SONY®

AUDIO IN

DISC 1   DISC 2   DISC 3   DISC 4   DISC 5   ⏏

DAV-X1V

DVD Home Theatre System
Operating Instructions

WARNING

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

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

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

To prevent fire, do not cover the ventilation of the apparatus with news papers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.
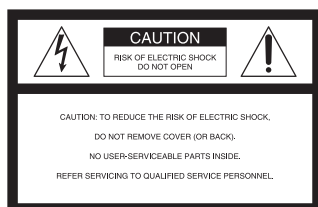
Don't throw away the battery with general house waste, dispose of it correctly as chemical waste.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
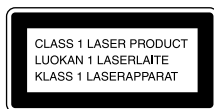
This appliance is classified as a CLASS 1 LASER product. This marking is located on the rear or bottom exterior.

For the customers in the U.S.A

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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 exterior. 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-X1V

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.

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a fuse of the same rating as the supplied one and approved by ASTA or BSI to BS1362, (i.e., marked with mark ⊛ or ⊽ mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover.

If you should lose the fuse cover, please contact your nearest Sony service station.

Precautions

Safety

• AC power cord (mains lead) must be changed only at the qualified service shop.
• 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.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

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.

Table of Contents

Advanced Settings and Adjustments

Additional Information

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
DVD-V	Functions available for DVD VIDEOs, DVD-Rs/DVD-RWs in video mode, and DVD+Rs/DVD+RWs
DVD-VR	Functions available for DVD-Rs/DVD-RWs in VR (Video Recording) mode
VIDEO CD	Functions available for VIDEO CDs (including Super VCDs or CD-Rs/CD-RWs in video CD format or Super VCD format)
Super Audio CD	Functions available for Super Audio CDs
C D	Functions available for music CDs or CD-Rs/CD-RWs in music CD format
DATA-CD	Functions available for DATA CDs (CD-ROMs/CD-Rs/CD-RWs) containing MP3[1] audio tracks, JPEG image files, and DivX[2][3][4] video files
DATA DVD	Functions available for DATA DVDs (DVD-ROMs/DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs) containing MP3[1] audio tracks, JPEG image files, and DivX[2][3][4] video files

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

[2] European models only.

[3] DivX® is a video file compression technology, developed by DivX, Inc.

[4] DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.

This System Can Play the Following Discs

Format of discs	Disc logo
DVD VIDEO	
DVD-RW/ DVD-R	
DVD+RW/ DVD+R	
Super Audio CD (except for a multi-channel playback area)	SUPER AUDIO CD
VIDEO CD (Ver. 1.1 and 2.0 discs)/ Audio CD	
CD-RW/CD-R (audio data) (MP3 files) (JPEG files)	

"DVD+RW," "DVD-RW," "DVD+R," "DVD VIDEO," and the "CD" logos are trademarks.

Note about CDs/DVDs

The system can play CD-ROMs/CD-Rs/CD-RWs recorded in the following formats:
– audio CD format
– video CD format
– MP3 audio tracks, JPEG image files, and DivX video files* of format conforming to ISO 9660 Level 1/Level 2, or its extended format, Joliet

The system can play DVD-ROMs/DVD+RWs/ DVD-RWs/DVD+Rs/DVD-Rs recorded in the following formats:
– MP3 audio tracks, JPEG image files and DivX video files* of format conforming to UDF (Universal Disc Format)

* European models only

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 7
• CD-ROMs recorded in PHOTO CD format
• Data part of CD-Extras
• DVD Audios
• DATA DVDs that do not contain MP3 audio tracks, JPEG image files, or DivX video files*

* European models only
• DVD-RAMs

Also, the system cannot play the following discs:
• A DVD VIDEO with a different region code (page 8, 91)
• A disc that has a non-standard shape (e.g., card, heart)
• 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 some playback functions may not work with some DVD+Rs/DVD+RWs, even if they have been correctly finalized. In this case, view the disc by normal playback. Also some DATA CDs/DATA DVDs created in 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.

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.

Region code

Your system has a region code printed on the rear 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* Digital and Dolby Pro Logic (II) adaptive matrix surround decoder and the DTS** Digital Surround System.

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

* Manufactured under license from Dolby Laboratories.
  "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.
** Manufactured under license from Digital Theater Systems, Inc. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

Getting Started – BASIC –

See Unpacking in Specifications, page 89.

Inserting batteries into the remote

You can control the system using the supplied remote. Insert two R6 (size AA) 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.
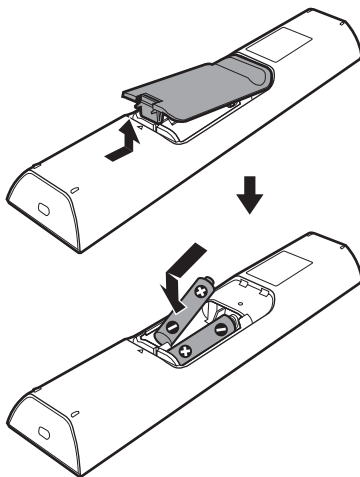
Note
- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not expose the remote sensor to direct light from the sun or lighting apparatus. Doing 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.

Step 1: Connecting the System and TV

This hookup is the basic connection of the system to the speakers and TV. For other TV connections, see page 23. For other component connection, see page 28.

To accept progressive signals, see page 26.

To obtain the best possible front surround sound, install the speakers in the proper position (page 17), and use the supplied Setup Disc to determine the ideal speaker positions (page 21).

Refer to the connection diagram below, and read the additional information from ① to ④ on the following pages.

TV

Front speaker (R)

Front speaker (L)

Conversion connector

For European models (for the TV that has the SCART (EURO AV) jack) For details, see page 14.

Ⓐ Ⓑ

AC power cord (mains lead)

FM wire antenna (aerial)

Subwoofer

AM loop antenna (aerial)

: Signal flow
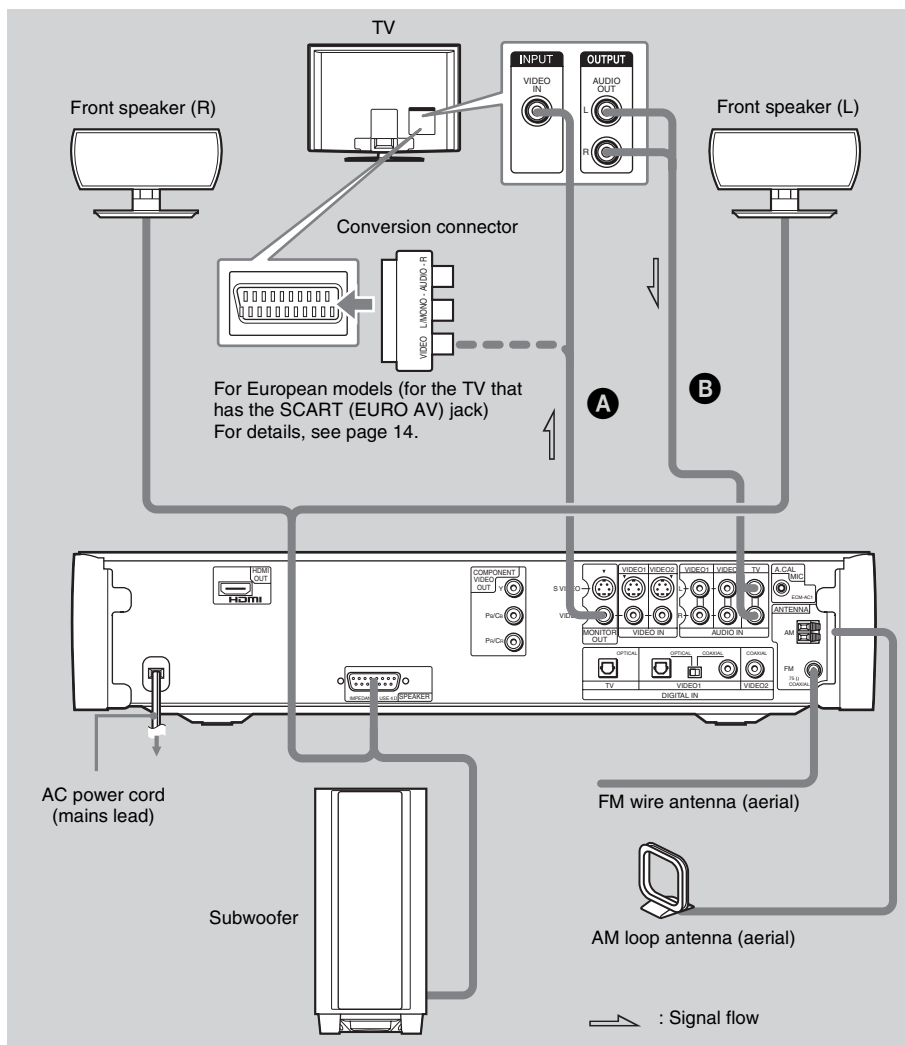
① Connecting the Speakers

Required cords

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

To the front speaker (gray, 5 m (16.4 ft))

To the system

To the subwoofer
(black, 3 m (9.8 ft))

To the front speaker (gray, 5 m (16.4 ft))
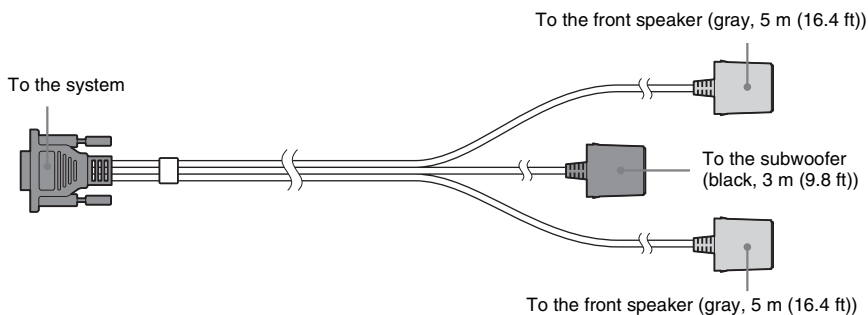
Note
• Do not connect any speakers other than those supplied with this system.

Tip
• By connecting an extension cord (not supplied) to the respective jack(s) of the speaker cord, you can extend the length of the cord.

RK-SX1 (not supplied)
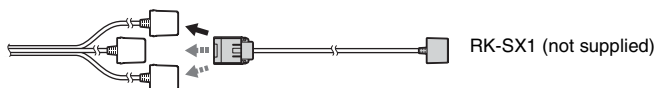
To connect the speakers

Note
• Spread a cloth on the floor to avoid damaging the floor and the speakers.

1   Connect the speaker cord to the system.

Secure the jack by tightening the two screws.
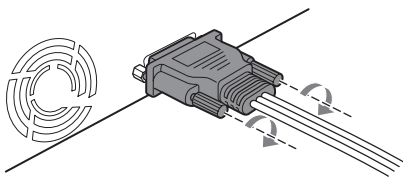
2 Draw the speaker jack through the hole of the speaker stand.

The speaker stands are identical, and either can be used for the left or right speaker.

Speaker stand

Speaker jack

LEFT: For the left speaker
RIGHT: For the right speaker
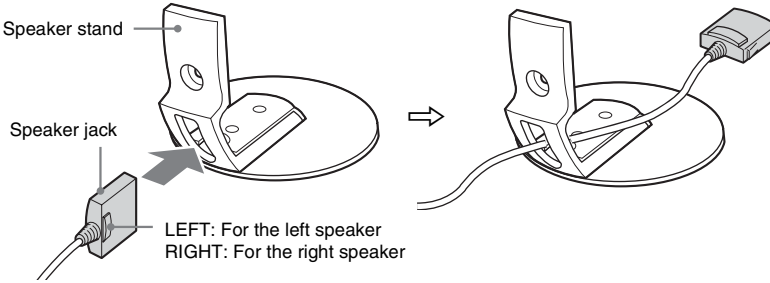
3 Turn the speaker upside down, and connect the speaker jack to the front speaker.

Connect the LEFT jack to the left speaker and the RIGHT jack to the right speaker.

Label
FRONT L (white): Left speaker
FRONT R (red): Right speaker

Bottom of the speaker

Speaker jack
LEFT: For the left speaker
RIGHT: For the right speaker
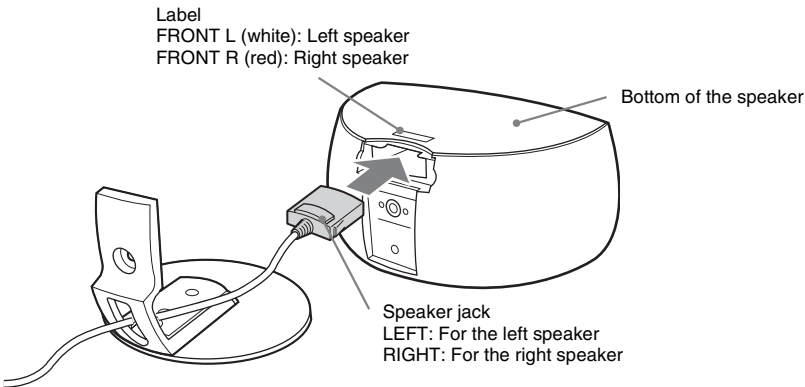
Note
• Exercise care to avoid scratching on the top of the speaker.

4 Turn the speaker stand upside down, and secure the speaker stand to the speaker with the screw.

Screw

13^{US}
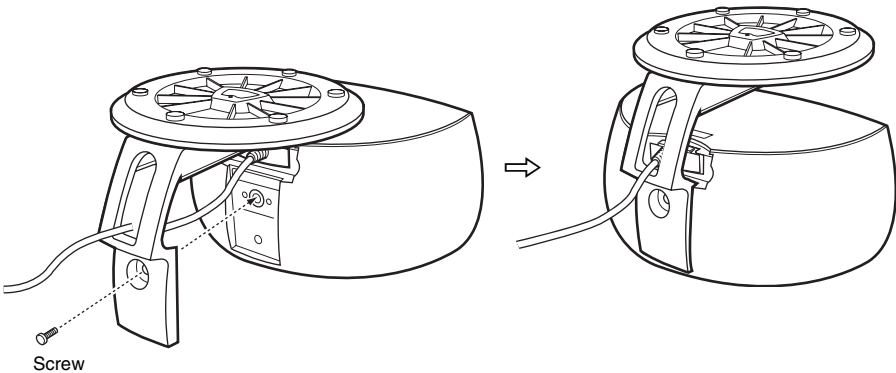
5 **Connect the speaker jack marked WOOFER to the subwoofer.**

WOOFER (black)

Label side face down.

Connect to the subwoofer.
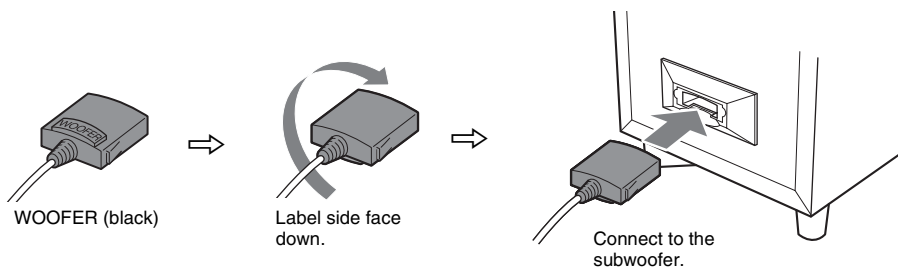
Note

• 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.

② Connecting the TV
Required cords
❹ Video cord

Yellow

❺ Audio cord (not supplied)

White (L/audio)

Red (R/audio)
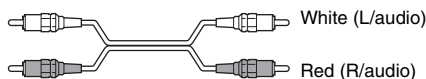
For connecting to the TV with SCART (EURO AV) jack (European models only)

Use the conversion connector (supplied).
Connect the video cord to the conversion connector, then connect the conversion connector to the SCART (EURO AV) jack of the TV.

Conversion connector

System

To the SCART (EURO AV) jack of the TV

Video cord

S VIDEO

VIDEO

MONITOR OUT
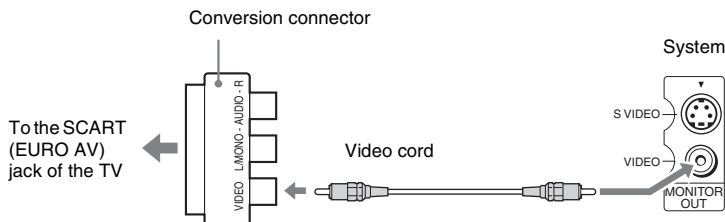
When you connect the TV that has the SCART (EURO AV) jack using the conversion connector, check that the TV conforms to S video or RGB signals. If the TV conforms to S video, change the input mode of the TV to RGB signals. Refer to the operating instructions supplied with the TV to be connected.

③ Connecting the Antenna (Aerial)
To connect the AM loop antenna (aerial)

Plastic stand (supplied)
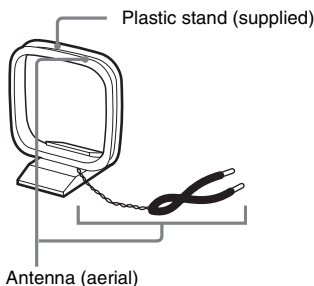
Antenna (aerial)

The shape and the length of the antenna (aerial) is designed to receive AM signals. Do not dismantle or roll up the antenna (aerial).

1 Remove only the loop part from the plastic stand.

2 Set up the AM loop antenna (aerial).
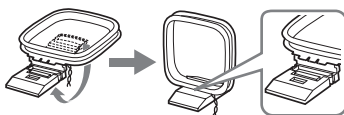
3 Connect the cords to the AM terminals.

Cord (A) or cord (B) can be connected to either terminal.

Insert until this part.

A

B

Insert the cords pushing down the terminal clamp.
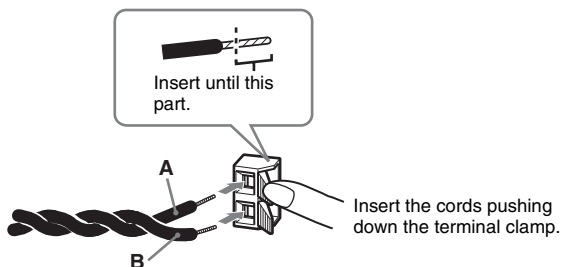
Note
• Do not place the AM loop antenna (aerial) near the system or other AV equipment, as noise may result.

Tip
• Adjust the direction of the AM loop antenna (aerial) for best AM broadcast sound.

4 Make sure the AM loop antenna (aerial) is connected firmly by pulling softly.

To connect the FM wire antenna (aerial)

Connect the FM wire antenna (aerial) to the FM 75 Ω COAXIAL jack.

For the North American models   **For the European models**

FM wire antenna (aerial)
(supplied)

FM wire antenna (aerial)
(supplied)

or

FM 75 Ω COAXIAL jack

FM 75 Ω COAXIAL jack
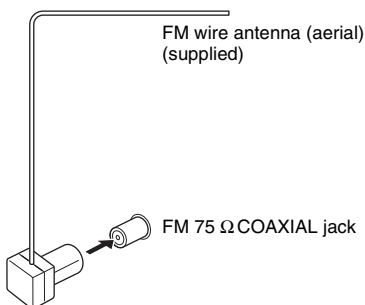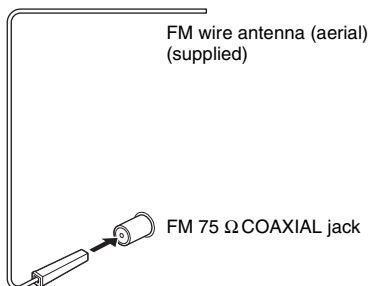
Note

• Be sure to fully extend the FM wire antenna (aerial).

• After connecting the FM wire antenna (aerial), keep it as horizontal as possible.

Tip

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

System

Outdoor FM antenna (aerial)
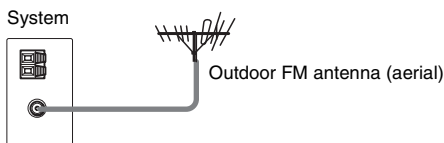
④ Connecting the AC power cord (mains lead)

Before connecting the AC power cord (mains lead) of this system to a wall outlet (mains), connect the speakers to the system.
Install this system so that the power cord can be unplugged from the wall socket immediately in the event of trouble.

Step 2: Installing the Speakers

For the best possible front surround sound, position the speakers as illustrated below.

Side view

0.6 m (2 ft) ~

Top view

Front speaker (L)   Subwoofer

TV   Front speaker (R)

Ⓐ*   Ⓑ*

FOCUS SURROUND area

WIDE STAGE area

* Position the speakers so that the distance between each speaker and the listening position (Ⓐ and Ⓑ) is the same (from 0.0 to 7.0 meters (0 to 23 ft)).
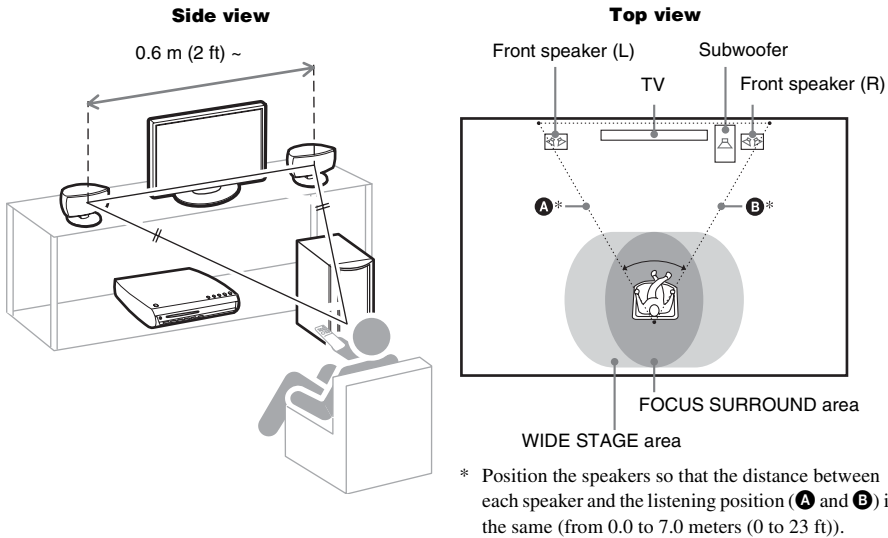
Positioning the speakers

The effective area of surround sound will vary depending on the sound field selection (FOCUS SURROUND or WIDE STAGE). You can change the sound field setting for optimal front surround sound effect.
For details, see "Enjoying Surround Sound by 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 isosceles 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.

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

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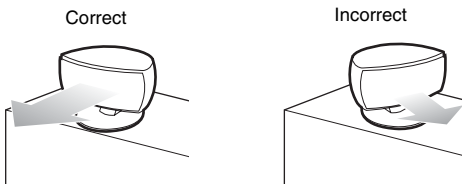
– Do not leave a space in front of the front speakers when placed on a table or rack, etc., as reflection
may occur.

Side view

Correct   Incorrect
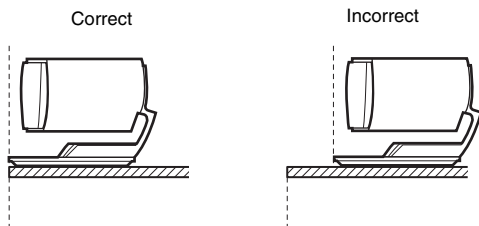
Tip
• When checking the front surround sound effect, make sure the SOUND FIELD setting is set to FOCUS
SURROUND, and one or two people are in the listening position.
• You can attach the front speaker to the speaker stand (not supplied).

WS-FVX1 (not supplied)
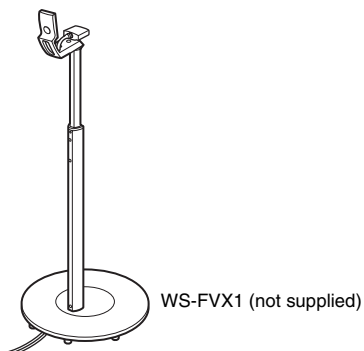
Step 3: Performing the Quick Setup

Follow the steps below to make the minimum number of basic adjustments for using the system.

I/⏻

←/↑/↓/→, ⊕
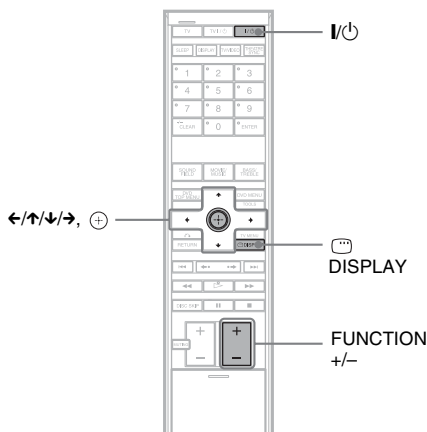
DISPLAY

FUNCTION +/−

1 Turn on the TV.

2 Press I/⏻.

3 Press FUNCTION +/− repeatedly until "DVD" appears in the front panel display.

4 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 20).

5 Press ⊕ without inserting a disc.

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

```
LANGUAGE SETUP
OSD:                    ENGLISH
MENU:                   ENGLISH
AUDIO:                  FRENCH
SUBTITLE:               SPANISH
                        PORTUGUESE
```

6 Press ↑/↓ to select a language.

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

7 Press ⊕.

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

```
SCREEN SETUP
TV TYPE:                          16:9
HDMI RESOLUTION:                  16:9
YCBCR/RGB (HDMI):        4:3 LETTER BOX
SCREEN SAVER:              4:3 PAN SCAN
BACKGROUND:            JACKET PICTURE
BLACK LEVEL:                        ON
BLACK LEVEL (COMPONENT OUT):        OFF
4:3 OUTPUT:                       FULL
```

The displayed items are different depending on the area.

8 Press ↑/↓ 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 78)

■ **If you have a 4:3 standard TV**
[4:3 LETTER BOX] or [4:3 PAN SCAN] (page 78)

9 Press ⊕.

The [AUTO CALIBRATION] display appears.

```
AUTO CALIBRATION

Connect calibration mic. Start
measurement?

            YES
            NO
```

10 Connect the calibration mic to the A.CAL MIC jack on the rear panel and set up the calibration mic at the ear level using a tripod, etc. (not supplied).

The front of each speaker should face the calibration mic, and there should be no obstruction between the speakers and the calibration mic.
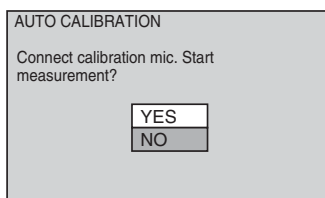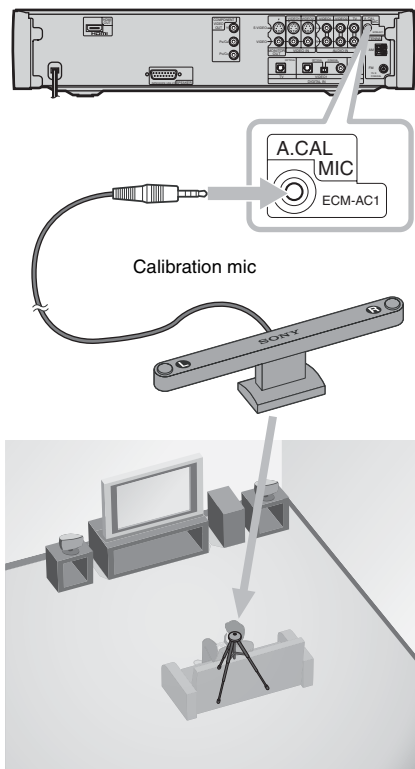
Calibration mic

Note
• Place the calibration mic so that the "FRONT" side of it is pointed toward the front speakers.

11 Press ↑/↓ to select [YES], then press ⊕.

[AUTO CALIBRATION] starts. Be quiet during the measurement.

Note
• Loud test sound is output when [AUTO CALIBRATION] starts. You cannot turn the volume down. Give consideration to children and neighbor.
• Avoid being in the measurement area and making noise during the measurement (which takes about 1 minute), as it may interfere with measurement.

12 Unplug the calibration mic and press ←/→ to select [YES].

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

The distance and audio level of the front speaker (L) and (R), and the audio level of the subwoofer are displayed. (The distance values are expressed in feet and meters for North American models, and meters for European models.)

```
Measurement complete.

FRONT L :        16ft   4.8m   0.0dB
FRONT R :        16ft   4.8m   0.0dB
SUBWOOFER :                  + 4.0dB

If OK, unplug calibration mic and select
"YES".
          YES      NO
```
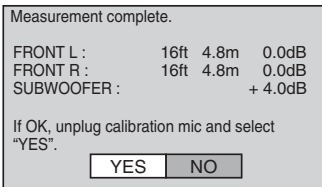
Note
• Reflections from walls or the floor may affect measurements.
• If measurement fails, follow the message then retry [AUTO CALIBRATION].

To quit the Quick Setup

Press DISPLAY in any Step.

Tip
• If you change the position of the speakers, perform [AUTO CALIBRATION] again. See "Calibrating the Appropriate Settings Automatically" (page 73).
• If you want to change any of the settings, see "Using the Setup Display" (page 76).

To recall the Quick Setup display

1 Press DISPLAY when the system is in stop mode.

The Control Menu appears.

2 Press ↑/↓ to select [SETUP], then press ⊕.

The options for [SETUP] appear.

```
1 2 ( 2 7 )                  DVD VIDEO
1 8 ( 3 4 )
    1 : 3 2 : 5 5




QUICK
QUICK
CUSTOM
RESET
```
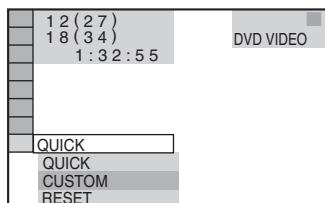
3 Press ↑/↓ to select [QUICK], then press ⊕.

The Quick Setup display appears.

Step 4: Checking the sound

You can check the front surround sound effect by using the supplied Setup Disc.
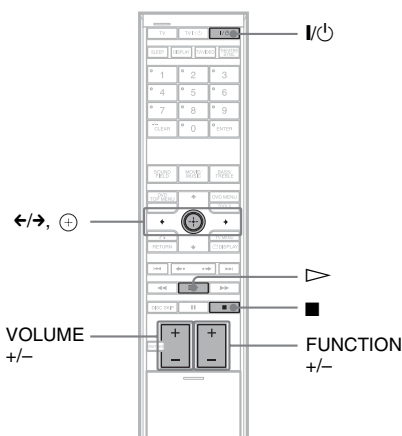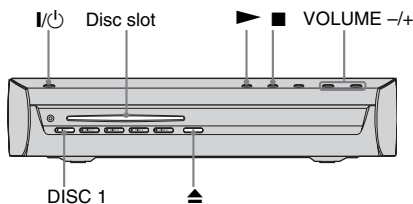
1 Press I/(¹).

The system turns on.

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

2 Press DISC 1.

3 Press ▲.

4 Load the Setup Disc.

Push the disc into the disc slot until the disc is pulled in automatically.

The Setup Disc is drawn into the system automatically.

With the playback side facing down
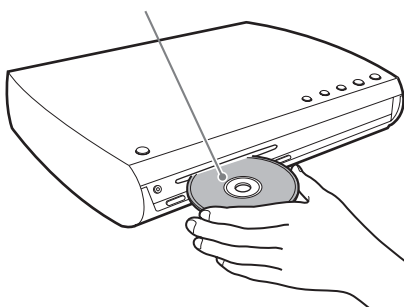
The Setup Disc menu appears.
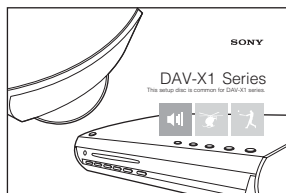
5 Sit in the listening position, then select one of the three options on the screen using ←/→, and press ▷ or ⊕ .

The selected option starts.
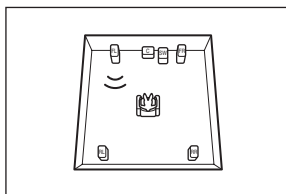
6 Listening carefully to how the option sounds to determine the optimal surround sound effect.

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

7 Press ■ to stop the disc.

8 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.

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.
• If you change the position of the speakers, or you cannot get surround effect sufficiently, perform [AUTO CALIBRATION] again. See "Calibrating the Appropriate Settings Automatically" (page 73).

TV Hookup (Advanced)

Select a hookup suitable for the jacks on your TV.

Connecting the video/audio/HDMI* cords

Sends a played back DVD image to a TV (video connection), and sends a TV sound to the system (audio connection).

For the video connection, check the jacks of your TV, and choose connection method Ⓐ, Ⓑ, Ⓒ, or Ⓓ. Picture quality improves in order from Ⓐ (standard) to Ⓓ (HDMI).

For the audio connection, connect the audio cords (Ⓔ).

Ⓓ
TV with HDMI* jack

To the AUDIO OUT jacks of the TV

Ⓔ

To HDMI* IN

To HDMI* OUT

To COMPONENT VIDEO OUT

To VIDEO   To S VIDEO

Ⓒ
TV with COMPONENT VIDEO IN jacks

Ⓐ
TV with VIDEO IN jack

Ⓑ
TV with S VIDEO IN jack

⟶ : Signal flow
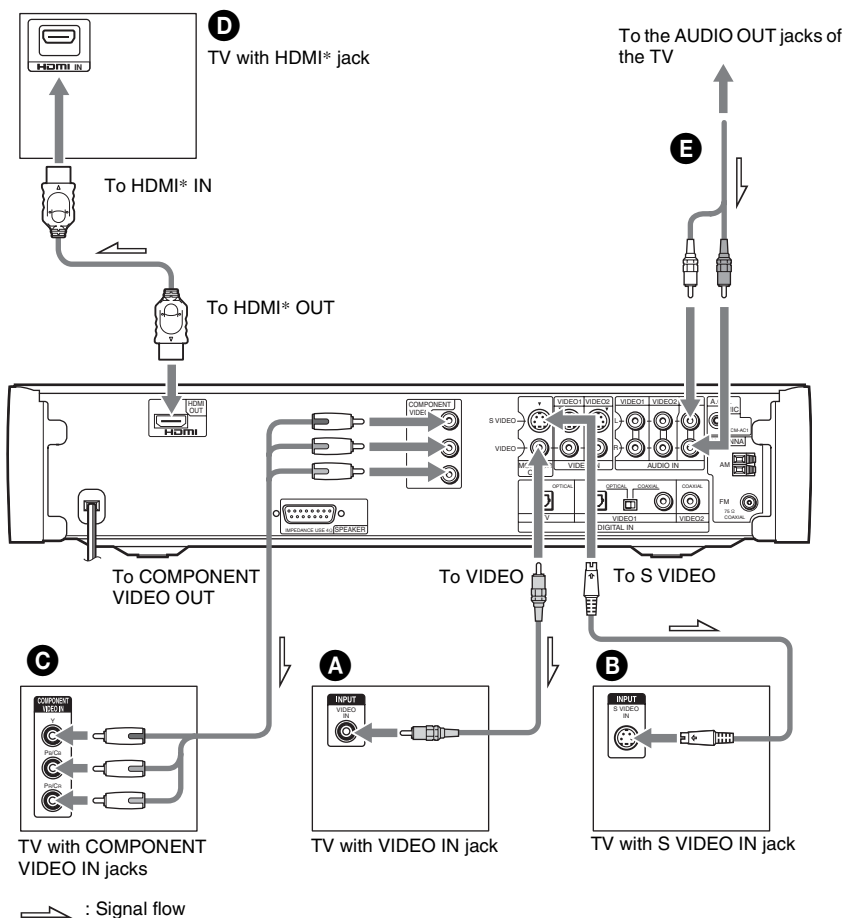
* HDMI (high-definition multimedia interface)

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.

Ⓐ To connect to a TV with the VIDEO IN jack

Connect the video cord.

 Yellow

Note
• The video signal that is input from the VIDEO (VIDEO IN 1 or 2) jack is output from the VIDEO (MONITOR OUT) jack only (it is not output from the S VIDEO (MONITOR OUT) jack).

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

Connect an S video cord (not supplied).

Note
• The video signal that is input from the S VIDEO (VIDEO IN 1 or 2) jack is output from the S VIDEO (MONITOR OUT) jack only (it is not output from the VIDEO (MONITOR OUT) jack).

Ⓒ 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, P_B/C_B, P_R/C_R) instead of the video jacks, your TV monitor must be equipped with via COMPONENT VIDEO IN jacks (Y, P_B/C_B, P_R/C_R). If your TV accepts progressive format signals, you must use this connection and set the output channel of the system to progressive format (page 26).

 Green / Blue / Red

Note
• The video signal is output from the COMPONENT VIDEO OUT jacks, only when the function is set to "DVD."

Ⓓ To connect to a TV with the HDMI (high-definition multimedia interface)/DVI (digital visual interface) input jack

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

Note
• The video signal is output from the HDMI OUT jack, only when the function is set to "DVD."

To connect to a TV with DVI (digital visual interface) input

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

E To connect a TV using the audio cords

Connect the system and the TV using the audio cords.
You can enjoy the TV sound from all speakers in this system.

White (L/audio)
Red (R/audio)
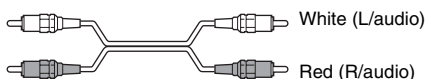
Connecting the TV with the digital optical cord

The TV with the digital optical out jack (such as the TV that has digital satellite tuner, etc.) can be connected to the TV (DIGITAL IN OPTICAL) jack instead of the TV (AUDIO IN) jacks.
The system can accept both the digital and analog signals. Digital signals have priority over analog signals. If the digital signal ceases, the analog signal will be processed after 2 seconds.

To TV (DIGITAL IN OPTICAL)

TV with the digital optical jack   ⇒ : Signal flow
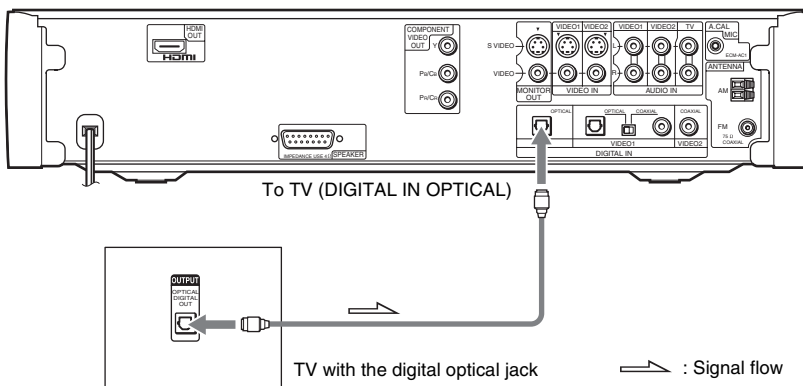
When connecting to a standard 4:3 screen TV

Depending on the disc, the image may not fit your TV screen.
To change the aspect ratio, see page 78.

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.

FUNCTION +/–

PROGRESSIVE

With the cover opened.
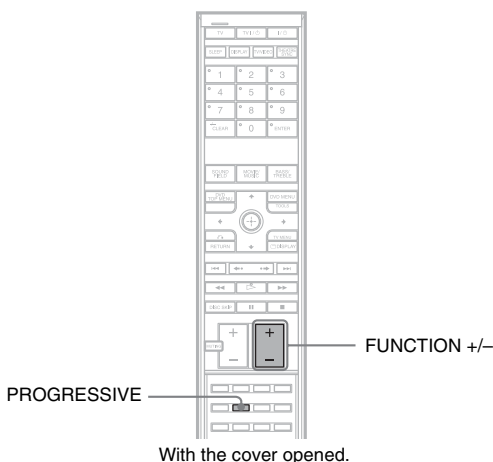
"PROGRE" lights up in the front panel display when the system outputs progressive signals.

1 Press FUNCTION +/– repeatedly to select "DVD."

2 Press PROGRESSIVE.

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

P AUTO (PROGRESSIVE AUTO)
↓
P VIDEO (PROGRESSIVE VIDEO)
↓
INTERLACE
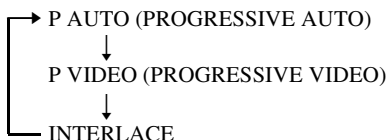
■ **P AUTO (PROGRESSIVE AUTO)**

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 are 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 are 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 (S VIDEO/VIDEO)).

You cannot select INTERLACE while "HDMI" lights up in the front panel display.

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 (S VIDEO or VIDEO) jack are unaffected as they are output in the interlace format.

Other Component Hookup

You can enjoy other component through the speakers of this system by connecting the VIDEO/AUDIO OUT jacks of another component.

VCR or digital satellite receiver, etc.

To VIDEO 2 (S-VIDEO IN) **B**

To VIDEO 2 (VIDEO IN) **A**

To VIDEO 2 (AUDIO IN) **A**

To VIDEO 2 (DIGITAL IN COAXIAL) **B**

To VIDEO 1 (S-VIDEO IN) **B**

To VIDEO 1 (VIDEO IN) **A**

To VIDEO 1 (AUDIO IN) **A**

To VIDEO 1 (DIGITAL IN OPTICAL) **C**

To VIDEO 1 (DIGITAL IN COAXIAL) **B**

VCR or digital satellite receiver, etc.

Video signal: Video connection **A**, **B**
Audio signal: Audio connection **A**, **B**, **C**

: Signal flow

Connecting the video cords

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

Ⓐ 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.
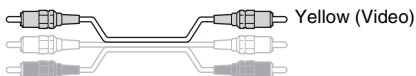
Yellow (Video)

Note
• The video signal that is input from the VIDEO (VIDEO IN 1 or 2) jack is output from the VIDEO (MONITOR OUT) jack only (it is not output from the S VIDEO (MONITOR OUT) jack).

Ⓑ 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).

Note
• The video signal that is input from the S VIDEO (VIDEO IN 1 or 2) jack is output from the S VIDEO (MONITOR OUT) jack only (it is not output from the VIDEO (MONITOR OUT) jack).

Connecting the audio cords

The quality of the audio increases from Ⓐ to Ⓑ, Ⓒ.

Ⓐ 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.

White (L/Audio)
Red (R/Audio)
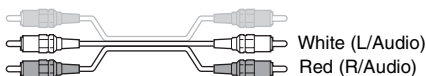
Ⓑ To connect the COAXIAL DIGITAL OUT jack of a component to the DIGITAL IN COAXIAL jack of this system

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

continued

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

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

Note
• Make sure that the connected jack combinations are correct; if you connect the audio cords to VIDEO 1 (AUDIO IN), you should connect the video cord to VIDEO 1 (S-VIDEO IN/VIDEO IN).
• When you connect to the VIDEO 1 DIGITAL IN OPTICAL or COAXIAL jack, set the switch on the rear panel accordingly.
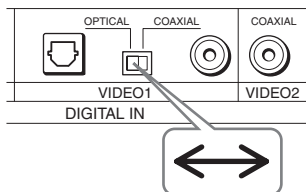
If you connect a digital satellite receiver with a DIGITAL OUT (COAXIAL or OPTICAL) jack

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

Note
• Be sure to make connections securely to avoid hum and noise.

To listen to the portable audio source sound through the system

Connect the audio output jacks of the portable audio source to the AUDIO IN jack on the front panel of the system with the stereo mini-plug cord (not supplied).

System
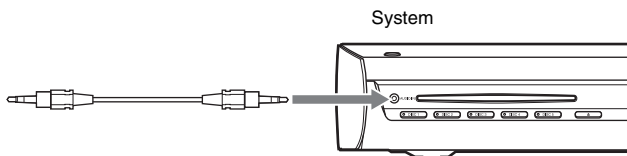
Tip
• When listening to MP3 format recordings using a portable audio source, you can enhance the sound.
 Press FUNCTION +/– to select "AUDIO." Connect the portable audio source. Press SOUND FIELD repeatedly until "P.AUDIO" appears in the front panel display.
 To cancel, select other than "P.AUDIO."

Basic Operations

Playing Discs

DVD-V	DVD-VR	VIDEO CD	SuperAudioCD	CD
DATA-CD	DATA DVD			

I/(¹)   Disc slot   ▶   ■   VOLUME –/+

DISC 1-5 button/
indicator

⏏   FUNCTION

I/(¹)

◄◄/►►

◄•/•►
▷
DISC SKIP
MUTING

■

II

VOLUME
+/–

FUNCTION
+/–
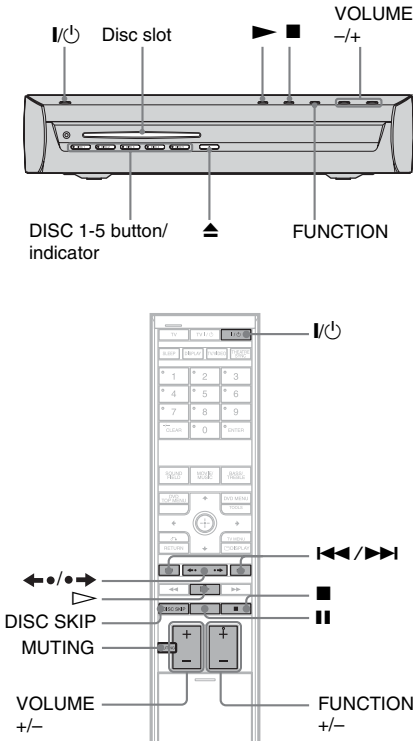
Depending on the DVD VIDEO or VIDEO CD, some operations may be different or restricted. Refer to the operation details supplied with your disc.

1 **Turn on your TV.**

2 **Switch the input selector on the TV to this system.**

3 **Press I/(¹).**

The system turns on.
Unless the system is set to "DVD," press FUNCTION +/– to select "DVD."

4 **Press DISC 1-5.**

Press the button of the disc number you want.

When no disc is in the disc stocker you selected, "No Disc" appears. Perform next Step while "*DISC-1* (eg., 2-5)" flashes.

5 **Press ⏏.**

The selected DISC 1-5 indicator lights up in green.

6 **Load a disc.**

Push the disc into the disc slot until the disc is pulled in automatically.
The disc is drawn into the system automatically.

With the playback side facing down
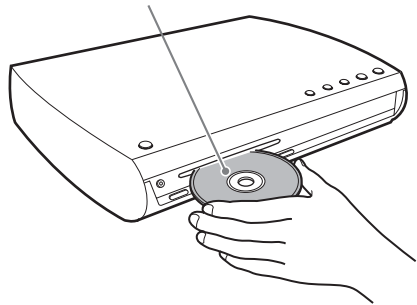
To load other discs, press DISC 1-5 (that is not loaded with a disc) and ⏏ and load the disc.

The system starts playback (continuous play) of the disc whose DISC 1-5 indicator is green.

To play back other discs, press DISC SKIP on the remote or DISC 1-5 of the system.

Press VOLUME –/+ to adjust the volume on the system.

The volume level appears on the TV screen and in the front panel display.

Note

• Depending on the system status, the volume level may not appear on the TV screen.

Tip

• The DISC 1-5 indicators change color as follows:
  – green: the disc is selected, or the disc is being played back.
  – off: there is no disc.

– orange: a disc is loaded in the disc stocker but not selected.

– The indicator turns off if an unplayable disc is inserted.

To save the power in standby mode

Press **I/**⏻ while the system turns on. To cancel standby mode, press **I/**⏻ once.

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.
Change a disc while playing another disc	DISC SKIP
Play the desired disc directly	DISC 1-5 on the system.
Stop play and remove the desired disc	DISC 1-5 and ▲ on the system.
Replay the previous scene*	◀● (instant replay) during playback.
Briefly fast forward the current scene**	●▶ (instant advance) during playback.

* DVD VIDEOs/DVD-RWs/DVD-Rs only. The button can be used except for DivX video files (European models only).

** DVD VIDEOs/DVD-RWs/DVD-Rs/DVD+RWs/ DVD+Rs only. The button can be used except for DivX video files (European models only).

Note
• You may not be able to use the Instant Replay or Instant Advance function with some scenes.

About DVD 5-DISC changer

Stocker

Disc

DISC 1
DISC 2
DISC 3
DISC 4
DISC 5
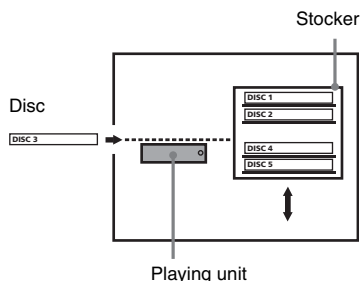
Playing unit

The disc changer consists of a playing unit and a stocker which transports the discs to the disc slot and the playing unit.

For example, if you press DISC 3, the stocker moves until the DISC 3 comes to the position of the playing unit and then moves the DISC 3 over the playing unit.

Note
• Do not insert discs while playing.
• Noise may come from the disc changer when changing discs or turning the system on and off. However, this is just noise produced by the operation of the internal mechanisms and does not indicate a malfunction.
• 8 cm (3-inch) CDs or DVDs cannot be stored in the stocker.
• Do not insert an 8 cm (3-inch) CD with an 8 cm (3-inch) adapter. It may damage the system and disc.

Selecting the Component

With the cover opened.

↑/↓/→, ⊕

FUNCTION +/−

AMP MENU
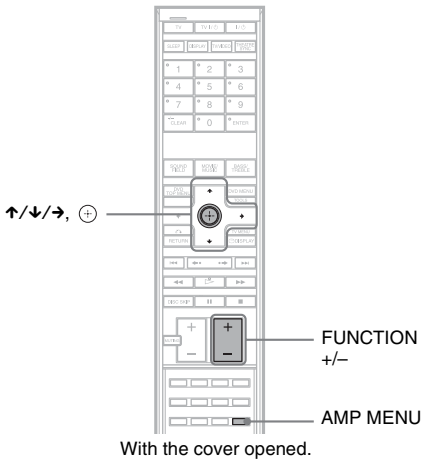
Selecting the connected component

You can use a VCR or other components connected to the VIDEO 1 or 2 jacks on the rear panel. Refer to the operation manual supplied with the components for further information on the operation.

Press FUNCTION +/− repeatedly until "VIDEO1"or "VIDEO2"appears in the front panel display.

Each time you press FUNCTION +/−, the mode of the system changes in the following sequence.

DVD → TUNER FM → TUNER AM → VIDEO1 → VIDEO2 → TV → AUDIO → DVD → …

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

Changing the input level of the sound from connected components

You can change the input sensitivity of the AUDIO IN (VIDEO 1, VIDEO2, TV) jacks on the rear panel and the AUDIO jack on the front panel.

1. **Press FUNCTION +/− repeatedly until "VIDEO1," "VIDEO2," "TV," or "AUDIO" appears in the front panel display.**

2. **Press AMP MENU.**

3. **Press ↑/↓ repeatedly until "ATTENUATE" appears in the front panel display, then press ⊕ or →.**

4. **Press ↑/↓ to select a setting.**
   • ATT ON: attenuates the input level. Set this if distortion occurs during listening.
   • ATT OFF: normal input level. Set this if the input level is low.

5. **Press ⊕ .**

6. **Press AMP MENU.**
   The AMP menu turns off.

Enjoying TV or VCR Sound from the speaker system

You can enjoy TV or VCR sound from the speakers in this system.
For details, see "TV Hookup (Advanced)" (page 23) and "Other Component Hookup" (page 28).

Note

• When you use both the analog connection and the digital connection at the same time, the digital connection takes priority (VIDEO 1, VIDEO2, TV).

SOUND FIELD
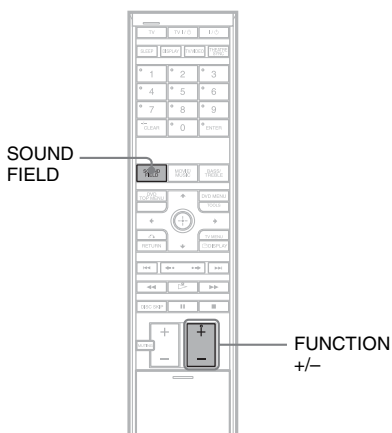
FUNCTION +/–

1 **Press FUNCTION +/– repeatedly until "VIDEO1," "VIDEO2," or "TV" 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.
For details of sound field, see page 36.

Selecting the Movie or Music Mode

DVD-V   DVD-VR   VIDEO CD   SuperAudioCD   CD

DATA-CD   DATA DVD

You can choose a suitable sound mode for movies or music.
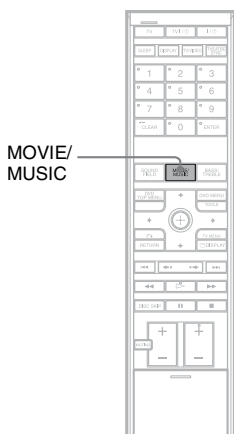
MOVIE/
MUSIC

Press MOVIE/MUSIC during playback.

Press MOVIE/MUSIC repeatedly until the mode you want lights up in the front panel display. The default setting is underlined.

- <u>AUTO</u>: selects the mode automatically to produce the sound effect depending on the disc.
- MOVIE: provides the sound for movies.
- MUSIC: provides the sound for music.

Tip
- When the movie or music mode is selected, "MOVIE" or "MUSIC" is displayed in the front panel display.

Enjoying Surround Sound by Using Sound Field

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

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.

Front surround indicator

SOUND FIELD

←/↑/↓/→, ⊕
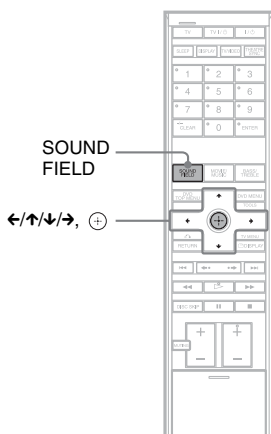
Press SOUND FIELD.

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. You can also select the sound field by pressing ←/↑/↓/→.
The front surround indicator indicates the current surround status.

All sound field

Sound field	Display
AUTO	AUTO
FOCUS SURROUND	FOCUS SUR[1]
WIDE STAGE	WIDE STAGE[1][2]
2CH STEREO	2CH STEREO
PORTABLE AUDIO ENHANCER	P. AUDIO
NIGHT	NIGHT

[1]Using S-Force PRO Front Surround technology.

[2]Not available when playing a CD or DATA-CD, listening to the radio (FM/AM), and selecting the AUDIO function.

Tip
- The system memorizes the last sound field selected for each function mode.
  However, the system does not memorize the last sound field for the FM and AM functions individually – only the tuner function in general.
- If the AC power cord (mains lead) is disconnected for a long period of time, the system may return to its default settings.

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 STAGE) 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 STAGE) in AUTO, follow the steps below:

1 Press AMP MENU.

2 Press ↑/↓ repeatedly until "AUTO.M.SET" appears in the front panel display, then press ⊕ or →.

3 Press ↑/↓ to select "FOCUS SUR" or "WIDE STAGE."

4 Press ⊕.

5 Press AMP MENU.

The AMP menu turns off.

Note

• When you set to "AUTO.M.SET," you cannot set the sound field to "2CH STEREO."

Enjoying the Front Surround Sound System

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

■ FOCUS SURROUND

This mode is ideal for delivering a realistic surround effect to a small group of listeners within a defined area.

■ WIDE STAGE

This mode will deliver a wide and impressive sound stage. As the sound catchment area is increased, a greater number of listeners can be accommodated.

Top view

Front speaker (L)   Subwoofer
          TV   Front speaker (R)

FOCUS SURROUND area
WIDE STAGE area
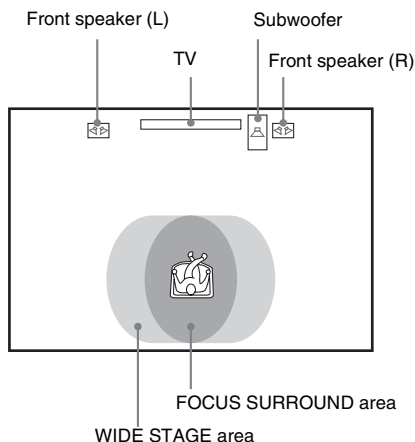
2 channel source output

■ 2 CH STEREO

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

Enjoying the portable audio source

■ PORTABLE AUDIO ENHANCER

This mode produces a clear enhanced sound image from your portable audio device. This mode is ideal for MP3 and other compressed music.

Enjoying the sound at low volume

■ NIGHT

You can enjoy sound effects or dialogue, as you would in a movie theatre, even at low volume. Useful for watching movies at night.

Note

• When the system receives DVD multi-channel signals or Dolby Digital multiplex broadcast signals, the default AUTO setting is FOCUS SURROUND. (You can change the AUTO setting to WIDE STAGE 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.

• Even if you select "WIDE STAGE," the surround effect does not work when you play a CD or DATA CD, listen to the radio (FM/AM), or select the AUDIO function.

Adjusting the Bass Level and Treble Level

You can adjust the bass and treble level easily.

BASS/
TREBLE

↑/↓, ⊕
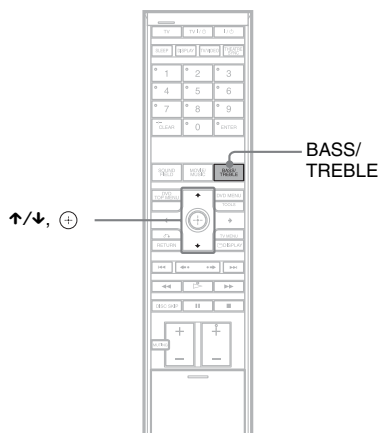
1 Press BASS/TREBLE repeatedly until "BASS" or "TREBLE" appears in the front panel display.

- BASS: adjusts the bass level (–15 dB – +10 dB, 1 dB increments).
- TREBLE: adjusts the treble level (–6 dB – +6 dB, 1 dB increments).

2 Press ↑/↓ to adjust.

The adjusted value appears in the front panel display.

3 Press ⊕.

Note
- When you perform the auto calibration (page 73), the bass level setting is readjusted.

Searching for a Particular Point on a Disc

(Scan, Slow-motion Play, Freeze Frame)

`DVD-V` `DVD-VR` `VIDEO CD` `Super Audio CD` `C D`
`DATA-CD` `DATA DVD`

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

Note
- Depending on the DVD/DivX video*/VIDEO CD, you may not be able to do some of the operations described.
- * European models only.

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

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

Playback direction

×2▶ → 1▶▶ → 2▶▶ → 3▶▶

3▶▶ (DVD VIDEO/DVD-VR mode/DivX video*/
VIDEO CD only)
×2▶ (DVD VIDEO/Super Audio CD/CD only)

* European models only.

Opposite direction

×2◀ → 1◀◀ → 2◀◀ → 3◀◀

3◀◀ (DVD VIDEO/DVD-VR mode/DivX video*/
VIDEO CD only)
×2◀ (DVD VIDEO only)

* European models only.
With each press, playback speed becomes faster.

Watching frame by frame (Slow-motion Play)
(DVD VIDEO, DVD-R, DVD-RW, DivX video*, VIDEO CD only)

* European models only.

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

Playback direction
   2 ❙▶ ↔ 1 ❙▶

Opposite direction (DVD VIDEO only)
   2 ◀❙ ↔ 1 ◀❙

Playing one frame at a time (Freeze Frame)
(except for Super Audio CD, CD, MP3, and JPEG)

When the system is in the pause mode, press ❙❙▶ (step) to go to the next frame. Press ◀❙❙ (step) to go to the preceding frame (DVD VIDEO/DVD-R/DVD-RW only). To return to normal playback, press ▷.

Note
- You cannot search for a still picture on a DVD-R/DVD-RW in VR mode.
- For DATA CDs/DATA DVDs, this function works only for DivX video files. (European models only)

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

DVD-V   DVD-VR   VIDEO CD   SuperAudioCD   C D

DATA-CD   DATA DVD

You can search a DVD by title or chapter, and you can search a VIDEO CD/Super Audio CD/CD/DATA CD/DATA DVD 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/DATA DVD with JPEG image files, press DISPLAY twice.)

The Control Menu appears.

2 Press ↑/↓ to select the search method.

The display will show different items depending on the disc.

  [TITLE], [TRACK], [SCENE]

  [CHAPTER], [INDEX]

  [TIME/TEXT]

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

  [TRACK]

  [INDEX]

  [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.

```
12(27)
18(34))       DVD VIDEO
T  1:32:55
```

Selected row

3 Press ⊕.

[** (**)] changes to [– – (**)].

```
12(27)
--(34)        DVD VIDEO
T  1:32:55
```
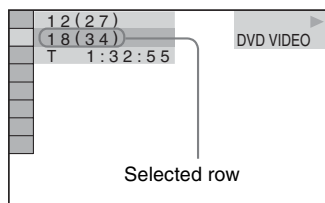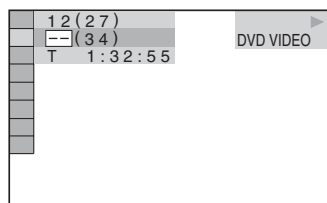
4 Press ↑/↓ or the number buttons to select the title, chapter, track, index, scene, etc., number you want to search for.

If you make a mistake

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

5 Press ⊕.

The system starts playback from the selected number.

To search for a scene using the time code (DVD VIDEO and DVD-VR mode only)

1 In Step 2, select [TIME/TEXT].

[T **:**:**] (playing time of the current title) is selected.

2 Press ⊕.

[T **:**:**] changes to [T --:--:--].

3 Input the time code using the number buttons, then press ⊕.

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-R/DVD-RW), track (VIDEO CD/Super Audio CD/CD), or file* (DATA CD/DATA DVD (DivX video)) by pressing the number buttons and ⊕.

* European models only.

Note

• You cannot search for a scene on a DVD+R/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.

1 **Press PICTURE NAVI during playback.**

The following display appears.

```
┌──────────────────────────────────┐
│  ▦  CHAPTER VIEWER → ENTER        │
│                                    │
│                                    │
└──────────────────────────────────┘
```
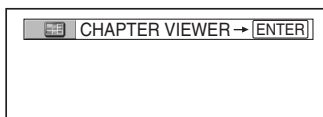
2 **Press PICTURE NAVI repeatedly to select an item.**

• [TITLE VIEWER] (DVD VIDEO only)
• [CHAPTER VIEWER] (DVD VIDEO only)
• [TRACK VIEWER] (VIDEO CD/Super VCD only)

3 **Press ⊕.**

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

```
┌──────┬──────┬──────┬──┐
│ 1    │ 2    │ 3    │  │
├──────┼──────┼──────┤  │
│ 4    │ 5    │ 6    │  │
├──────┼──────┼──────┼──┤
│ 7    │ 8    │ 9    │▼ │
└──────┴──────┴──────┴──┘
```

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

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.

Resuming Playback from the Point Where You Stopped the Disc

(Resume Play)

| DVD-V | DVD-VR | VIDEO CD | Super Audio CD | CD |

| DATA-CD | DATA DVD |

When you stop the disc, the system remembers the point where you pressed ■ and "Resume" appears in the front panel display. As long as you do not remove the disc, Resume Play will work even if the system enters standby mode by pressing I/⏻.

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

"Resume" appears in the front panel display.

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.

Note
- Depending on where you stop the disc, the system may not resume playback from exactly the same point.
- The point where you stopped playing may be cleared when:
  – you eject the disc.
  – the system enters standby mode (DATA CD/DATA DVD only).
  – you change or reset the settings on the Setup Display.
  – you change the function by pressing FUNCTION +/–.
  – you disconnect the AC power cord (mains lead).
- For DVD-Rs/DVD-RWs in VR mode, VIDEO CDs, Super Audio CDs, CDs, DATA CDs, and DATA DVDs, the system remembers the resume playback point for the current disc.
- The resume point is cleared when:
  – you select another disc.
- Resume Play does not work during Program Play and Shuffle Play.
- This function may not work properly with some discs.

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

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 80).

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

Note
- If [MULTI-DISC RESUME] in [CUSTOM SETUP] is set to [OFF] (page 80), the resume point is cleared when you change the function by pressing FUNCTION +/–.

Creating Your Own Program

(Program Play)

VIDEO CD Super Audio CD C D

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.

Note
• You can program the track on the current disc only.

1 Press ⬚ DISPLAY.

The Control Menu appears.

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

The options for [PROGRAM] appear.

```
          6 (14)
     T    2 : 5 0          CD

     OFF
       OFF
       SET →
       ON
```
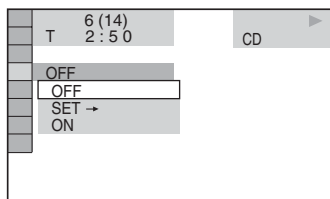
3 Press ↑/↓ to select [SET →], then press ⊕.

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

```
PROGRAM                    0:00:00
   ALL CLEAR               T
 1. TRACK
 2. TRACK  – –              – –
 3. TRACK  – –              01
 4. TRACK  – –              02
 5. TRACK  – –              03
 6. TRACK  – –              04
 7. TRACK  – –              05
                           06
```

Tracks recorded   Total time of the
on a disc   programmed tracks
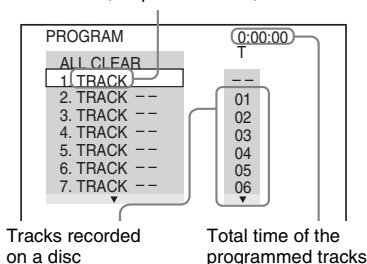
4 Press →.

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

```
PROGRAM                    0:00:00
   ALL CLEAR               T
 1. TRACK  – –              – –
 2. TRACK  – –              01
 3. TRACK  – –              02
 4. TRACK  – –              03
 5. TRACK  – –              04
 6. TRACK  – –              05
 7. TRACK  – –              06
```
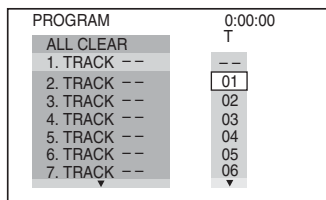
5 Select the track you want to program.

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

Selected track

```
PROGRAM                   (0:15:30)
   ALL CLEAR
 1. TRACK  (0 2)            – –
 2. TRACK  – –              01
 3. TRACK  – –              02
 4. TRACK  – –              03
 5. TRACK  – –              04
 6. TRACK  – –              05
 7. TRACK  – –              06
```

Total time of the programmed tracks
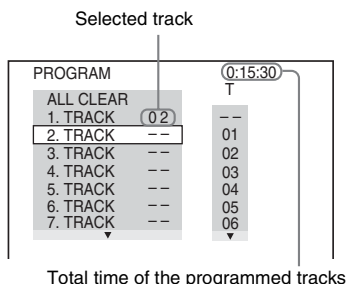
6 To program other tracks, repeat steps 4 to 5.

The programmed tracks are displayed in the selected order.

7 Press ▷ to start Program Play.

Program Play starts.
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 3. To play the same program again, select [ON] in Step 3 and press ⊕.

To turn off the Control Menu

Press ⬚ DISPLAY repeatedly until the Control Menu is turned off.

Various Functions for Playing Discs

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 ⊕.

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 ⊕.

Playing in Random Order

(Shuffle Play)

VIDEO CD   SuperAudioCD   C D   DATA-CD   DATA DVD

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

Note
• Same song may be played repeatedly during MP3 playback.
• You can shuffle the track on the current disc only.

1 **Press ▭ DISPLAY during playback.**
The Control Menu appears.

2 **Press ↑/↓ to select** ▮ 🎲 **[SHUFFLE], then press ⊕.**
The options for [SHUFFLE] appear.

```
        6 (14)
   T    2 : 5 0              CD


     OFF
      OFF
      TRACK
```
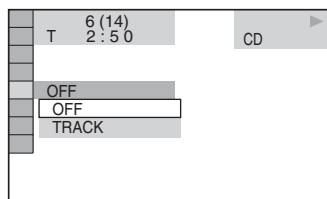
3 **Press ↑/↓ to select the item to be shuffled.**

■ **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.

■ **When playing a DATA CD (except for DivX∗) or DATA DVD (except for DivX∗)**
• [ON]: shuffles MP3 audio tracks in the album on the current disc. When no album is selected, the first album will play in random order.
∗European models only.

Note
• A track already played is also selected in random order.

4 **Press ⊕.**
Shuffle Play starts.

To return to normal play

Press CLEAR, or select [OFF] in Step 3.

To turn off the Control Menu

Press ⌾ DISPLAY repeatedly until the Control Menu is turned off.

Note
• You cannot use this function with VIDEO CDs and Super VCDs with PBC playback.

Playing Repeatedly

(Repeat Play)

`DVD·V` `DVD·VR` `VIDEO CD` `Super Audio CD` `C D`
`DATA·CD` `DATA DVD`

You can play all 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.

1 **Press ⌾ DISPLAY during playback.**

The Control Menu appears.

2 **Press ↑/↓ to select** `I ⇆` **[REPEAT], then press ⊕ .**

The options for [REPEAT] appear.

```
      6 (14)
  T   2 : 5 0              CD




      OFF
      OFF
      ALL DISCS
      ONE DISC
      TRACK
```
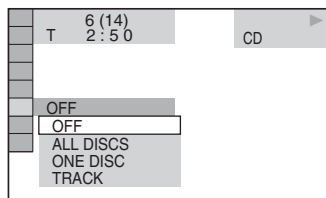
3 **Press ↑/↓ to select the item to be repeated.**

The default setting is underlined.

■ **When playing a DVD VIDEO or DVD-VR**
• [OFF]: does not play repeatedly.
• [ALL DISCS]: repeats all of the discs.
• [ONE DISC]: repeats all of the titles on the current disc. (When playing a DVD-VR, [ONE DISC] repeats all of the titles of the selected type.)
• [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.
• [ALL DISCS]: repeats all of the discs.
• [ONE DISC]: repeats all of the tracks on the current disc.
• [TRACK]: repeats the current track.

continued

■ When playing a DATA CD or DATA DVD

- [OFF]: does not play repeatedly.
- [ALL DISCS]: repeats all of the discs.
- [ONE DISC]: repeats all of the albums on the current disc.
- [ALBUM]: repeats the current album.
- [TRACK] (MP3 audio tracks only): repeats the current track.
- [FILE] (DivX video files only): repeats the current file.*

*European models only.

4 Press ⊕.

The item is selected.

To return to normal play, press CLEAR, or select [OFF] in Step 3.

To turn off the Control Menu

Press ⊡ DISPLAY repeatedly until the Control Menu is turned off.

Note

- You cannot use this function with VIDEO CDs and Super VCDs with PBC playback.
- When playing a DATA CD/DATA DVD which contains MP3 audio track and JPEG image files, and their playing time are not the same, the audio sound will not match the image.
- When [MODE (MP3, JPEG)] is set to [IMAGE (JPEG)] (page 57), you cannot select [TRACK].

Tip

- You can also press REPEAT on the remote to set repeat play.

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 DVD 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 DVD MENU.

1 Press DVD TOP MENU or DVD 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 ⊕.

Changing the Sound

DVD-V DVD-VR VIDEO CD C D DATA-CD

DATA DVD

When playing a DVD VIDEO or DATA CD/
DATA DVD (DivX video files*) recorded in
multiple audio formats (PCM, Dolby Digital,
MPEG audio, or DTS), you can change the
audio format. If the DVD VIDEO is recorded
with multilingual tracks, you can also change the
language.

With VIDEO CDs, CDs, DATA CDs, or DATA
DVDs, 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.

* European models only.

1 Press AUDIO during playback.

The following display appears.

> ◁)) 1:ENGLISH DOLBY DIGITAL 3/2.1
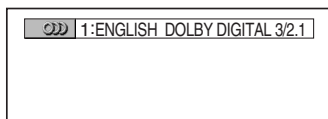
2 Press AUDIO repeatedly to select the desired audio signal.

■ 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 93) 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-VR
The types of sound tracks recorded on a disc
are displayed. The default setting is
underlined.
Example:
• [1: MAIN] (main sound)
• [1: SUB] (sub sound)
• [1: MAIN+SUB] (main and sub sound)
• [2: MAIN]

• [2: SUB]
• [2: MAIN+SUB]

> **Note**
> • [2: MAIN], [2: SUB], and [2: MAIN+SUB] do
>   not appear when one audio stream is recorded on
>   the disc.

■ When playing a VIDEO CD, CD, DATA CD (MP3 audio), or DATA DVD (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 DATA CD (DivX video) or DATA DVD (DivX video) (European models only)
The choice of DATA CD or DATA DVD
audio signal formats differ, depending on
the DivX video file contained on the disc.
The format is shown in the display.

■ 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)

> **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.

Checking the audio signal format

(DVD, DivX video* only)

* European models only.

If you press AUDIO repeatedly during playback, the format of the current audio signal (PCM, Dolby Digital, DTS, etc.) appears as shown below.

■ When playing a DVD

Example:

Dolby Digital 5.1 ch
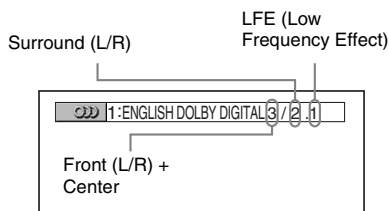
Surround (L/R)

LFE (Low Frequency Effect)

1:ENGLISH DOLBY DIGITAL 3 / 2 .1

Front (L/R) + Center

Example:

Dolby Digital 3 ch

Front (L/R)

Surround (Monaural)

2:SPANISH DOLBY DIGITAL 2 / 1
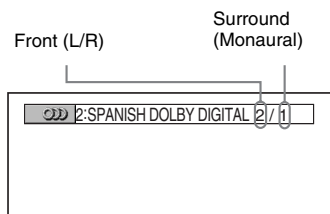
■ When playing a DATA CD (DivX video) or DATA DVD (DivX video) (European models only)

Example:

MP3 audio

1: MP3 128k

Bit rate
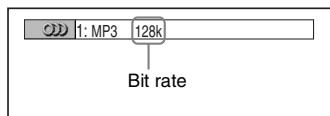
About audio signals

Audio signals recorded in a disc contain the sound elements (channels) shown below.

- Front (L)
- Front (R)
- Center
- Surround (L)
- Surround (R)
- Surround (Monaural): This signal can be either the Dolby Surround Sound processed signals or the Dolby Digital sound's monaural Surround audio signals.
- LFE (Low Frequency Effect) signal

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

DVD-VR

Some DVD-Rs/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 when the system is in stop mode.**

The Control Menu appears.

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

The options for [ORIGINAL/PLAY LIST] appear.

```
1 ( 4 4 )
3 ( 2 8 )                    DVD-VR
T  1 : 3 0 : 5 0

PLAY LIST
PLAY LIST
ORIGINAL
```
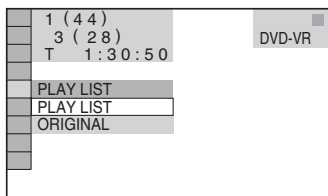
3   **Press ↑/↓ to select a setting.**

The default setting is underlined.

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

4   **Press ⊕ .**

Viewing Information About the Disc

DVD-V   **DVD-VR**   **VIDEO CD**   **S**uper**A**udio**CD**   **C D**

DATA-CD   **DATA DVD**

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, file name of a DivX video* using the front panel display (page 96).

* European models only.

Press DISPLAY.

Each time you press DISPLAY while playing the disc, the display changes ① → ② → ... → ① → ...

Some displayed items may disappear after a few seconds.

When playing a DVD VIDEO or DVD-R/DVD-RW

① Playing time and number of the current title
② Remaining time of the current title
③ Playing time and number of the current chapter
④ Remaining time of the current chapter
⑤ Disc name
⑥ Title and chapter

When playing a DATA CD (DivX video) or DATA DVD (DivX video)
(European models only)

① Playing time of the current file
② Current file name
③ Current album and file number

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

① Playing time of the current track
② Remaining time of the current track
③ Playing time of the current disc
④ Remaining time of the current disc
⑤ Disc name
⑥ Track and index*
* VIDEO CD/Super Audio CD only.

When playing a DATA CD (MP3 audio) or DATA DVD (MP3 audio)

① Playing time and current track number
② Track (file) name

Tip
• When playing VIDEO CDs with PBC functions, the playing time is displayed.

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 and DivX video files* may not be displayed correctly.
* European models only.

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.
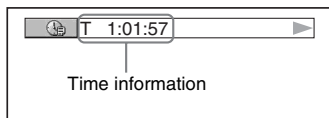
Time information

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) or DATA DVD (MP3 audio)**
• T **:**
  Playing time of the current track

■ **When playing a DATA CD (DivX video) or DATA DVD (DivX video) (European models only)**
• **:**:**
  Playing time of the current file

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. 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.

```
BRAHMS  SYMPHONY
```
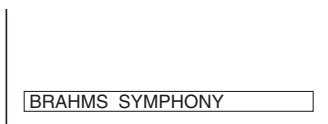
To check DATA CD/DATA DVD (MP3 audio/DivX video*) text

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

Bit rate**

```
🔄 T  17:30  128k            ▶

JAZZ
RIVER SIDE
```

Album name   Track/file* name
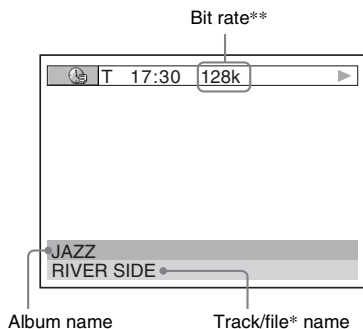
* European models only.
** Appears when:
   – playing an MP3 audio track on DATA CDs/DATA DVDs.
   – playing a DivX video file that contains MP3 audio signals on DATA CDs/DATA DVDs (European models only).

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.

```
1 ( 8 )
1 ( 20 )               ▶
1/1/2006          DATA CD JPEG

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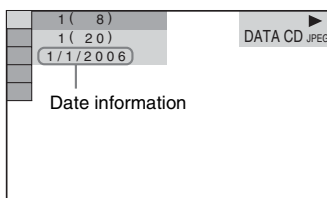
* "Exchangeable Image File Format" is a digital camera image format defined by the Japan Electronics and Information Technology Industries Association (JEITA).

Tip
• Date information is [MM/DD/YYYY].
  MM: Month
  DD: Day
  YYYY: Year
• Date information differs depending on the area.

Various Functions for Playing Discs

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.

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-VR DATA-CD * DATA DVD *

* European models only.

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.

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.
• You can change the subtitles if the DivX video file has an ".AVI" or ".DIVX" extension and contains subtitle information within the same file. (European models only)

Adjusting the Delay Between the Picture and Sound

(A/V SYNC)

`DVD-V` `DVD-VR` `VIDEO CD` `DATA-CD` * `DATA DVD` *

* European models only.

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

1 Press ⌐ DISPLAY when the system is in stop mode.

The Control Menu appears.

2 Press ↑/↓ to select [A/V SYNC], then press ⊕.

The options for [A/V SYNC] appear.

```
1(12)
1(28)                    DVD VIDEO
T   0:00:02


OFF
OFF
ON
```
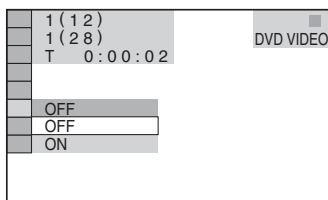
3 Press ↑/↓ to select the setting you want and press ⊕.

The default setting is underlined.
- [OFF]: does not adjust.
- [ON]: adjusts the difference between picture and sound.

The selected setting takes effect.

Note
- Depending on the input stream, this function may not be effective.

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.

Press SA-CD/CD when the system is in stop mode.

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 91.
- 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.

About MP3 Audio Tracks and JPEG Image Files

DATA-CD   DATA DVD

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) or DATA DVDs (DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs/DVD-ROMs) recorded in MP3 (MPEG1 Audio Layer 3) or JPEG format. However, the DATA CDs must be recorded according to ISO 9660 Level 1, Level 2 or Joliet format and DATA DVDs of Universal Disk Format (UDF) 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 or DVD-R/DVD-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/DATA DVDs created in the Packet Write format.

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 or DATA DVD is as follows:

■ Structure of disc contents

Tree 1   Tree 2   Tree 3   Tree 4   Tree 5

Album   Track (MP3 audio) or File (JPEG image)
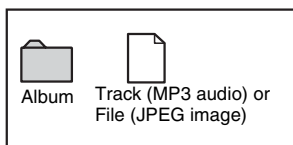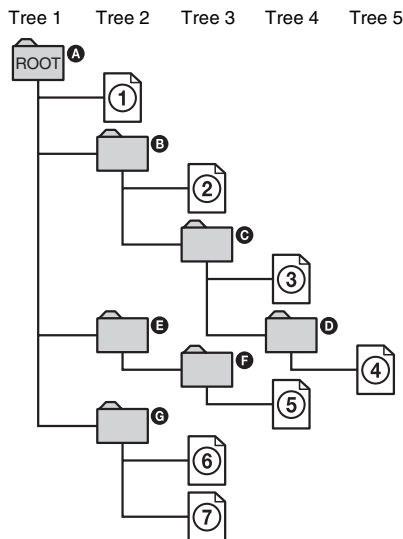
When you insert a DATA CD or DATA DVD, the numbered tracks (or files) are played sequentially, from ① through ⑦. Any sub-albums/tracks (or files) contained within a currently selected album take priority over the next album in the same tree. (Example: ● contains ● so ④ is played before ⑤.)

When you press DVD MENU and the list of album names appears (page 55), the album names are arranged in the following order: Ⓐ → Ⓑ → Ⓒ → Ⓓ → Ⓕ → Ⓖ. Albums that do not contain tracks (or files) (such as album Ⓔ) do not appear in the list.

Tip
• If you add numbers (01, 02, 03, etc.) to the front of the track (or file) names when you store the tracks (or files) in a disc, the tracks (or files) will be played in that order.
• A disc with many trees 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 DATA DVD, 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 or DATA DVDs with MP3 Audio Tracks and JPEG Image Files

DATA-CD   DATA DVD

Selecting an MP3 audio track or album

1 Load a DATA CD or DATA DVD.
The system starts playing from the first album.

2 Press DVD MENU.
The albums recorded on the DATA CD or DATA DVD appear. When an album is being played, its title is shaded.

```
    🎵   3( 30)

ROCK BEST HIT
KARAOKE
MY FAVOURITE SONG
R&B
JAZZ
CLASSIC
SALSA OF CUBA
BOSSA NOVA
              ▼
```

3 Press ↑/↓ to select an album.

■ **When selecting an album**
Press ▷ to start playing the selected album.

■ **When selecting a track**
Press ⊕.
The list of tracks contained in the album appears.

```
  🖼 MY FAVOURITE SONG
  🎵    1(256)

WALTZ FOR DEBBY
MY ROMANCE
MILES TONES
MY FUNNY VALENTINE
AUTUM LEAVES
ALL BLUES
SOMEDAY MY PRINCE W...
              ▼
```
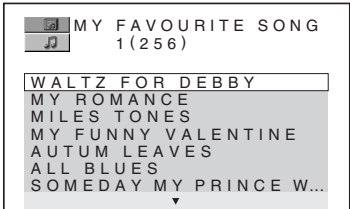
Press ↑/↓ to select a track and press ⊕.

Various Functions for Playing Discs

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

To stop playback

Press ■.

To play the next or previous MP3 audio track

Press |◀◀ /▶▶|. Note that you can select the next album by continuing to press ▶▶| after the last track on the current album, but that you cannot return to the previous album by pressing |◀◀ . To return to the previous album, select the album from the album list.

To return to the previous display

Press ♂ RETURN.

To turn off the display

Press DVD MENU.

Selecting a JPEG image file or album

1 Load a DATA CD or DATA DVD.

The system starts playing from the first album.

2 Press DVD MENU.

The albums recorded on the DATA CD or DATA DVD appear. When an album is being played, its title is shaded.

```
          3( 30)

ROCK BEST HIT
KARAOKE
MY FAVOURITE SONG
R & B
JAZZ
CLASSIC
SALSA OF CUBA
BOSSA NOVA
                        ▼
```

3 Press ↑/↓ to select an album.

■ **When selecting an album**
Press ▷ to start playing the selected album.

■ **When selecting an image**
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	

Press ←/↑/↓/→ to select the image you want to view and press ⊕ .
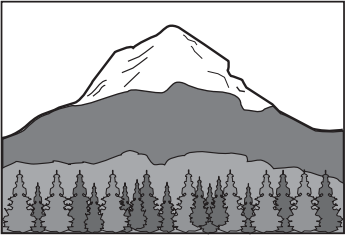
To play the next or previous JPEG image file

Press ←/→ when the Control Menu is not displayed. Note that you can select the next album by continuing to press → after the last image on the current album, but that you cannot return to the previous album by pressing ←. 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 ↑/↓ while viewing an image. Each time you press ↑, the image rotates counterclockwise by 90 degrees.
Example of when you press ↑ once:

Rotating direction
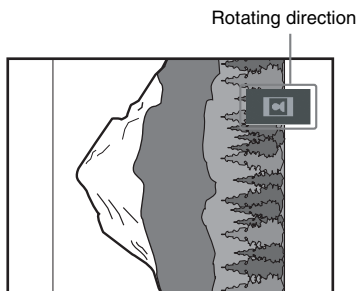
Press CLEAR to return to normal view.

To stop playback

Press ■.

Tip

• A scroll box is displayed at the right side of the
screen. To display the additional image files, select
the bottom image and press ↓. To return to the
previous image, select the top image and press ↑.

Playing Audio Tracks and Images as a Slide Show with Sound

DATA-CD **DATA DVD**

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

1 **Load a DATA CD or DATA DVD.**

The system starts playing from the first
album.

2 **Press ■.**

The system stops playback.

3 **Press ⊡ DISPLAY when the system is
in stop mode.**

The Control Menu appears.

4 **Press ↑/↓ to select 🖳 [MODE
(MP3, JPEG)], then press ⊕.**

The options for [MODE (MP3, JPEG)]
appear.

```
    3 ( 1 2 )
   1 8 ( 3 4 )              DATA CD MP3
   T    2 : 5 5

   AUTO
   AUTO
   AUDIO (MP3)
   IMAGE (JPEG)
```
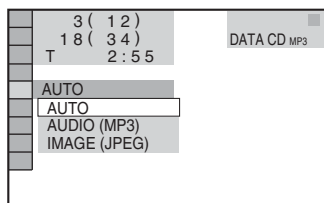
5 **Press ↑/↓ to select the setting you
want and press ⊕.**

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 DVD MENU.

The list of albums recorded on the DATA CD or DATA DVD appears.

7 Press ↑/↓ to select the album you want and press ▷.

The system starts playing the selected album.

You can turn the album list on and off by pressing DVD 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
• If you select an album containing JPEG image files only and [MODE (MP3, JPEG)] is set to [AUDIO (MP3)], [No audio data] appears on the screen.
• If you select an album containing MP3 audio tracks only and [MODE (MP3, JPEG)] is set to [IMAGE (JPEG)], [No image data] appears on the screen.
• 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 ⊡ DISPLAY twice.

The Control Menu for JPEG appears.

2 Press ↑/↓ to select [INTERVAL], then press ⊕.

The options for [INTERVAL] appear.

```
    3 ( 1 2 )
    1 (   4 )                    DATA CD JPEG
10/29/2006
NORMAL
 NORMAL
 FAST
 SLOW1
 SLOW2
```
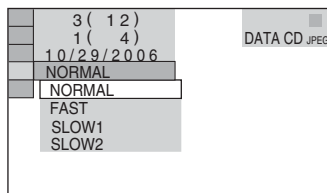
3 Press ↑/↓ to select the setting you want.

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 ⊕.

The selected setting takes effect.

Note
• Some JPEG files may take longer to display than others, which may make the duration seems 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 ⊡ DISPLAY twice.

The Control Menu for JPEG appears.

2 Press ↑/↓ to select [EFFECT], then press ⊕.

The options for [EFFECT] appear.

```
     3 ( 1 2 )
     1 (  4 )                    ▶
  1 0 / 2 9 / 2 0 0 6    DATA CD JPEG

  MODE1
  MODE1
  MODE2
  MODE3
  MODE4
  MODE5
  OFF
```
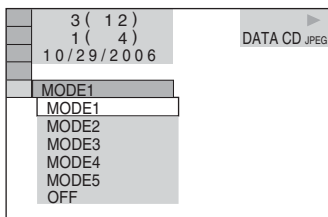
3 Press ↑/↓ to select the setting you want.

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 ⊕.

The selected setting takes effect.

Enjoying DivX® Videos

DATA-CD **DATA DVD**
(European models only)

About DivX Video Files

DivX® is a video file compression technology, developed by DivX, Inc. This product is an official DivX® Certified product.
You can play DATA CDs and DATA DVDs that contain DivX® video files.

DATA CDs and DATA DVDs that the system can play

Playback of DATA CDs (CD-ROMs/CD-Rs/CD-RWs) and DATA DVDs (DVD-ROMs/DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs) on this system is subject to certain conditions:

– With DATA CDs/DATA DVDs that contain DivX video files in addition to MP3 audio tracks or JPEG image files, the system plays only the DivX video files.

However, this system only plays DATA CDs whose logical format is ISO 9660 Level 1/Level 2 or Joliet, and DATA DVDs of Universal Disk Format (UDF).
Refer to the instructions supplied with the disc drives and the recording software (not supplied) for details on the recording format.

About playback order of data on DATA CDs or DATA DVDs

See "Playback order of MP3 audio tracks or JPEG image files" (page 54). Note that the playback order may not be applicable, depending on the software used for creating the DivX video file, or if there are more than 200 albums and 600 DivX video files in each album.

Note
• The system may not be able to play some DATA CDs/DATA DVDs created in the Packet Write format.

DivX video files that the system can play

The system can play data that is recorded in DivX format, and which has the extension

".AVI," or ".DIVX." The system will not play files with the extension ".AVI" or ".DIVX" if they do not contain a DivX video.

Note
• The system may not play a DivX video file when the file has been combined from two or more DivX video files.
• The system cannot play a DivX video file of size more than 720 (width) × 576 (height) or 2GB.
• Depending on the DivX video file, sound may skip or not match the pictures on the screen.
• The system cannot play some DivX video files that are longer than 3 hours.
• Depending on the DivX video file, the picture may pause or be unclear. In which case, it is recommended that you create the file at a lower bit rate. If the sound is still noisy, MP3 is the recommended audio format. Note, however, this system does not conform to WMA (Windows Media Audio) format.
• Because of the compression technology used for DivX video files, it may take some time after you press ▷ for the picture to appear.

Selecting an album

1 Press DVD MENU.

A list of albums on the disc appears. Only albums that contain DivX video files are listed.

```
     🎞    3 ( 3 )

S U M M E R   2 0 0 3
N E W   Y E A R ' S   D A Y
M Y   F A V O U R I T E S
```
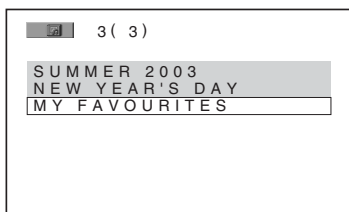
2 Press ↑/↓ to select the album you want to play.

3 Press ▷.

The system starts playing the selected album.
To select DivX video files, see "Selecting a DivX video file" (page 60).

To go to the next or previous page

Press ←/→.

To turn off the display

Press DVD MENU repeatedly.

To stop playback

Press ■.

Selecting a DivX video file

1 After Step 2 of "Selecting an album," press ⊕.

The list of files in the album appears.

```
  🎞   M Y   F A V O U R I T E S
  🎞       1 ( 2 )

H A W A I I   2 0 0 4
V E N U S
```
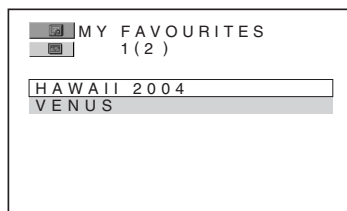
2 Press ↑/↓ to select a file and press ⊕.

The selected file starts playing.

To go to the next or previous page

Press ←/→.

To return to the previous display

Press ♂ RETURN.

To stop playback

Press ■.

To play the next or previous DivX video file without turning on the above file list

You can select the next or previous DivX video file in the same album by pressing ◄◄ /►►I. You can also select the first file of the next album by pressing ►►I during playback of the last file of the current album. Note that you cannot return to the previous album by pressing ◄◄ . To return to the previous album, select it from the album list.

• If the number of viewing times is preset, you can play the DivX video files as many times as the preset number. The following occurrences are counted:
  – when the system is turned off.
  – when another file is played.

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.

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 ⊕ .**

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
• 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 ⊕ . The system starts continuous play. You cannot play still pictures such as a menu. To return to PBC playback, press ■ twice, then press ▷.

Various Functions for Playing Discs

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 "TUNER FM" or "TUNER AM" 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 ⊕.**

A preset number appears in the front panel display.

```
         TUNED ST
    Memory   -4-
```

6   **Press ↑/↓ to select the preset number you want.**

```
         TUNED ST
    Memory   -7-
```

7   **Press ⊕.**

The station is stored.

```
         TUNED ST
    Complete!
```

8   **Press TUNER MENU.**

9   **Repeat 1 to 8 to store other stations.**

To change the preset number

Restart from Step 3.

To change the AM tuning interval (North American models only)

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 I/⏻ on the system. While holding down FUNCTION on the system, press I/⏻ 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 62)).

1 **Press FUNCTION +/– repeatedly until "TUNER FM" or "TUNER 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 I/⏻ to turn off the system.
To change to another function, press FUNCTION +/–.

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 –. The automatic tuning stops automatically when the system receives the radio station. To stop the automatic tuning manually, press TUNING + or –.

To listen to radio stations when you know the frequencies

Use direct tuning in Step 2.

1 Press DIRECT TUNING.

2 Press the number buttons to select the frequency number you want to listen to.

3 Press ⊕ .

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. (Or, press TUNER MENU, and select "FM Mode?" by pressing ↑/↓, then press ⊕ . Press ↑/↓ to select "MONO," then press ⊕ . To return, select "STEREO.")

• To improve reception, reorient the supplied antennas (aerials).

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.

Note
• You cannot enter a name for preset stations of the Radio Data System (RDS) (page 64). (European models only)

1 **Press FUNCTION +/– repeatedly until "TUNER FM" or "TUNER 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 to create an index name for.**

3 **Press TUNER MENU.**

4 **Press ↑/↓ repeatedly until "Name In?" appears in the front panel display.**

```
        TUNED ST
     Name In?
```

5 **Press ⊕ .**

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

Press ↑/↓ to select a character, then press → to move the cursor to the next position.
Letters, numbers, and other symbols can be input for a radio station name.

If you make a mistake

Press ←/→ repeatedly until the character to be changed flashes, then press ↑/↓ to select the desired character.
To erase the character, press ←/→ repeatedly until the character to be erased flashes, then press CLEAR.

7 **Press ⊕ .**

"Complete!" appears in the front panel display, and the station name is stored.

8 **Press TUNER MENU.**

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Viewing the station name or frequency in the front panel display

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

Press DISPLAY.

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

① Station name*

② Frequency**

* This is displayed if you have entered a name for a preset station.

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

Using the Radio Data System (RDS)

(European models only)

What is the Radio Data System?

The Radio Data System (RDS) is a broadcasting service that allows radio stations to send additional information along with the regular program signal. This tuner offers convenient RDS features, such as station name display. RDS is available only for FM stations.*

Note
• RDS may not work properly if the station you are tuned to is not transmitting the RDS signal properly, or if the signal strength is weak.

* Not all FM stations provide RDS service, nor do they provide the same type of services. If you are not familiar with the RDS system, check with your local radio stations for details on RDS services in your area.

Receiving RDS broadcasts

Simply select a station from the FM band.

When you tune in a station that provides RDS services, the station name* appears in the front panel display.

* If an RDS broadcast is not received, the station name may not appear in the front panel display.

Tip
• When a station name is displayed, you can check the frequency by pressing DISPLAY repeatedly.

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/⏻ **while entering your TV's manufacturer's code (see the table) using the number buttons. Then release TV I/**⏻**.**

If you set successfully the manufacturer's code, the TV button flashes twice slowly. If the setting is unsuccessful, the TV button flashes 5 times quickly.

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	501 (default), 502
ADMIRAL	510, 535, 542
AIWA	501, 536, 539
AKAI	503
AOC	503
BCLL&HOWELL	535, 542
BROKSONIC	503
CROSLEX	518
CURTIS-MATHES	503, 551, 566, 567
DAEWOO	503, 504, 505, 506, 507, 515
DAYTRON	517
EMERSON	503, 517
FISHER	508, 545
FUJITSU	528

Manufacturer	Code number
FUNAI	548
GENERAL ELECTRIC	503, 509, 510
GOLDSTAR/LG	503, 512, 515, 517, 568, 576
GRUNDIG	511, 533
HITACHI	503, 513, 514, 515, 517, 557
ITT/NOKIA	521, 522
J.C.PENNY	503, 510, 566
JVC	516, 552
KTV	503, 517
LOEWE	515, 556
LXI (Sears)	503, 508, 510, 517, 518, 551
MAGNAVOX	503, 515, 517, 518, 566
MARANTZ	527
MITSUBISHI/MGA	503, 519, 527, 566, 568
NEC	503, 520, 527, 554
PANASONIC	509, 524, 553, 572
PHILCO	503, 504, 514, 517, 518
PHILIPS	515, 518, 557
PIONEER	509, 525, 526, 551, 555
PORTLAND	503
QUASAR	509, 535
RADIO SHACK	503, 510, 527, 565, 567
RCA/PROSCAN	503, 510, 523, 529
SAMSUNG	503, 515, 517, 531, 532, 534, 556, 557, 566, 569, 574
SANYO	508, 545, 546, 567
SCOTT	503, 566
SHARP	517, 535, 550, 565
SIGNATURE	535, 542, 550
SYLVANIA	503, 518, 566
TELEFUNKEN/SABA	530, 537, 538, 547, 549, 558
THOMSON	530, 537, 547, 549
TOSHIBA	535, 539, 540, 541, 551
VIDECH	503, 514
WARDS	503, 517, 566
ZENITH	542, 543, 567

Other Operations

CATV

Manufacturer	Code number
SONY	802, 821, 822, 823, 824, 825, 865
AMSTRAD	845, 846
BSKYB	862
GRUNDING	859, 860
HAMLIN/REGAL	836, 837, 838, 839, 840
HUMAX	846, 847
JERROLD	830, 831
JERROLD/GI	806, 807, 808, 809, 810, 811, 812, 813, 814
MOTOROLA	807, 819
NOKIA	851, 853, 854, 864
OAK	841, 842, 843
PACE	848, 849, 850, 852, 862, 863, 864
PANASONIC	816, 826, 833, 834, 835, 855
PHILIPS	830, 831, 856, 857, 858, 859, 860, 864
PIONEER	828, 829
SCIENTIFIC ATLANTA	815, 816, 817, 844
THOMSON	830, 831, 857, 861, 864, 876
ZENITH	826, 827

To control the TV

You can control the TV by using following buttons.

By pressing	You can
TV I/⏻	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.
TOOLS*	Displays the operation menu for the current display.
↰ RETURN*	Return to the previous channel.
TV MENU*	Display the menu of the TV.

* These buttons change to the TV operation buttons when the remote is in TV mode. The remote is in TV mode when the TV mode indicator (above the TV button) lights up by pressing the TV button.

-/-- is for selecting a channel number greater than 10. (For example, for channel 25, press -/--, then 2 and 5.)

Note
- Depending on the TV, you may not be able to control your TV or to use some of the buttons above.
- 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.

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
	CLEAR*	COMPONENT 2
	SOUND FIELD*	COMPONENT 3
	MOVIE/ MUSIC*	COMPONENT 4
	BASS/ TREBLE*	HDMI 1
	⏮ *	HDMI 2

By pressing	Number	TV's input source
	⏮● *	HDMI 3
	●⏭ *	HDMI 4
	⏭⏭*	HDMI 5

* European models only.

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.
* Functions as both TV CH + and FUNCTION + button.

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.
- Keep the remote pointed in the direction of the TV and this system while entering the code.

Enjoying Multiplex Broadcast Sound

(DUAL MONO)

You can enjoy multiplex broadcast sound when the system receive the Dolby Digital multiplex broadcast signal.

Press AUDIO.

Press AUDIO repeatedly until the signal you want appears in the front panel display. The default setting is underlined.

- <u>MAIN</u>: Sound of the main language will be output.
- SUB: Sound of the sub language will be output.
- MAIN+SUB: Main sound is output from the left speaker and Sub sound is output from the right speaker.

Note
- To receive the Dolby Digital signal, you need to connect a digital satellite tuner to the system with a digital cord (pages 23, 28) and set the digital output mode of the digital satellite tuner to Dolby Digital.

Using the Sleep Timer

You can set the system to turn off at a preset time, so you can fall asleep listening to music. You can preset the time in 10 minutes decrements.

Press SLEEP.

Each time you press this button, the minutes display (the remaining time) changes as follows:

SLEEP OFF → SLEEP 90M → SLEEP 80M
↑　　　　　　　　　　　　　↓
SLEEP 10M ..... SLEEP 60M ← SLEEP 70M

To check the remaining time

Press SLEEP once.

To change the remaining time

Press SLEEP repeatedly to select the desired time.

To cancel the Sleep Timer function

Press SLEEP repeatedly until "SLEEP OFF" appears in the front panel display.

Changing the Brightness of the Front Panel Display

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

Press DIMMER.

Each time you press DIMMER, the brightness of the front panel changes.

You can change the brightness of the front panel display by using the AMP menu.

1 Press AMP MENU.

2 Press ↑/↓ repeatedly until "DIMMER" appears in the front panel display, then press ⊕ or →.

3 Press ↑/↓ to select the brightness of the front panel display.
   - DIMMER OFF: Bright
   - DIMMER 1: Medium brightness
   - DIMMER 2: Minimum brightness

4 Press ⊕.

5 Press AMP MENU.

   The AMP menu turns off.

Locking Discs

(CUSTOM PARENTAL CONTROL, PARENTAL CONTROL)

DVD-V **VIDEO CD** **Super Audio CD** **C D**

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 while the system is in stop mode.**

The Control Menu appears.

3 **Press ↑/↓ to select [PARENTAL CONTROL], then press ⊕.**

The options for [PARENTAL CONTROL] appear.

```
1 2 ( 2 7 )                          ■
1 8 ( 3 4 )              DVD VIDEO
T   1 : 3 2 : 5 5


OFF
ON →
PLAYER →
PASSWORD →
```
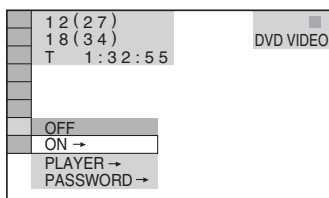
4 **Press ↑/↓ to select [ON →], then press ⊕.**

■ **If you have not entered a password**

The display for registering a new password appears.

```
PARENTAL CONTROL

Enter a new 4-digit password,
then press ENTER .

   ■     ■     ■     ■
```

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

■ **When you have already registered a password**

The display for entering the password appears.

```
PARENTAL CONTROL

Enter password, then press ENTER .

   ■     ■     ■     ■
```

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

[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 ↑/↓ to select [OFF →], then press ⊕.

3 Enter your 4-digit password using the number buttons, then press ⊕.

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.

```
CUSTOM PARENTAL CONTROL

Custom parental control is already
set. To play, enter your password
and press ENTER .

      ▪      ▪      ▪      ▪
```
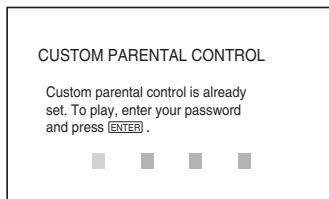
2 Enter your 4-digit password using the number buttons, then press ⊕.

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 ⊕. 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 ⊡ DISPLAY while the system is in stop mode.

The Control Menu appears.

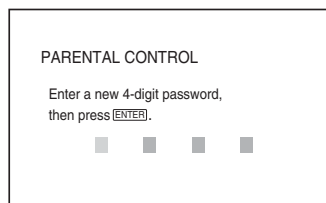**2** Press ↑/↓ to select 🔒 [PARENTAL CONTROL], then press ⊕.

The options for [PARENTAL CONTROL] appear.

```
┌─────────────────────────────┐
│ 1 2 ( 2 7 )                 │
│ 1 8 ( 3 4 )         DVD VIDEO│
│ T   1 : 3 2 : 5 5           │
├─────────────────────────────┤
│                             │
│                             │
│                             │
│ OFF                         │
│ ON →                        │
│ PLAYER →                    │
│ PASSWORD →                  │
└─────────────────────────────┘
```
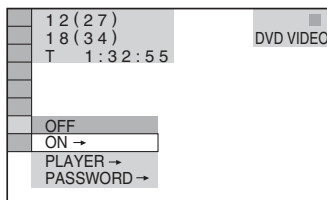
3 Press ↑/↓ to select [PLAYER →], then press ⊕.

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

```
PARENTAL CONTROL

Enter a new 4-digit password,
then press ENTER.

      ▪      ▪      ▪      ▪
```
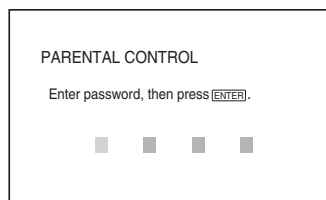
Enter a 4-digit password using the number buttons, then press ⊕.

The display for confirming the password appears.

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

```
PARENTAL CONTROL

Enter password, then press ENTER.

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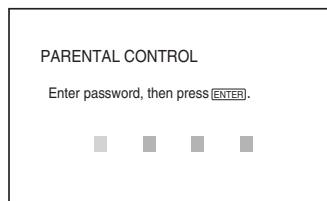
4 Enter or re-enter your 4-digit password using the number buttons, then press ⊕.

The display for setting the playback limitation level appears.

```
PARENTAL CONTROL
LEVEL:                    OFF
STANDARD:                 USA
```

5 Press ↑/↓ to select [STANDARD], then press ⊕.

The selection items for [STANDARD] are displayed.

```
PARENTAL CONTROL
LEVEL:                    OFF
STANDARD:                 USA
                          USA
                          OTHERS→
```

6 Press ↑/↓ to select a geographic area as the playback limitation level, then press ⊕.

The area is selected.

When you select [OTHERS →], select and enter a standard code in the table of "Parental Control Area Code List" (page 93) using the number buttons.

7 Press ↑/↓ to select [LEVEL], then press ⊕.

The selection items for [LEVEL] are displayed.

```
PARENTAL CONTROL
LEVEL:                    OFF
STANDARD:                 OFF
                       8:
                       7:  NC17
                       6:    R
                       5:    ▼
```

8 Press ↑/↓ to select the level you want, then press ⊕.

Parental Control setting is complete.

```
PARENTAL CONTROL
LEVEL:              4:  PG13
STANDARD:                 USA
```

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 ▷.

The display for entering your password appears.

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

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 ⊕. 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 ▷. 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.

Changing the password

1 **Press ⊡ DISPLAY while the system is in stop mode.**

The Control Menu appears.

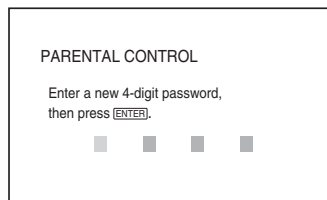**2** **Press ↑/↓ to select [PARENTAL CONTROL], then press ⊕.**

The options for [PARENTAL CONTROL] appear.

3 **Press ↑/↓ to select [PASSWORD →], then press ⊕.**

The display for entering the password appears.

4 **Enter your 4-digit password using the number buttons, then press ⊕.**

5 **Enter a new 4-digit password using the number buttons, then press ⊕.**

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

If you make a mistake entering your password

Press ← before you press ⊕ and input the correct number.

Calibrating the Appropriate Settings Automatically

(D. C. A. C)*

D. C. A. C.* can set the appropriate surround sound automatically.

* Digital Cinema Auto Calibration

Note
- Loud test sound is output when [AUTO CALIBRATION] starts. You cannot turn the volume down. Give consideration to children and neighbor.
- The A.CAL MIC jack is for the supplied calibration mic only. Do not connect other mics as it may cause damage to the system.

1 **Connect the calibration mic to the A.CAL MIC jack on the rear panel, and set it up at the ear level using a tripod, etc. (not supplied).**

Calibration mic

Side view

Advanced Settings and Adjustments

continued
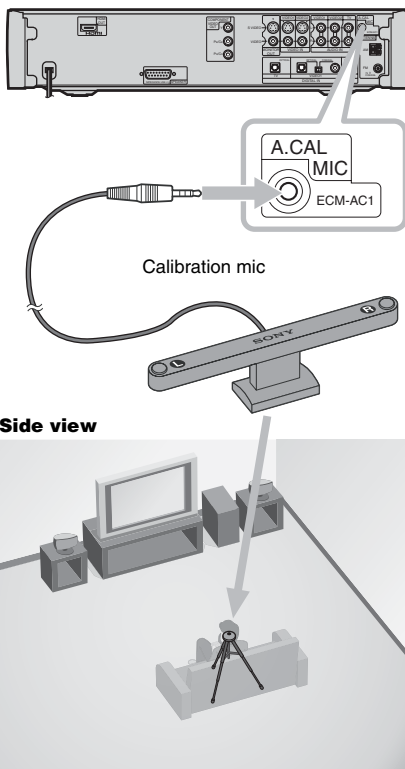
2 **Place the calibration mic so that the "FRONT" side of it is pointed toward the front speakers.**

Top view

Front speaker (L)   Front speaker (R)

Parallel

Calibration mic

FRONT

SONY
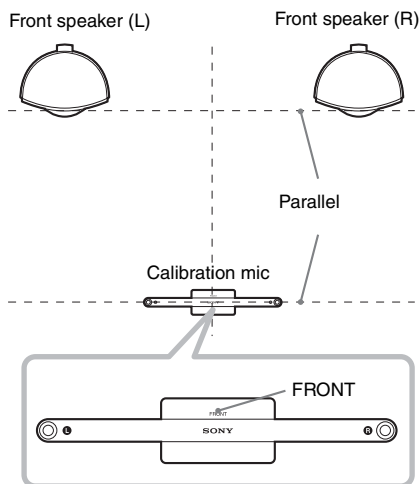
The front of each speaker should face parallel to the calibration mic, and there should be no obstruction between them.

3 **Press FUNCTION +/– repeatedly until "DVD" appears in the front panel display.**

4 **Press ⌐ DISPLAY when the system is in stop mode.**

The Control Menu appears.

5 **Press ↑/↓ to select [AUTO CALIBRATION], then press ⊕ .**

```
1 ( 4 4 )
3 ( 2 8 )                      DVD VIDEO
T   0 : 0 3 : 0 4
AUTO CALIBRATION
START
```

6 **Press ⊕ .**

```
AUTO CALIBRATION

Connect calibration mic. Start
measurement?

            YES
            NO
```
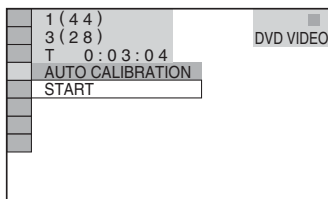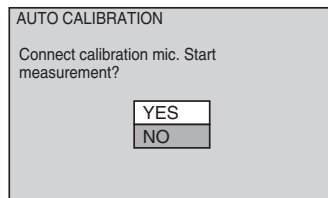
7 **Press ↑/↓ to select [YES], then press ⊕ to start the auto calibration.**

Be quiet during the measurement.

```
Measuring. Please wait a moment.
```
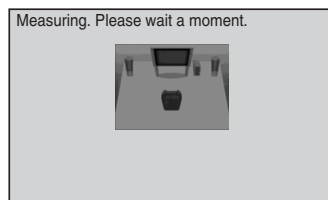
Note

• Avoid being in the measurement area and making noise during the measurement (about 1 minute), to avoid measurement failure. During the measurement, test signals are output from the speakers.

• Reflections from walls or the floor may affect measurements.

• If an error message appears, follow the message, then select [YES].

An error message appears when:

  – the calibration mic is not connected.

  – front speakers are not correctly connected.

  – subwoofer is not connected.

  – the left and right speakers are reversed.

  – the left and right of the calibration mic are reversed.

8 Press ←/↑/↓/→ to select [YES] or [NO], then press ⊕ .

■ **The measurement is OK.**

Disconnect the calibration mic, then select [YES]. The result is implemented.

The distance and audio level of the front speaker (L) and (R), and the audio level of the subwoofer are displayed. (The distance values are expressed in feet and meters for North American models, and meters for European models.)

```
Measurement complete.

FRONT L :        16ft   4.8m    0.0dB
FRONT R :        16ft   4.8m    0.0dB
SUBWOOFER :                   + 4.0dB

If OK, unplug calibration mic and select
"YES".
              YES      NO
```
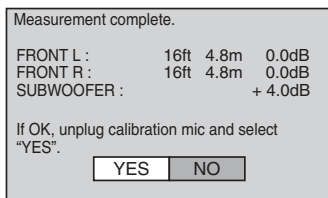
■ **The measurement is not OK.**

Follow the message, then select [YES] to retry.

```
Measurement failure.

Check front speaker connection.
Retry?
              YES
              NO
```
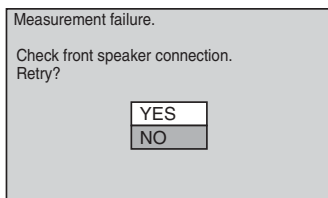
Note

• While the Auto Calibration function works:
  – do not turn off the power.
  – do not press any button.
  – do not change the volume.
  – do not change the function.
  – do not change the disc.
  – do not insert or eject a disc.
  – do not disconnect the calibration mic.
• Depending on the acoustics of the room, the displayed distance may not represent the actual distance.

To select the auto calibration setting mode

You can select the auto calibration setting mode.

1 Press AMP MENU.

2 Press ↑/↓ repeatedly until "A.CAL MODE" appears in the front panel display, then press ⊕ or →.

3 Press ↑/↓ to select a setting.

• ON: reflects the setting that is set by the auto calibration. When you adjust the woofer level using BASS/TREBLE (page 38) when set to "ON," each time you set this function from "OFF" to "ON," the adjusted value is restored.

• OFF: returns the woofer level to 0 dB, regardless of the speaker setting made by the auto calibration function.

4 Press ⊕ .

5 Press AMP MENU.

The AMP menu turns off.

Tip

• When you perform [AUTO CALIBRATION], "A.CAL MODE" is set to "ON" automatically.

Using the Setup Display

By using the Setup Display, you can make various adjustments to items such as picture and sound.

For an overall list of Setup Display items, see page 102.

Displayed items differ depending on the country model.

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 when the system is in stop mode.

The Control Menu appears.

2 Press ↑/↓ to select 🗃 [SETUP], then press ⊕.

The options for [SETUP] appear.

```
12(27)
18(34)                DVD VIDEO
    1:32:55

QUICK
 QUICK
 CUSTOM
 RESET
```
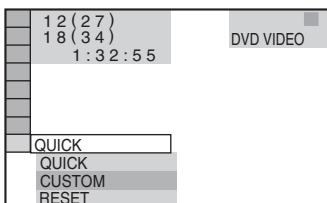
3 Press ↑/↓ to select [CUSTOM], then press ⊕.

The Setup Display appears.

```
LANGUAGE SETUP
OSD:              ENGLISH
MENU:             ENGLISH
AUDIO:           ORIGINAL
SUBTITLE:    AUDIO FOLLOW
```
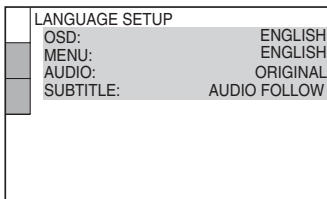
4 Press ↑/↓ to select the setup item from the displayed list: [LANGUAGE SETUP], [SCREEN SETUP], or [CUSTOM SETUP]. Then press ⊕.

The Setup item is selected.

Example: [SCREEN SETUP] (The displayed items are different depending on the area.)

Selected item

```
SCREEN SETUP
TV TYPE:                       16:9
HDMI RESOLUTION:               AUTO
YCBCR/RGB (HDMI):             YCBCR
SCREEN SAVER:                    ON
BACKGROUND:          JACKET PICTURE
BLACK LEVEL:                     ON
BLACK LEVEL (COMPONENT OUT):    OFF
4:3 OUTPUT:                    FULL
```
Setup items
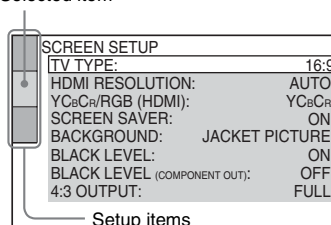
5 Select an item using ↑/↓, then press ⊕.

The options for the selected item appear.
Example: [TV TYPE]

```
SCREEN SETUP
TV TYPE:                       16:9
HDMI RESOLUTION:               16:9
YCBCR/RGB (HDMI):    4:3 LETTER BOX
SCREEN SAVER:          4:3 PAN SCAN
BACKGROUND:          JACKET PICTURE
BLACK LEVEL:                     ON
BLACK LEVEL (COMPONENT OUT):    OFF
4:3 OUTPUT:                    FULL
```
Options
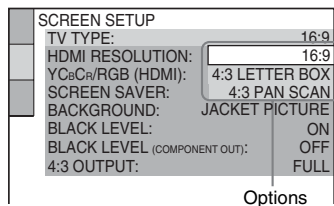
6 Select a setting using ↑/↓, then press ⊕.

The setting is selected and setup is complete.

```
SCREEN SETUP
TV TYPE:              4:3 LETTER BOX
HDMI RESOLUTION:               AUTO
YCBCR/RGB (HDMI):             YCBCR
SCREEN SAVER:                    ON
BACKGROUND:          JACKET PICTURE
BLACK LEVEL:                     ON
BLACK LEVEL (COMPONENT OUT):    OFF
4:3 OUTPUT:                    FULL
```
Selected setting
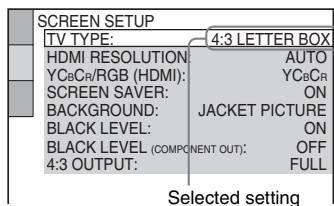
To reset all of the [SETUP] settings

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

2 Select [YES] using ↑/↓.
You can also quit the process and return to the Control Menu by selecting [NO] here.

3 Press ⊕ .
All the settings explained on pages 77 to 81 return to the default settings. Do not press I/
⏻ while resetting the system as it takes a few seconds to complete.

Note

• When you turn the system on after resetting and no disc is in the system, the guide message appears on the TV screen. To perform the Quick Setup (page 19), press ⊕ , 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 76).

```
          ┌─  LANGUAGE SETUP
          │   OSD:                ENGLISH
          │   MENU:               ENGLISH
          │   AUDIO:              ORIGINAL
          │   SUBTITLE:      AUDIO FOLLOW
```
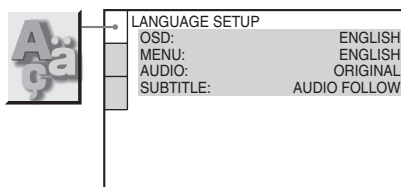
■ [OSD] (On-Screen Display)
Switches the display language on the screen.

■ [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 →] in [MENU], [AUDIO], and [SUBTITLE], select and enter a language code from "Language Code List" (page 93) 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 76).
The default settings are underlined.
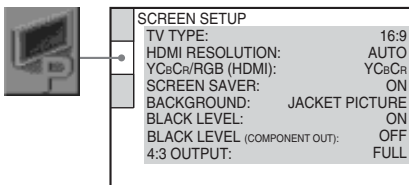
```
SCREEN SETUP
TV TYPE:                        16:9
HDMI RESOLUTION:                AUTO
YCBCR/RGB (HDMI):              YCBCR
SCREEN SAVER:                     ON
BACKGROUND:          JACKET PICTURE
BLACK LEVEL:                      ON
BLACK LEVEL (COMPONENT OUT):     OFF
4:3 OUTPUT:                     FULL
```

The displayed items are different depending on the area.

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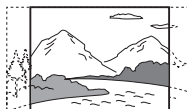
Note
• Depending on the DVD, [4:3 LETTER BOX] may be selected automatically instead of [4:3 PAN SCAN] or vice versa.

■ [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.**

* i: interlace, p: progressive

** Depending on the country, [720 × 480/576p] may appear.

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.
• When the HDMI indicator on the front panel lights up, images from the S VIDEO OUT jack is enlarged vertically. (Except when [720 × 480p] is selected.)

■ [YCBCR/RGB (HDMI)]

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

[YCʙCʀ]	Outputs YCʙCʀ signals.
[RGB]	Outputs RGB signals.

Note
- If the playback picture becomes distorted, set [YCʙCʀ] to [RGB].
- If the HDMI OUT jack is connected to equipment with a DVI jack, [RGB] signals will be automatically output even when you select [YCʙCʀ].

■ [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, DATA CD (MP3 audio), or DATA DVD for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press any button (e.g., ▷ button) to cancel the screen saver.

[ON]	Turns on the screen saver.
[OFF]	Turns off the screen saver.

■ [BACKGROUND]

Selects the background color or picture on the TV screen in stop mode or while playing a Super Audio CD, CD, DATA CD (MP3 audio), or DATA DVD.

[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] (North American models only)

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)] (North American models only)

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 78). Adjust to watch 4:3 aspect ratio progressive signals. If you can change the aspect ratio on your progressive format compatible TV, change the setting on your TV, not the system. Note that this setting is effective only for HDMI connection or progressive signals output from the COMPONENT VIDEO OUT jacks.

Note
- This setting is effective only when "P AUTO (PROGRESSIVE AUTO)" or "P VIDEO (PROGRESSIVE VIDEO)" is selected by using PROGRESSIVE (page 26).

[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.
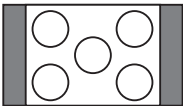
16:9 aspect ratio TV

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 76).
The default settings are underlined.

```
CUSTOM SETUP
PAUSE MODE:            AUTO
TRACK SELECTION:       OFF
MULTI-DISC RESUME:     ON
AUDIO DRC:             OFF
AUDIO (HDMI):          OFF
```
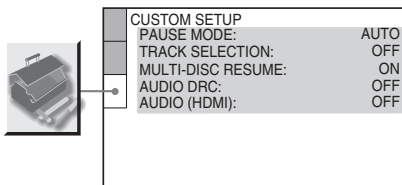
The displayed items are different depending on the area.

■ [PAUSE MODE] (DVD VIDEO/DVD-R/ DVD-RW only)
Selects the picture in pause mode.

[AUTO]	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.
[AUTO]	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 77). (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.

[ON]	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 DRC] (DVD VIDEO only)
Narrows the dynamic range of the sound track. Useful for watching movies at low volume late at night.

[OFF]	No compression of dynamic range.
[STANDARD]	Reproduces the sound track with the kind of dynamic range that the recording engineer intended.
[MAX]	Compresses dynamic range fully.

■ [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.
[AUTO]	Outputs audio signals that is matched to the requested audio stream from the connected TV.
[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].

• When you connect the system and TV with the HDMI cord and [AUTO] or [PCM] is selected, AUDIO DRC, A/V SYNC, MOVIE/MUSIC, and sound field are not applied to the sound that is output from the TV.

■ [DivX] (European models only)

Displays the registration code for this system. For more information, go to http://www.divx.com on the Internet.

Returning to the Default Settings

Returning the settings on the Setup Display to the default

1   Select [RESET] in Step 3 of "Using the Setup Display" (page 76) and press ⊕.

2   Select [YES] using ↑/↓.

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

3   Press ⊕.

All the settings explained on pages 77 to 81 return to the default settings. Do not press I/⏻ while resetting the system as it takes a few seconds to complete.

Note
• When you turn the system on after resetting and no disc is in the system, the guide message appears on the TV screen. To perform the Quick Setup (page 19), press ⊕, to return to normal screen, press CLEAR.

Returning the sound field settings or radio settings to the default
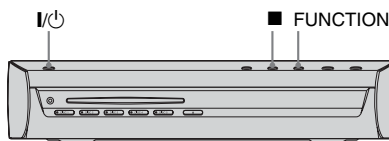
I/⏻   ■ FUNCTION

1   Press I/⏻ to turn on the system.

2   Press ■ and FUNCTION at the same time, and then press I/⏻.

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

Precautions

On power sources

• Unplug the unit from the wall outlet 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.

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 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 large loudspeakers.
• 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.
• Do not install the unit in an inclined position. It is designed to be operated in a horizontal position only.

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.
• If anything falls into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.

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 benzine.
If you have any questions or problems concerning your system, please consult your nearest Sony dealer.

On cleaning discs, disc/lens cleaner

• **Do not use a commercially available cleaning disc or disc/lens cleaner (wet or spray type). These may cause apparatus to 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 all discs are removed from the system.

3 Press ■ and ▲ at the same time, and then press I/(¹).
"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.

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.

Note that if service personnel changes some parts during repair, these parts may be retained.

Power

The power is not turned on.

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

If "PROTECTOR" and "PUSH POWER" appears alternately in the front panel display.

Press I/⏻ to turn off the system, and check the following items after "STANDBY" disappears.

- 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, 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 11, 23).
- 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 26).
- 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 26).
- Re-connect the connecting cord securely.
- 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 96.

- If the HDMI OUT jack is used for video output, changing the [HDMI RESOLUTION] setting in [SCREEN SETUP] may solve the problem (page 78).
  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.
- You have selected "PROGRESSIVE AUTO" or "PROGRESSIVE VIDEO" using the PROGRESSIVE button on the remote ("PROGRE" lights up in the front panel display) even though your TV cannot accept the progressive signal. In this case, disconnect the HDMI cord from the system and then select "INTERLACE" so that the PROGRESSIVE indicator turns off.
- If the signal from the S VIDEO OUT jack is distorted, change the [HDMI RESOLUTION] setting in [SCREEN SETUP] to [720 × 480p]*.

* Depending on the country, [720 × 480/576p] may appear.

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 23).

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 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 MUTING 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 $\triangleright$ to return to normal play mode.
- Fast forward or fast reverse is performed. Press $\triangleright$ to return to normal play mode.
- Check the speaker settings (page 17, 21).
- Super Audio CD audio signals are not output from the HDMI OUT jack.
- The equipment connected to the HDMI OUT jack does not conform to the audio signal format, in this case set [AUDIO (HDMI)] in [CUSTOM SETUP] to [PCM] (page 80).

No sound is output from the HDMI OUT jack.

- Set [AUDIO (HDMI)] in [CUSTOM SETUP] to [AUTO] or [PCM] (page 80).
- 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.
- Try the following: ① Turn the system off and on again. ② Turn the connected equipment off and on again. ③ Disconnect and then connect the HDMI cord again.

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 11, 17, 21).
- 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, a CD, or an MP3.

- Set [AUDIO] to [STEREO] by pressing AUDIO (page 47).
- 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 STAGE" (page 36).
- Check the speaker connections and settings (page 11, 17, 21).
- 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 62).
- 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 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 DATA DVD is not recorded in an MP3 format that conforms to UDF (Universal Disk Format).
- 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 57).
- If you cannot change the [MODE (MP3, JPEG)] setting, re-load the disc or turn the system off, then on.
- The DATA CD/DATA DVD contains a DivX video file. (European models only)

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.
- The DATA DVD is not recorded in a JPEG format that conforms to UDF (Universal Disk Format).
- 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 2,000,000 pixels in Progressive JPEG which is mainly used on the Internet WEB site.
- It does not fit the screen (those images are reduced).
- The [MODE (MP3, JPEG)] setting has been set to [AUDIO (MP3)] (page 57).
- If you cannot change the [MODE (MP3, JPEG)] setting, re-load the disc or turn the system off, then on.
- The DATA CD/DATA DVD contains a DivX video file. (European models only)

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

- [AUTO] has been selected in [MODE (MP3, JPEG)] (page 57).

The DivX video file cannot be played. (European models only)

- The file is not created in DivX format.
- The file has an extension other than ".AVI" or ".DIVX."

- The DATA CD/DATA DVD is not created in a DivX format that conforms to ISO 9660 Level 1/ Level 2 or, Joliet/UDF.
- The DivX video file is larger than 720 (width) × 576 (height).

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 42).
- 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 77).

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 52).
- 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 or DATA DVD.

- The MP3 audio track/JPEG image file/DivX video 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 file you want to play has the extension ".AVI" or ".DIVX" but is not in DivX format, or is in DivX format but does not conform to a DivX Certified profiles.*

* European models only.

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 83).
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

When displaying the version number on the screen

When you turn on the system, the version number [VER.X.XX] (X is a number) may appear on the screen. Although this is not a malfunction and for Sony service use only, normal system operation will not be possible. Turn off the system, and then turn on the system again to operate.

Specifications

AUDIO POWER SPECIFICATIONS
for the US model
POWER OUTPUT AND
TOTAL HARMONIC
DISTORTION

(FTC Output Power):	Front: 38 W/ch 4 ohms at 150 -20,000 Hz, 0.7% THD
	Front surround: 38 W/ch 4 ohms at 150 -20,000 Hz, 0.7% THD
	Subwoofer: 38 W/ch 4 ohms at 25 - 150 Hz, 0.7 % THD

Amplifier section
Front

Power output (rated):	70 W + 70 W (4 ohms, 1 kHz, 1 % THD)
RMS output power (reference):	
	80 W + 80 W (4 ohms, 1 kHz, 10 % THD)

Front surround*

Power output (rated):	70 W + 70 W (4 ohms, 1 kHz, 1 % THD)
RMS output power (reference):	
	80 W + 80 W (4 ohms, 1 kHz, 10 % THD)

Subwoofer

Power output (rated):	70 W + 70 W (4 ohms, 100 Hz, 1 % THD)
RMS output power (reference):	
	80 W + 80 W (4 ohms, 100 Hz, 10 % THD)

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

Inputs (Analog)
VIDEO1, VIDEO2, TV, AUDIO IN

	Sensitivity: 450 mV (ATT ON), 250 mV (ATT OFF)
	Impedance: 50 kilohms

Inputs (Digital/COAXIAL)

VIDEO1 , VIDEO2	Impedance: 75 ohms

Super Audio CD/DVD system

Laser	Semiconductor laser (Super Audio CD/DVD: λ = 650 nm) (CD: λ = 790 nm) Emission duration: continuous

Signal format system
For North American models:

	NTSC
For European models:	NTSC/PAL

Tuner section

System	PLL quartz-locked digital synthesizer system

FM tuner section
Tuning range
For North American models:

	87.5 – 108.0 MHz (100 kHz step)
For European models:	87.5 – 108.0 MHz (50 kHz step)
Antenna (aerial)	FM wire antenna (aerial)
Antenna (aerial) terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz

AM tuner section
Tuning range
For North American models:

	530 – 1,710 kHz (with the interval set at 10 kHz)
	531 – 1,710 kHz (with the interval set at 9 kHz)
For European models:	531 – 1,602 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 P_B/C_B, P_R/C_R: 0.7 Vp-p 75 ohms HDMI OUT: Type A (19 pin)
Inputs	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	Closed type, magnetically shielded
Speaker unit	25 mm (1 inch) balance drive type × 1, 50 mm (2 inches) cone type × 2
Rated impedance	4 ohms

Dimensions (approx.)	$183 \times 75 \times 123$ mm
	($7 \frac{1}{4} \times 3 \times 4 \frac{7}{8}$ inches)
	(w/h/d)
	$183 \times 110 \times 148$ mm
	($7 \frac{1}{4} \times 4 \frac{3}{8} \times 5 \frac{7}{8}$ inches)
	with stand (w/h/d)
Mass (approx.)	0.8 kg (1 lb 13 oz)
	1.0 kg (2 lb 4 oz) with
	stand

Subwoofer

Speaker system	Bass reflex, magnetically shielded
Speaker unit	150 mm (6 inches) cone type $\times$ 2
Rated impedance	4 ohms
Dimensions (approx.)	$205 \times 440 \times 400$ mm
	($8 \frac{1}{8} \times 17 \frac{3}{8} \times 15 \frac{3}{4}$ inches) (w/h/d)
Mass (approx.)	9.3 kg (20 lb 9 oz)

General

Power requirements
For North American models:

$\qquad$ 120 V AC, 60 Hz

For European models:	230 V AC, 50 Hz
Power consumption	On: 165 W
	Standby: 0.3 W (at the Power Saving mode)
Dimensions (approx.)	$413 \times 90 \times 325$ mm
	($16 \frac{3}{8} \times 3 \frac{5}{8} \times 12 \frac{7}{8}$ inches) (w/h/d) incl. projecting parts
Mass (approx.)	5.5 kg (12 lb 3 oz)

Design and specifications are subject to change without notice.

Unpacking
• Speakers (2)
• Subwoofer (1)
• AM loop antenna (aerial) (1)
• FM wire antenna (aerial) (1)
• Speaker cord (1)
• Video cord (1)
• Conversion connector (European models only) (1)
• Remote Commander (remote) (1)
• R6 (size AA) batteries (2)
• Calibration mic (1)
• Speaker stands (2)
• Screws (2)
• Operating Instructions
• Setup Disc (1)
• Quick Start Guide (card) (1)

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.

Digital Cinema Auto Calibration
Digital Cinema Auto Calibration was developed by Sony to automatically measure and adjusts the speaker settings to your listening environment in a short period of time.

DivX®
Digital video technology created by DivX, Inc. Videos encoded with DivX technology are among the highest quality with a relatively small file size.

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

continued

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 or a DivX video* on a DATA CD/DATA DVD. ("File" is an exclusive definition for this system.) A single file consists of a single image or movie.

* European models only.

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.

Mica-reinforced-cellular-diaphragm

The Mica-reinforced-cellular-diaphragm is made of a light weight and highly rigid composite material that consists of Mica flake and synthetic fiber.

It is constructed with layers of Mica flake. This construction realizes diaphragm with low density and high rigidity at the same time. In this system, a Mica-reinforced-cellular-diaphragm is used for the subwoofer.

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 50 - 60 frames per second by reproducing all scanning lines (525 lines for the NTSC system, 625 lines for the PAL system). The overall picture quality increases and still images, text and horizontal lines appear sharper. This format is compatible with the 525 or 625 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.

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 supports a higher power efficiency and improved thermal performance.

Scene

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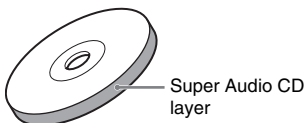
Super Audio CD

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)

Super Audio CD layer

Hybrid disc[2]
(a disc with a Super Audio CD layer and a CD layer)

CD layer[3]

Super Audio CD layer[3]
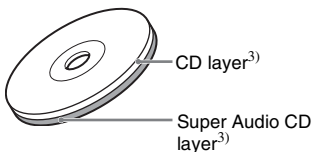
[1]You can play the CD layer on a conventional CD player.

[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 53).

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, Super Audio 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	Code	Language
1027	Afar	1183	Irish	1347	Maori	1507	Samoan
1028	Abkhazian	1186	Scots Gaelic	1349	Macedonian	1508	Shona
1032	Afrikaans	1194	Galician	1350	Malayalam	1509	Somali
1039	Amharic	1196	Guarani	1352	Mongolian	1511	Albanian
1044	Arabic	1203	Gujarati	1353	Moldavian	1512	Serbian
1045	Assamese	1209	Hausa	1356	Marathi	1513	Siswati
1051	Aymara	1217	Hindi	1357	Malay	1514	Sesotho
1052	Azerbaijani	1226	Croatian	1358	Maltese	1515	Sundanese
1053	Bashkir	1229	Hungarian	1363	Burmese	1516	Swedish
1057	Byelorussian	1233	Armenian	1365	Nauru	1517	Swahili
1059	Bulgarian	1235	Interlingua	1369	Nepali	1521	Tamil
1060	Bihari	1239	Interlingue	1376	Dutch	1525	Telugu
1061	Bislama	1245	Inupiak	1379	Norwegian	1527	Tajik
1066	Bengali; Bangla	1248	Indonesian	1393	Occitan	1528	Thai
		1253	Icelandic	1403	(Afan)Oromo	1529	Tigrinya
1067	Tibetan	1254	Italian	1408	Oriya	1531	Turkmen
1070	Breton	1257	Hebrew	1417	Punjabi	1532	Tagalog
1079	Catalan	1261	Japanese	1428	Polish	1534	Setswana
1093	Corsican	1269	Yiddish	1435	Pashto; Pushto	1535	Tonga
1097	Czech	1283	Javanese			1538	Turkish
1103	Welsh	1287	Georgian	1436	Portuguese	1539	Tsonga
1105	Danish	1297	Kazakh	1463	Quechua	1540	Tatar
1109	German	1298	Greenlandic	1481	Rhaeto-Romance	1543	Twi
1130	Bhutani	1299	Cambodian			1557	Ukrainian
1142	Greek	1300	Kannada	1482	Kirundi	1564	Urdu
1144	English	1301	Korean	1483	Romanian	1572	Uzbek
1145	Esperanto	1305	Kashmiri	1489	Russian	1581	Vietnamese
1149	Spanish	1307	Kurdish	1491	Kinyarwanda	1587	Volapük
1150	Estonian	1311	Kirghiz	1495	Sanskrit	1613	Wolof
1151	Basque	1313	Latin	1498	Sindhi	1632	Xhosa
1157	Persian	1326	Lingala	1501	Sangho	1665	Yoruba
1165	Finnish	1327	Laothian	1502	Serbo-Croatian	1684	Chinese
1166	Fiji	1332	Lithuanian			1697	Zulu
1171	Faroese	1334	Latvian; Lettish	1503	Singhalese		
1174	French			1505	Slovak		
1181	Frisian	1345	Malagasy	1506	Slovenian	1703	Not specified

Parental Control Area Code List

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

Index to Parts and Controls

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

Front panel
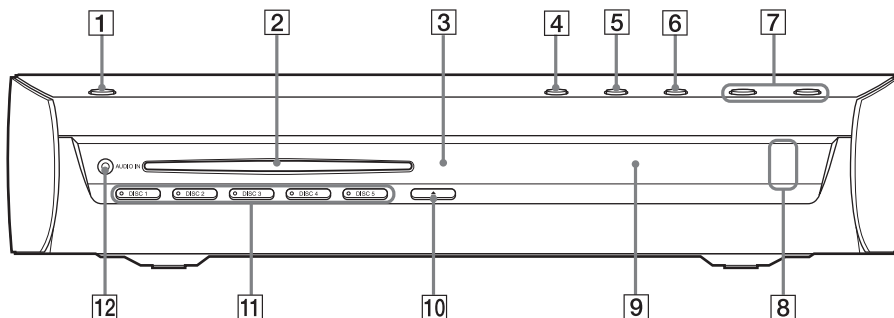
1. I/(1) **(on/standby) (21, 31)**
2. **Disc slot (31)**
3. ⊞ **(remote sensor) (10)**
4. ▶ **(play) (31)**
5. ■ **(stop) (31)**
6. **FUNCTION (31)**
7. **VOLUME –/+ (31)**
8. **Front surround indicator (36)**
9. **Front panel display (96)**
10. ⏏ **(eject) (31)**
11. **DISC 1-5/indicator (31)**
12. **AUDIO IN jack (30)**

Rear panel
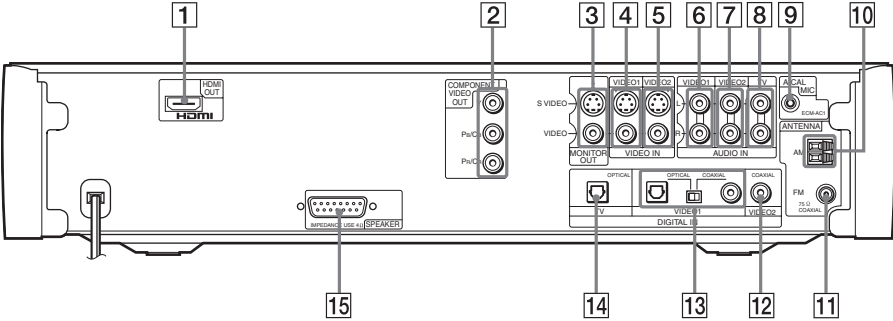
1. **HDMI OUT jack (23)**
2. **COMPONENT VIDEO OUT jacks (23)**
3. **MONITOR OUT (S VIDEO/VIDEO) jacks (23)**
4. **VIDEO1 (VIDEO IN, S VIDEO/VIDEO) jacks (28)**
5. **VIDEO2 (VIDEO IN, S VIDEO/VIDEO) jacks (28)**
6. **VIDEO1 (AUDIO IN L/R) jacks (28)**
7. **VIDEO2 (AUDIO IN L/R) jacks (28)**
8. **TV (AUDIO IN L/R) jacks (11)**
9. **A.CAL MIC jack (19, 73)**
10. **AM terminal (11)**
11. **FM 75Ω COAXIAL jack (11)**
12. **VIDEO2 (DIGITAL IN COAXIAL) jack (28)**
13. **VIDEO1 (DIGITAL IN COAXIAL/OPTICAL) jacks (28)**
14. **TV (DIGITAL IN OPTICAL) jack (23)**
15. **SPEAKER jacks (11)**

Additional Information

95US

Front panel display

About the indications in the front panel display

A **Lights up when the sleep timer is set. (68)**

B **Current surround format (Except for JPEG and Super Audio CD)**

C **Playing status (DVD function only)**

D **Lights up when the time information of a title or chapter appears in the front panel display. (DVD only) (49)**

E **Lights up when a station is received. (Radio only) (62)**

F **Monaural/Stereo effect (Radio only) (63)**

G **Lights up when the music or movie mode is selected. (35)**

H **Displays system's status such as chapter, title, or track number, time information, radio frequency, playing status, sound field, etc.**

I **Lights up when the system outputs progressive signals (DVD function only). (26)**

J **Lights up when the HDMI OUT jack is correctly connected to HDCP (high-bandwidth digital content protection) compliant device with HDMI or DVI (digital visual interface) input. (23)**

K **Lights up when Super Audio CD/CD is loaded.**

Remote control

With the cover opened.

1. **TV I/**(1) **(on/standby) (66)**
2. **TV button/TV mode indicator (66)**
3. **SLEEP (68)**
4. **DISPLAY (49, 64)**
5. **Number buttons** [2][3] **(63, 65, 70)**
6. **CLEAR (40, 63, 67, 77)**
   -/-- [3] **(66)**
7. **MOVIE/MUSIC (35)**
8. **SOUND FIELD (36)**
9. **DVD TOP MENU (46)**
10. **←/↑/↓/→/** ⊕ **(19, 21, 33, 40, 62, 70)**
11. **⌐ RETURN** [3] **(41)**
12. **I◄◄/►►I (31)**
    PRESET –/+ (63)
13. **←•/•→ (instant replay/instant advance) (31)**
    ◄II/II► STEP (39)

14. **◄◄/►► (39)**
    ◄I/I► (39)
    TUNING –/+ (62)
15. **DISC SKIP (31)**
16. **VOLUME +/– (21, 31, 63)**
    TV VOL +/– [3] **(66)**
17. **MUTING (31)**
18. **AUDIO** [2] **(47, 68)**
19. **PICTURE NAVI (41)**
20. **PROGRESSIVE (26)**
21. **DIMMER (69)**
22. **FM MODE (63)**
23. **DIRECT TUNING (63)**
24. **I/**(1) **(on/standby) (19, 21, 31, 42, 63)**
25. **THEATRE SYNC (67)**
26. **TV/VIDEO (66)**
27. **ENTER** [1][3] **(19, 21, 33, 40, 62, 70)**
28. **BASS/TREBLE (38)**
29. **DVD MENU (46)**
    TOOLS [3] **(66)**
30. ▭ **DISPLAY (20, 40, 70, 98)**
    TV MENU [3] **(66)**
31. ▷ **(play)** [2] **(21, 31, 42)**
32. ■ **(stop) (32, 42, 70)**
33. II **(pause) (32)**
34. **FUNCTION +/–** [2] **(21, 26, 31, 33, 62, 73)**
    TV CH +/– [3] **(66)**
35. **SUBTITLE (52)**
36. **ANGLE (52)**
37. **SA-CD/CD (53)**
38. **REPEAT (45)**
39. **AMP MENU (33, 36, 69, 75, 103)**
40. **TUNER MENU (62)**

[1] The ENTER button is the same function as the ⊕ button.

[2] The ▷ [31], 5 [5], AUDIO [18], and FUNCTION +/– [34] buttons have tactile dots. Use the tactile dots as references when operating the system.

[3] These buttons change to the TV operation buttons when the remote is in TV mode. The remote is in TV mode when the TV mode indicator [2] lights up by pressing the TV button [2].

Guide to the Control Menu Display
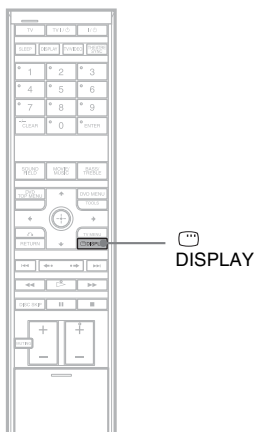
DISPLAY

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 1
           ↓
    Control Menu display 2 (appears for certain discs only)
           ↓
    Control Menu display off
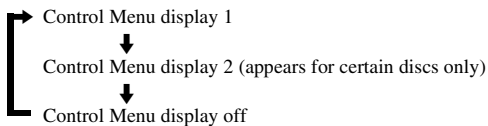
Control Menu display

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.

Currently playing title number[1]

Currently playing chapter number[2]

Total number of titles[1]

Total number of chapters[2]

Playback status
(► Playback,
II Pause,
■ Stop, etc.)

Control Menu items

Selected item

```
1 2  ( 2 7 )                        ►
1 8  ( 3 4 )              DVD VIDEO
T    1 : 3 2 : 5 5

OFF
OFF
ALL DISCS
ONE DISC
TITLE
CHAPTER
```

Type of disc being played[3]

Playing time[4]

Current setting

Options

Function name of selected Control Menu item

REPEAT
⬜⬆⬇➡ ➡ ENTER Quit: DISPLAY

Operation message

[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/DATA DVDs. DivX video album number for DATA CDs/DATA DVDs (European models only).

[2] Displays the index number for VIDEO CDs/Super Audio CDs, MP3 audio track number, or JPEG image file number for DATA CDs/DATA DVDs. DivX video file number for DATA CDs/DATA DVDs (European models only).

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

[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 40)/[SCENE] (page 40)/[TRACK] (page 40)** Selects the title, scene, or track to be played. DVD-V DVD-VR VIDEO CD
⬜	**[CHAPTER] (page 40)/[INDEX] (page 40)** Selects the chapter or index to be played. DVD-V DVD-VR VIDEO CD
⬜	**[INDEX] (page 40)** Displays the index and selects the index to be played. Super Audio CD
⬜	**[TRACK] (page 40)** Selects the track to be played. CD DATA-CD DATA DVD Super Audio CD
⬜	**[ORIGINAL/PLAY LIST] (page 49)** Selects the type of titles (DVD-RW/DVD-R) to be played, the [ORIGINAL] one, or an edited [PLAY LIST]. DVD-VR

	[TIME/TEXT] (page 40) 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-VR` `VIDEO CD` `CD` `DATA-CD` `DATA DVD` `Super Audio CD`
	[AUTO CALIBRATION] (page 73) Adjust the level of each speaker automatically. `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA-CD` `DATA DVD` `Super Audio CD`
	[PROGRAM] (page 43) Selects the track to play in the order you want. `VIDEO CD` `CD` `Super Audio CD`
	[SHUFFLE] (page 44) Plays the track in random order. `VIDEO CD` `CD` `DATA-CD` 1) `DATA DVD` 1) `Super Audio CD`
	[REPEAT] (page 45) Plays the entire disc (all titles/all tracks/all albums) repeatedly or one title/chapter/track/album repeatedly. `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA-CD` `DATA DVD` `Super Audio CD`
	[A/V SYNC] (page 53) Adjusts the delay between the picture and sound. `DVD-V` `DVD-VR` `VIDEO CD` `DATA-CD` 2) `DATA DVD` 2)
	[PARENTAL CONTROL] (page 70) Sets to prohibit playback on this system. `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA-CD` `DATA DVD` `Super Audio CD`
	[SETUP] (page 76) [QUICK] Setup (page 19) Use Quick Setup to choose the desired language of the on-screen display and the aspect ratio of the TV. [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-VR` `VIDEO CD` `CD` `DATA-CD` `DATA DVD` `Super Audio CD`
	[ALBUM] (page 40) Selects the album to be played. `DATA-CD` `DATA DVD`
	[FILE] (page 40) Selects the JPEG image file or DivX video file2) to be played. `DATA-CD` `DATA DVD`
3)	**[DATE] (page 51)** Displays the date the picture was taken by a digital camera. `DATA-CD` `DATA DVD`
3)	**[INTERVAL] (page 57)** Specifies the duration for which the slides are displayed on the screen. `DATA-CD` `DATA DVD`
3)	**[EFFECT] (page 57)** Selects the effects to be used for changing slides during a slide show. `DATA-CD` `DATA DVD`
3)	**[MODE (MP3, JPEG)] (page 57)** Selects the data type; MP3 audio track (AUDIO), JPEG image file (IMAGE) or both (AUTO) to be played when playing a DATA CD/DATA DVD. `DATA-CD` `DATA DVD`

1)Except for DivX. (European models only)

2)Only for DivX. (European models only)

3)These items are not displayed when playing a DATA CD/DATA DVD with DivX video file. (European models only)

Tip

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

Additional Information

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.

LANGUAGE SETUP
- OSD[1]
- MENU[1]
- AUDIO[1]
- SUBTITLE[1]

CUSTOM SETUP
- PAUSE MODE
  - AUTO
  - FRAME
- TRACK SELECTION
  - OFF
  - AUTO
- MULTI-DISC RESUME
  - ON
  - OFF
- AUDIO DRC
  - OFF
  - STANDARD
  - MAX
- AUDIO (HDMI)
  - OFF
  - AUTO
  - PCM
- DivX[3]

SCREEN SETUP
- TV TYPE
  - 16:9
  - 4:3 LETTER BOX
  - 4:3 PAN SCAN
- HDMI RESOLUTION
  - AUTO
  - 1920 × 1080i
  - 1280 × 720p
  - 720 × 480p/576p
- YC_BC_R/RGB (HDMI)
  - YC_BC_R
  - RGB
- SCREEN SAVER
  - ON
  - OFF
- BACKGROUND
  - JACKET PICTURE
  - GRAPHICS
  - BLUE
  - BLACK
- BLACK LEVEL[2]
  - ON
  - OFF
- BLACK LEVEL (COMPONENT OUT)[2]
  - OFF
  - ON
- 4:3 OUTPUT
  - FULL
  - NORMAL

[1]Select the language you want to use from the displayed language list.

[2]North American models only.

[3]European models only.

AMP Menu List

You can set the following items with AMP MENU on the remote.

AMP menu

```
─ DIMMER ──────── DIMMER OFF
│                ├ DIMMER 1
│                └ DIMMER 2
├ ATTENUATE* ── ┬ ATT ON
│               └ ATT OFF
├ AUTO.M.SET ── ┬ FOCUS SUR
│               └ WIDE STAGE
└ A.CAL MODE ── ┬ OFF
                └ ON
```
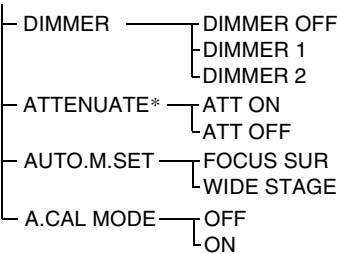
* "ATTENUATE" may not appear depending on the selected function.

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