEO 2/ SAT 2, TV) jacks (24, 25)
- 4 HDMI OUT jack (20)
- 5 VIDEO/S-VIDEO IN (VIDEO 1/SAT 1, VIDEO 2/SAT 2, MONITOR OUT) jacks (20, 25)
- 6 ANTENNA (AM terminal/FM 75Ω COAXIAL) jack (19)
- 7 COMPONENT VIDEO OUT (Y, Pb/Cb, Pr/ Cr) jacks (20)
- 8 TV DIGITAL IN COAXIAL jack (24)
- 9 VIDEO 2/SAT 2 DIGITAL IN (COAXIAL) jack (25)
- 10 SPEAKER jack (16)

Remote



- 1 TV (64, 65)
- 2 SLEEP (73)
- 3 SOUND FIELD (36)

- 4 ◀◀/▶▶ PRESET -/+, TV CH -/+ (29, 34, 47, 64, 65, 71)
- 5 ▷ (play) (32, 34, 47, 49, 52)
The ▷ button has a tactile dot.*
- 6 TOP MENU (43)
- 7 ◀/▶/↶/↷/ENTER (29, 32, 34, 36, 43, 45, 47, 49, 51, 53, 55, 60, 64, 68, 70, 74, 75)
◀/▶/↶/↷ have tactile dots.*
- 8 ↶ RETURN (45, 47)
- 9 ALBUM -/+ (34, 65)
- 10 ANGLE (59)
- 11 AUDIO (67)
The AUDIO button has a tactile dot.*
- 12 SUBTITLE (59)
- 13 Number buttons (43, 45, 53, 60, 64, 65)
The number 5 button has a tactile dot.*
- 14 CLEAR, -/- (47, 53, 65, 71)
- 15 ENTER
- 16 PROGRESSIVE, TUNER MENU (22, 71)
- 17 TV I/⏻ (on/standby) (64)
- 18 I/⏻ (on/standby) (28, 29, 34)
- 19 THEATRE SYNC (65)
- 20 TV/VIDEO (64, 65)
- 21 FUNCTION (22, 34, 36, 68, 69, 71)
- 22 ◀◀/▶▶ ◀◀/▶▶ SLOW, TUNING -/+ (52, 71)
- 23 ■ (stop) (28, 32, 34, 44, 47, 49, 60, 68, 75)
- 24 || (pause) (35)
- 25 MUTING (34)
- 26 MENU (43, 47)
- 27 VOLUME, TV VOL +/- (34, 64, 71)
The VOLUME, TV VOL + button has a tactile dot.*
- 28 ☰ DISPLAY (10, 34, 44, 49, 53, 55, 56, 60, 75)
- 29 ◀◀/▶▶/◀◀/▶▶/▶▶/▶▶ REPLAY, ADVANCE, STEP (34, 52)
- 30 DISPLAY (56)
- 31 WOOFER (68)
- 32 PICTURE NAVI (47, 55)
- 33 REPEAT (42)
- 34 FM MODE (72)

35 TV CH +/- (64)

The TV CH + button has a tactile dot.*

36 TV VOL +/- (64)

37 NIGHT (68)

38 SA-CD/CD (44)

39 AMP MENU (36, 51, 68, 69, 70, 74)

* Use the tactile dot as a reference when operating the system.

DVD Setup Display List

You can set the following items with the DVD Setup Display.

The order of the displayed items may be different from the actual display.

The default settings are underlined.

LANGUAGE SETUP

- OSD (Select the language you want to use from the displayed language list.)
- MENU (Select the language you want to use from the displayed language list.)
- AUDIO (Select the language you want to use from the displayed language list.)
- SUBTITLE (Select the language you want to use from the displayed language list.)

CUSTOM SETUP

- PAUSE MODE
 - AUTO
 - FRAME
- TRACK SELECTION
 - OFF
 - AUTO
- MULTI-DISC RESUME
 - ON
 - OFF
- AUDIO (HDMI)
 - OFF
 - AUTO
 - PCM

SCREEN SETUP

- TV TYPE
 - 16:9
 - 4:3 LETTER BOX
 - 4:3 PAN SCAN
- HDMI RESOLUTION
 - AUTO
 - 1920 × 1080i
 - 1280 × 720p
 - 720 × 480p
 - 720 × 480i
- SCREEN SAVER
 - ON
 - OFF
- BACKGROUND
 - JACKET
 - PICTURE
 - GRAPHICS
 - BLUE
 - BLACK
- BLACK LEVEL
 - ON
 - OFF
- BLACK LEVEL (COMPONENT OUT)
 - OFF
 - ON
- 4:3 OUTPUT
 - FULL
 - NORMAL

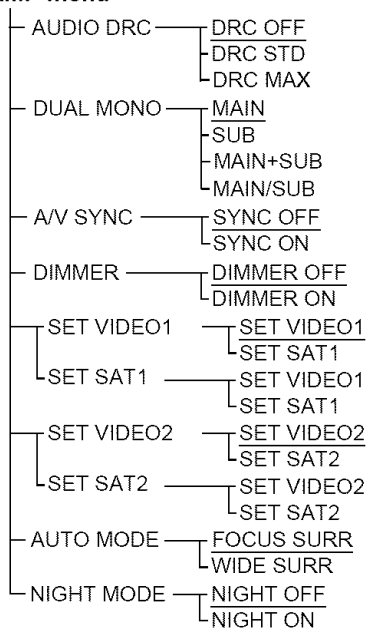
SPEAKER SETUP

- LEVEL: SUBWOOFER (Select the subwoofer level from - 6.0 dB to + 6.0 dB. The default level is 0 dB.)

AMP Menu List

You can set the following items with AMP MENU on the remote.
The default settings are underlined.

AMP menu



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