CD/DVD Player

Operating Instructions
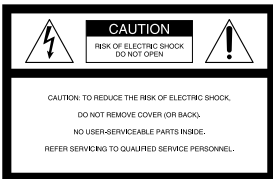
DVP-NS400D

WARNING

**To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.**

CAUTION

The use of optical instruments with this product will increase eye hazard. As the laser beam used in this CD/DVD player is harmful to eyes, do not attempt to disassemble the cabinet.
Refer servicing to qualified personnel only.

```
        ┌──────────────────────┐
  ⚡     │      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.

CAUTION

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

For customers in the U.S.A

Owner's Record

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

Model No. DVP-NS400D
Serial No._____

CAUTION

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

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.
- 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.

Welcome!

Thank you for purchasing this Sony CD/DVD player. Before operating the player, please read this manual thoroughly and retain it for future reference.

Precautions

On safety

- Caution – The use of optical instruments with this product will increase eye hazard.
- Should any solid object or liquid fall into the cabinet, unplug the player and have it checked by qualified personnel before operating it any further.

On power sources

- The player is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the player itself has been turned off.
- If you are not going to use the player for a long time, be sure to disconnect the player from the wall outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.
- Should the AC power cord need to be changed, have it done at a qualified service shop only.

On placement

- Place the player in a location with adequate ventilation to prevent heat build-up in the player.
- Do not place the player on a soft surface such as a rug that might block the ventilation holes on the bottom.
- Do not place the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.

On operation

- If the player 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 player. Should this occur, the player may not operate properly. In this case, remove the disc and leave the player turned on for about half an hour until the moisture evaporates.
- When you move the player, take out any discs. If you don't, the disc may be damaged.

On adjusting volume

Do not turn up the volume while listening to a section with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level section is 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 player, please consult your nearest 3 dealer.

On cleaning discs

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

IMPORTANT NOTICE

Caution: This player 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.

Table of Contents

About this Manual

- Instructions in this manual describe the controls on the remote. You can also use the controls on the player if they have the same or similar names as those on the remote.
- The meaning of the icons used in this manual is described below:

Icon	Meaning	Icon	Meaning
DVD	Functions available in DVD video mode	CD	Functions available in music CD mode
VIDEO CD	Functions available in VIDEO CD mode	☼	More convenient features

This Player Can Play the Following Discs

Format of discs	
DVD VIDEO	DVD VIDEO
VIDEO CD	COMPACT disc DIGITAL VIDEO
Music CD	COMPACT disc DIGITAL AUDIO

The "DVD VIDEO" logo is a trademark.

Region code

Your player has a region code printed on the back of the unit and will only play DVDs labeled with identical region codes.

DVDs labeled 🌐 will also play on this player.
If you try to play any other DVD, the message "Playback prohibited by area limitations." will appear on the TV screen. Depending on the DVD, no region code indication may be labeled even though playing the DVD is prohibited by area restrictions.

Region code
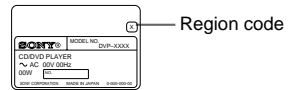
Example of discs that the player cannot play

The player cannot play the following discs:
- CD-ROMs (PHOTO CDs included)
- All CD-Rs other than music and VCD format CD-Rs
- Data part of CD-Extras
- DVD-ROMs
- DVD Audio discs
- HD layer on SACDs

Also, the player cannot play the following discs:
- A DVD with a different region code (page 79).
- A disc recorded in a color system other than NTSC, such as PAL or SECAM (This player conforms to the NTSC color system).
- 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.

Some CD-Rs or CD-RWs cannot be played on this player depending upon the recording quality or physical condition of the disc, or the characteristics of the recording device.

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

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 player 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 method claims of certain U.S. patents, other intellectual property rights owned by Macrovision Corporation, and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

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 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 centre out.

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

Index to Parts and Controls

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

Front Panel
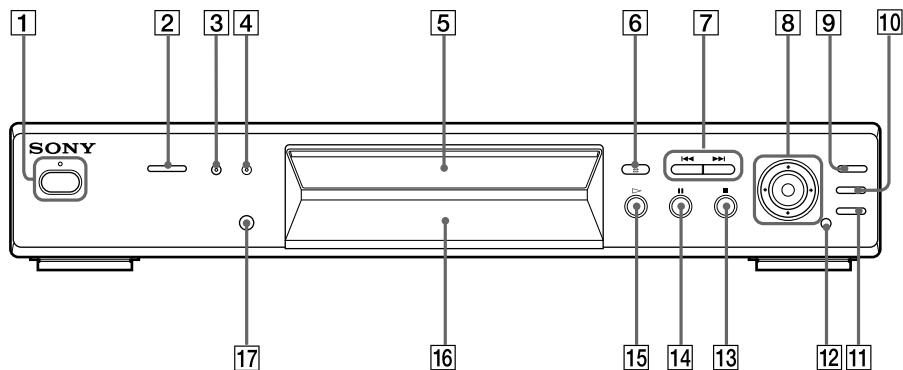
1. POWER switch/indicator (30)
2. DOLBY DIGITAL indicator
   Lights up when:
   - playing back a Dolby Digital soundtrack on the DVD
   - the disc is not inserted
3. BNR (Block Noise Reduction) button/indicator (56)
4. SURROUND button/indicator (50)
5. Disc tray (30)
6. ⏏ (open/close) button (30)
7. ⏮/⏭ (previous/next) buttons (31)
8. ←/↑/↓/→/ ENTER buttons (25)
9. TITLE button (33)
10. DVD MENU button (33)
11. ♂ RETURN button (34)
12. DISPLAY button (12)
13. ■ (stop) button (30)
14. ❙❙ (pause) button (31, 62)
15. ▷ (play) button (30)
16. Front panel display (9)
17. 📶 (remote sensor) (14)

8

Front Panel Display

When playing back a DVD

Disc type

Playing status

Current chapter (44)

DVD ► ❚❚
PGM SHUFFLE
DTS ANGLE REPEAT1
DD Digital A-B

TITLE
1.

CHAP
2

HOUR   MIN   SEC
12:23:30

Current audio signal (49)

Current play mode (35)

Current title (44)

Playing time (44)

Lights up when you can change the angle (54)

When playing back a VIDEO CD (PBC)

Disc type

Playing status

VIDEO CD ► ❚❚

A-B   PBC

MIN   SEC
22:25

Current play mode (35)

Current scene (44)

Playing time (44)

Lights up when playing back a VIDEO CD with PBC (34)

When playing back a CD or VIDEO CD (without PBC)

Playing status

VIDEO CD ► ❚❚
PGM SHUFFLE
REPEAT1
A-B
CD

TRACK
2.

INDEX
1

MIN   SEC
22:25

Disc type

Current play mode (35)

Current track and index (44)

Playing time (44)

9
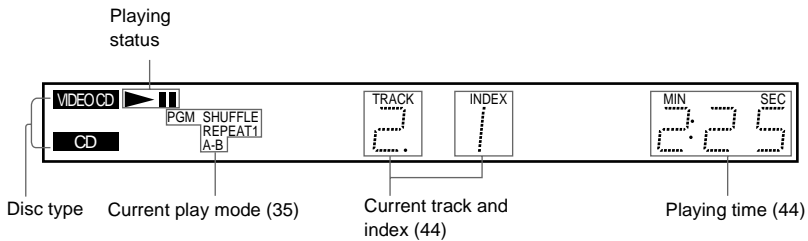
Rear Panel
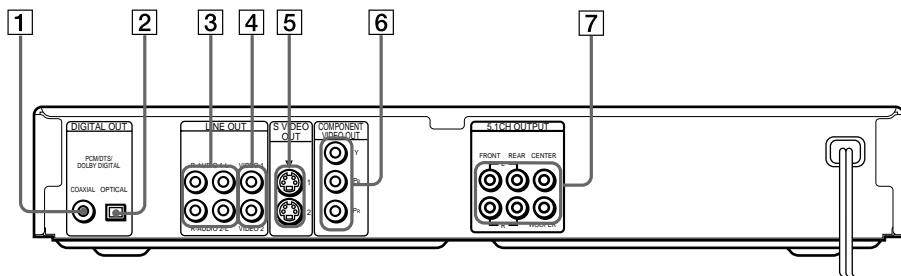
1 DIGITAL OUT (COAXIAL) jack (21, 23, 24)
2 DIGITAL OUT (OPTICAL) jack (21, 23, 24)
3 LINE OUT L/R (AUDIO) 1/2 jacks (15, 20, 23, 24)
4 LINE OUT (VIDEO) 1/2 jacks (17)

5 S VIDEO OUT 1/2 jacks (17)
6 COMPONENT VIDEO OUT jacks (17)
7 5.1CH OUTPUT jacks (21)

10

Remote
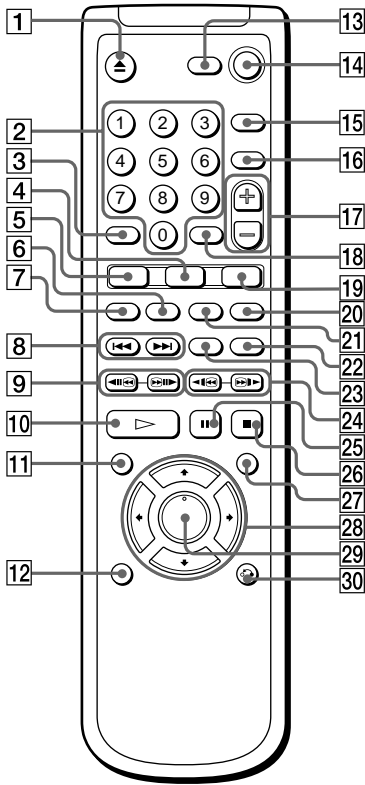
A ⏏ OPEN/CLOSE button (31)

B Number buttons

C CLEAR button (35)

D ANGLE button (54)

E AUDIO button (48)

F PROGRAM button (35)

G SHUFFLE button (37)

H ⏮/⏭ PREV/NEXT buttons (31)

I ◀II⏪/⏩II▶ SEARCH/STEP buttons (40)

J ▷ PLAY button (30)

K TITLE button (33)

L DISPLAY button (35)

M TV I/⏻ (on/standby) button (63)

N I/⏻ (on/standby) button (30)

O BNR (Block Noise Reduction) button (56)

P TV/VIDEO button (63)

Q VOL +/– buttons (63)

R ENTER button

S SUBTITLE button (55)

T TIME/TEXT button (44)

U REPEAT button (37)

V INSTANT REPLAY button (31)

W SURROUND button (50)

X ◀I⏪/⏩I▶ SCAN/SLOW buttons (40)

Y II PAUSE button (31)

Z ■ STOP button (30)

wj DVD MENU button (33)

wl ←/↑/↓/→ buttons (25)

wm ENTER button

w; ⦿ RETURN button (34)

11

Guide to Control Menu Display

Use the Control Menu to select a function that you'd like to use. The Control Menu display
appears when the DISPLAY button is pressed. For details, please refer to the page in parentheses.

Control Menu

Total number of titles or tracks recorded
Current playing title number
(Video CD/CD: track number)
Current playing chapter
number (Video CD/CD:
index number)
Playing time
Icon of selected
Control Menu item
Control Menu items
Function name of selected
Control Menu item
Operation message

Total number of chapters or indexes recorded
Playback status
(▶Playback, ❚❚Pause, ■Stop, etc.)
Type of disc being
played back
Current setting
Options

```
1 2 ( 2 7 )
1 8 ( 3 4 )          PLAY ▶
T     1 : 3 2 : 5 5          DVD

●   OFF                    ⎤
    OFF                    ⎟
    1: ENGLISH             ⎟
    2: FRENCH              ⎟
    3: SPANISH             ⎦

SUBTITLE
Select: ◀▲▼▶ ➡ ENTER Cancel: RETURN
```

List of Control Menu Items

🎬 **TITLE (DVD only) (page 41)/ SCENE (only VIDEO CD in PBC playback) (page 41)/TRACK (VIDEO CD only) (page 41)**	Selects the title (DVD), the scene (VIDEO CD in PBC playback) or the track (VIDEO CD) to be played.
🎞 **CHAPTER (DVD only) (page 41)/INDEX (VIDEO CD only) (page 41)**	Selects the chapter (DVD) or the index (VIDEO CD) to be played.
🎵 **TRACK (CD only) (page 41)**	Selects the track (CD) to be played.
▷ **INDEX (CD only) (page 41)**	Selects the index (CD) to be played.
🕐 **TIME/TEXT (page 44)**	Check the elapsed time and the remaining playback time. Input the time code for picture and music searching. Displays the DVD or the CD text.
◐))) **AUDIO (page 48)**	Changes the audio setting.
▭ **SUBTITLE (DVD only) (page 55)**	Displays the subtitles. Changes the subtitle language.
📹 **ANGLE (DVD only) (page 54)**	Changes the angle.
((🔲)) **SURROUND (page 50)**	Selects the surround functions.

12

![icon] **ADVANCED (DVD only) (page 47)**		Checks the information (bit rate or layer) on the disc while playing a DVD.
![icon] **CUSTOM PARENTAL CONTROL (page 58)**		Sets the disc to prohibit playing.
![icon] **SETUP (page 65)**		QUICK Setup (page 25) Use Quick Setup to choose the desired language of the on screen display, the shape of the TV screen, the audio output, and speakers connected to the player. CUSTOM Setup In addition to the Quick Setup setting, you can adjust the image and sound quality, Parental Control, and other various settings. RESET Returns the settings in "SETUP" to the default setting.
![icon] **PROGRAM (page 35)**		Selects the title, the chapter or the track to play a disc in the order you want.
![icon] **SHUFFLE (page 37)**		Plays the title, the chapter or the track in random order.
![icon] **REPEAT (page 37)**		Plays the entire disc (all titles/all tracks) repeatedly or one title/chapter/track repeatedly.
![icon] **A-B REPEAT (page 38)**		Specifies the parts you want to play repeatedly.
![icon] **BNR (page 56)**		Adjusts the picture quality by reducing the "block noise" or mosaic like patterns that appear on your TV screen.
![icon] **DIGITAL VIDEO ENHANCER (page 57)**		Exaggerates the outline of the image to produce a sharper picture.
![icon] **VIEWER (DVD/VIDEO CD only) (page 42)**		Divides the screen into 9 sub-screens to help you find the scene you want quickly.

✣ Each time you press DISPLAY, the Control Menu display changes as follows:

➡ Control Menu display 1
　　⬇
Control Menu display 2
(The items except the first three items from the top are changed to other items.)
　　⬇
ADVANCED display (Appears if you select any setting other than "OFF." See page 47.)
　　⬇
⎣ Control Menu display off
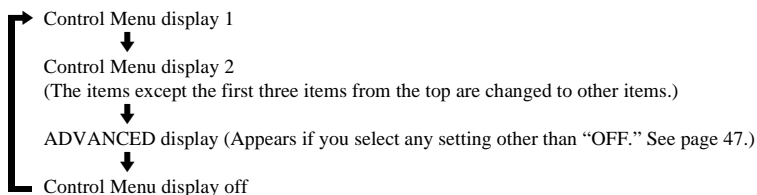
You can display the Control Menu display 1 only during CD playback. The Control Menu items are different depending on the disc.

✣ The Control Menu icon indicator lights up in green ⎡ (▣)) ⎤ → ▮ (▣)) when you select any item except "OFF." ("SURROUND," "PROGRAM," "SHUFFLE," "REPEAT," "A-B Repeat," "DIGITAL VIDEO ENHANCER" only). The "ANGLE" indicator lights up in green only when the angles can be changed.

13

Quick Overview

A quick overview presented in this chapter will give you enough information to start using the player for your enjoyment. To use the surround sound features of this player, refer to "Hookups" on page 17.

Note

You cannot connect this player to a TV that does not have a video input jack.
Be sure to turn off the power of each component before connecting.

Step 1: Unpacking

Check that you have the following items:
• Audio/video cord (pinplug × 3 ←→ pinplug × 3) (1)
• Remote commander (remote) RMT-D128A (1)
• Size AA (R6) batteries (2)

Step 2: Inserting Batteries into the Remote

You can control the player using the supplied remote. Insert two size AA (R6) 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 player.
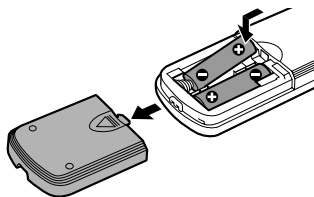
Notes

• Do not leave the remote in an extremely hot or humid place.
• 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 use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

14

Step 3: TV Hookups

Connect the supplied audio/video cord and power cord in the order ($\boxed{1}$~$\boxed{3}$) shown below. Be sure to connect the power cord last.
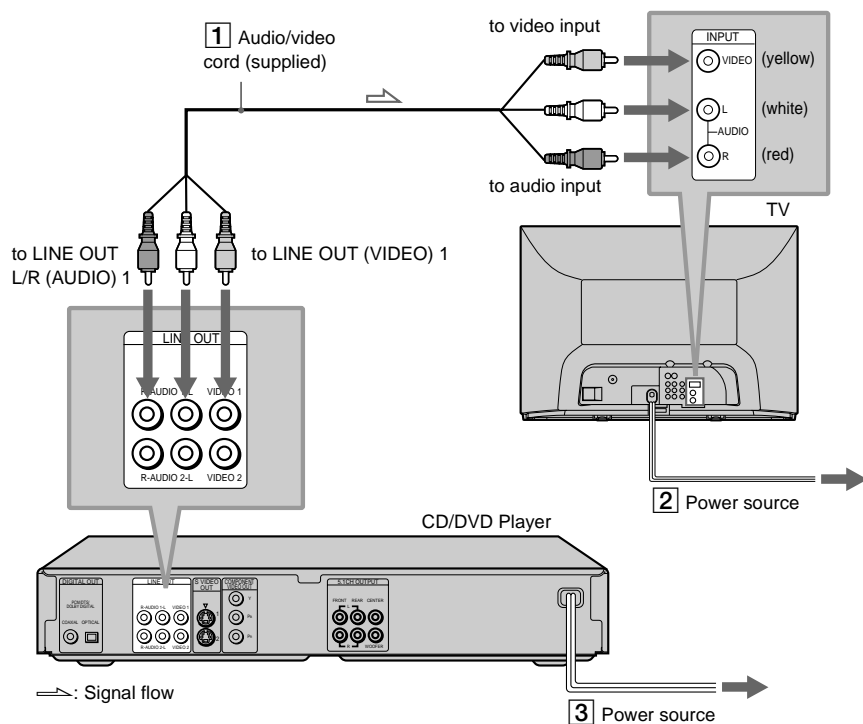
When connecting to a wide screen TV

Depending on the disc, the image may not fit your TV screen.
If you want to change the aspect ratio, please refer to page 67.

Step 4: Playing a Disc

1 **Turn on the TV.**

2 **Switch the input selector on the TV to the player.**

With the playback side facing down
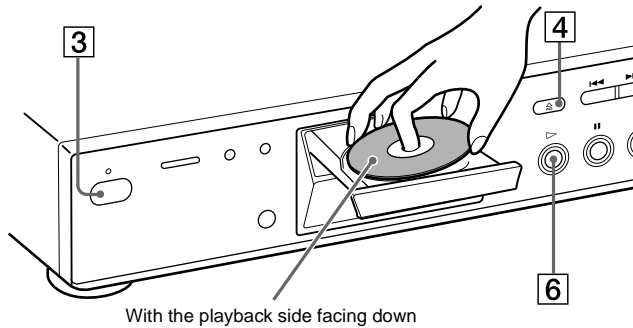
3 **Press POWER on the player.**

4 **Press ⏏ on the player to open the disc tray.**

5 **Place the disc on the tray with the playback side facing down.**

6 **Press ▷.**
The disc tray closes and the player begins playing the disc.

After Step 6

Depending on the disc, a menu may be displayed on the TV screen. If so, select the item you want from the menu and play the DVD (page 33) or VIDEO CD disc (page 34).

To stop playing

Press ■.

To take out the disc

Press ⏏.

To turn off the player

Press I/(1) on the remote. The player is set to standby mode and the power indicator lights up in red. Press POWER on the player to turn off completely.

16

Hooking Up the Player

Follow Steps 1 to 4 to hook up and adjust the settings of the player.
Before you start, turn off the power, check that you have all of the supplied accessories, and insert
the batteries into the remote (page 14).

Hookups

Notes

• Plug cords securely to prevent unwanted noise.
• Refer to the instructions supplied with the components to be connected.

Step 1: Connecting the Video Cords

Connect this player to your TV monitor, projector or, AV amplifier (receiver) using a video cord.
Select one of the patterns **A** through **C**, according to the input jack on your TV monitor,
projector, or AV amplifier (receiver).

⟹ : Signal flow

17
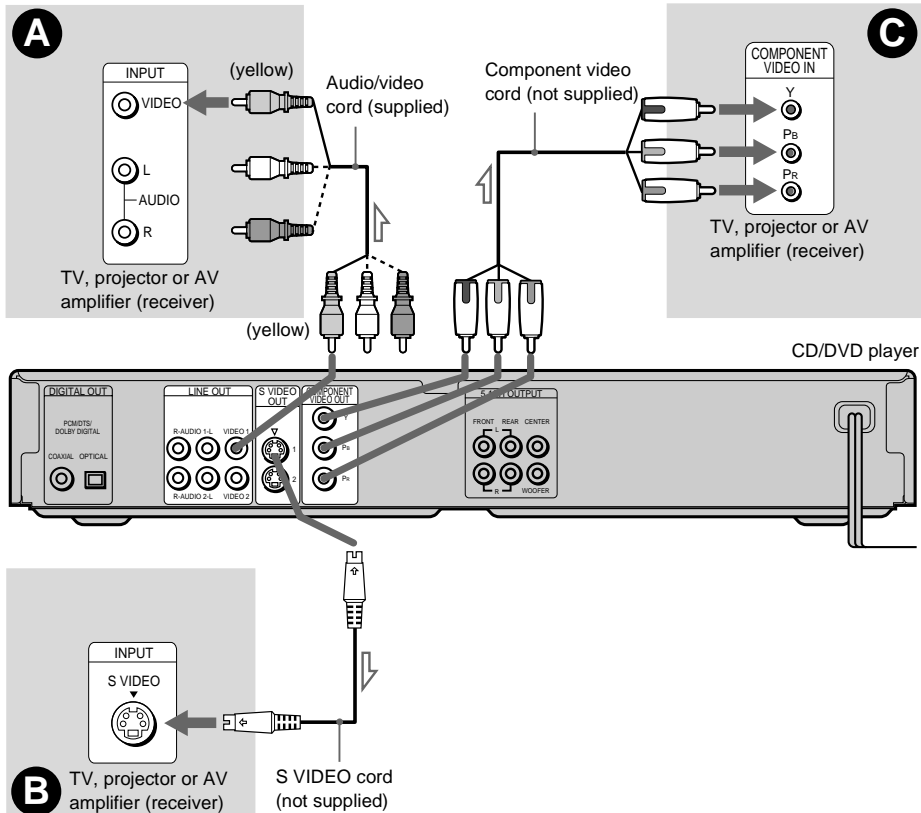
A If you are connecting to a video input jack

Connect the yellow plug of the audio/video cord (supplied) to the yellow (video) jacks. You will enjoy standard quality images.

Yellow (Video)   Yellow (Video)
White (L)   White (L)
Red (R)   Red (R)
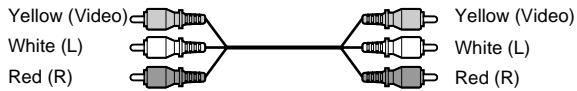
Use the red and white plugs to connect to the audio input jacks (page 20).

B If you are connecting to an S VIDEO input jack

Connect the S VIDEO cord (not supplied). You will enjoy standard quality images.

C If you are connecting to a monitor, projector or, AV amplifier (receiver) having component video input jacks (Y, P_B, P_R)

Connect the component via the COMPONENT VIDEO OUT jacks using a component video cord (not supplied) or three video cords (not supplied) of the same kind and length. You will enjoy accurate color reproduction and high quality images.
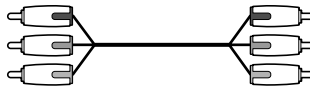
Note

Do not connect the player to a VCR so that the signals of the player are passed to the TV via the VCR. If you do so, you may not receive a clear image on the TV screen.

VCR

CD/DVD player   TV

Connect directly

18
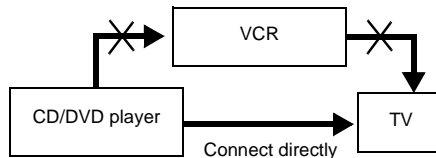
Step 2: Connecting the Audio Cords

Refer to the chart below to select the connection that best suits your system. The surround effects you will enjoy depend on the connections and components you use.

Select a connection

Connection	Components to be connected
A (page 20)	• TV (stereo)

B (page 21)	• AV amplifier (receiver) having 5.1ch input jacks
	• 4 speakers
	  (front L and R, rear L and R)
	• 6 speakers
	  (front L and R, center, rear L and R, subwoofer)

B (page 21)	• AV amplifier (receiver) having a Dolby* Digital or DTS** decoder and a digital input jack • 6 speakers (front L and R, center, rear L and R, subwoofer)

C (page 23)	• Stereo amplifier (receiver)
	  (having L and R audio input jacks only, or having a digital input jack)
	• 2 speakers
	  (front L and R)

C (page 23)	• MD deck/DAT deck

D (page 24)	• AV amplifier (receiver) with a Dolby Surround (Pro Logic) decoder
	  (having L and R audio input jacks only, or having a digital input jack)
	• 3 speakers
	  (front L and R, and rear (monaural))
	• 6 speakers
	  (front L and R, center, rear L and R, subwoofer)

* Manufactured under license from Dolby Laboratories. "Dolby," "Pro Logic," and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. © 1992-1997 Dolby Laboratories. All rights reserved.

** "DTS" is a registered trademark of Digital Theater Systems, Inc.

Hookups

This connection will use your TV speakers for sound.

■Recommended surround sound effects for this connection.

•TVS DYNAMIC (page 50)
•TVS WIDE (page 50)

CD/DVD player
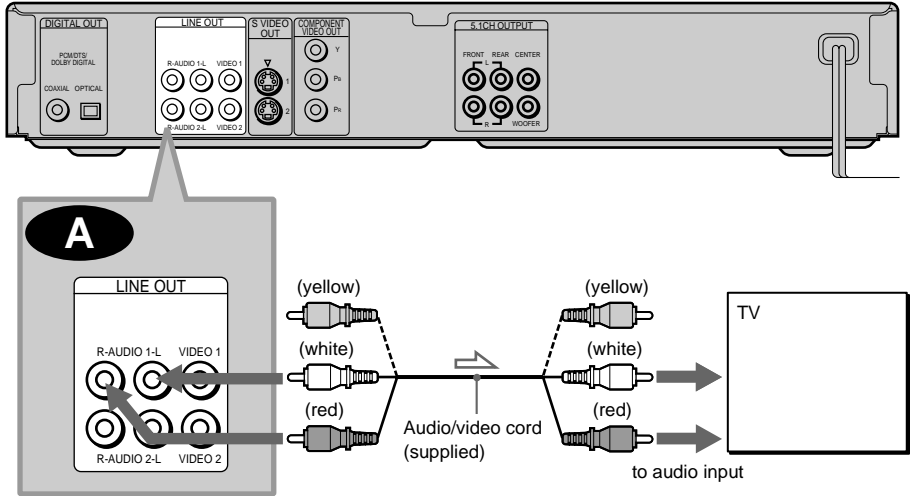
⟹ : Signal flow

The yellow plug is used for video signals (page 17).

20

B **Connecting to an AV amplifier (having 5.1ch input jacks or a digital input jack) and 4 to 6 speakers**

If your AV amplifier (receiver) has 5.1 channel inputs, use **B-1** .
If you want to use the Dolby Digital or DTS decorder function on your AV amplifier (receiver), connect to its digital jack using **B-2** . With the following connections, you can enjoy a more realistic audio presence in the comfort of your own home.

B-1 **: Connecting to the 5.1ch input jacks**

You can enjoy 5.1ch surround sound using the internal Dolby Digital decoder of this player. You can also enjoy Dolby Surround (Pro Logic) sounds, or surround sounds using various SURROUND modes (page 50).

■Recommended surround sound effects for this connection.

When 6 speakers are connected.
•Dolby Digital (5.1ch) (page 79)
(Set "SURROUND" to "OFF.")

B-2 **: Connecting to the digital input jack**

This connection will allow you to use the Dolby Digital or DTS decoder function of your AV amplifier (receiver). You are not able to enjoy the SURROUND sound effects of the player.

■Recommended surround sound effects using this connection with your amplifier (receiver).

•Dolby Digital (5.1ch) (page 79)
•DTS (5.1ch) (page 79)

Note

After you have completed the connection, be sure to set "DOLBY DIGITAL" to "DOLBY DIGITAL" (page 27). If your AV amplifier (receiver) has a DTS decoder, set "DTS" to "ON" (page 27). Otherwise, no sound or a loud noise will come from the speakers.

CD/DVD player

DIGITAL OUT | PCM/DTS/DOLBY DIGITAL | COAXIAL OPTICAL | LINE OUT | R-AUDIO 1-L VIDEO 1 | R-AUDIO 2-L VIDEO 2 | S VIDEO OUT | 1 2 | COMPONENT VIDEO OUT | Y PB PR | 5.1CH OUTPUT | FRONT REAR CENTER | L | R WOOFER

B-2

DIGITAL OUT

PCM/DTS/
DOLBY DIGITAL

COAXIAL OPTICAL

B-1

5.1CH OUTPUT

FRONT REAR CENTER

L

WOOFER

Optical digital cord
(not supplied)
Remove jack cap
before connecting

Stereo audio cord
(not supplied)

or   or

Coaxial digital cord
(not supplied)

Monaural audio cord
(not supplied)

to coaxial or optical digital input   to audio input

[Speakers]   [Speakers]

AV amplifier (receiver) having
5.1ch inputs or/and a decoder

| Center | Subwoofer |

| Front (L) | Front (R) |

| Rear (L) | Rear (R) |

⟹ : Signal flow

💡 To enhance the surround sound effects:
- Use high-performance speakers.
- Use front, rear, and center speakers having the same size and performance.
- Place a subwoofer between the right and left front speakers.
- Refer to the operating instructions of the AV receiver (amplifier) for correct speaker setting location.

22

C **Connecting to a stereo amplifier (receiver) and 2 speakers/Connecting to an MD deck or DAT deck**

This connection will use your 2 front speakers connected to your stereo amplifier (receiver) for sound. If the stereo amplifier (receiver) has audio input jacks L and R only, use **C-1**. If the amplifier (receiver) has a digital input jack, use **C-2**. When connecting to an MD deck or a DAT deck, use **C-2**. In this case, you can also connect the player directly to the MD deck or DAT deck with using your stereo amplifier (receiver).

■Recommended surround sound effects for the **C-1** connection only.

•TVS STANDARD (page 50)

ϔ In connection **C-1**, you can use the supplied audio/video cord instead of using a separate audio cord.

ϔ To realize better surround sound effects, make sure that your listening position is in between your speakers.

CD/DVD player
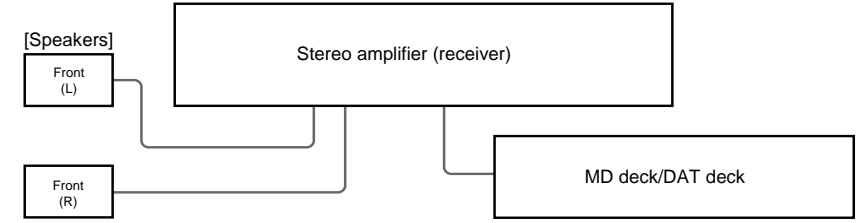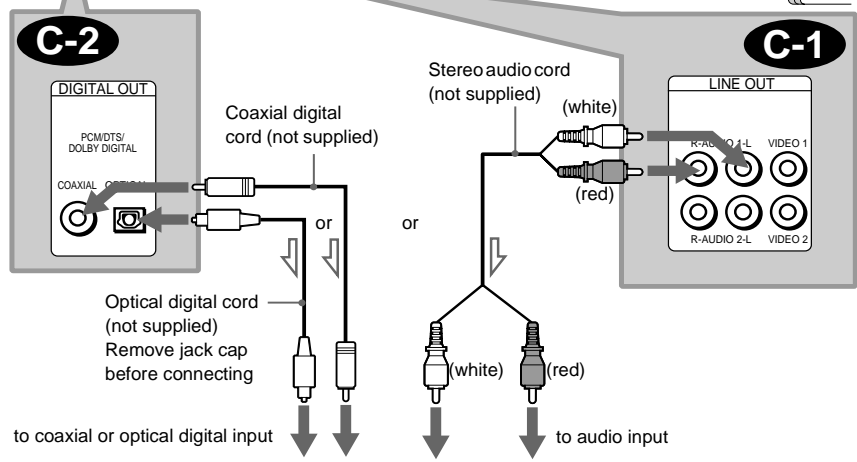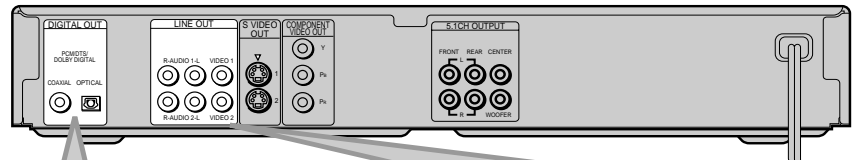
⇒: Signal flow

23

This connection will allow you to enjoy the surround effects of the Pro Logic decoder on your amplifier (receiver). If you have an AV amplifier (receiver) equipped with a Dolby Digital or DTS decoder, refer to page 21.

You can enjoy the Dolby Surround effects only when playing Dolby Surround audio or multi-channel audio (Dolby Digital) discs.

Pro Logic uses a minimum of 3 speakers (front L and R, and rear (monaural)). The surround effects are enhanced if 6 speakers (front L and R, center, rear L and R, and subwoofer) are used. If your amplifier (receiver) has L and R audio input jacks only, use **D-1**. If your amplifier (receiver) has a digital input jack, use **D-2**.

■ Recommended surround sound effects using this connection with your amplifier (receiver).
  • Dolby Surround (Pro Logic) (page 79)

‍ For correct speaker setting location, please refer to the operating instructions of the amplifier (receiver).

CD/DVD player

to coaxial or optical digital input   to audio input

[Speakers]   [Speakers]

Dolby Surround amplifier (receiver)

| Rear (L) | Rear (R) | | | Front (L) | Front (R) |

| Subwoofer | Center | Rear* (mono) |

⇒: Signal flow
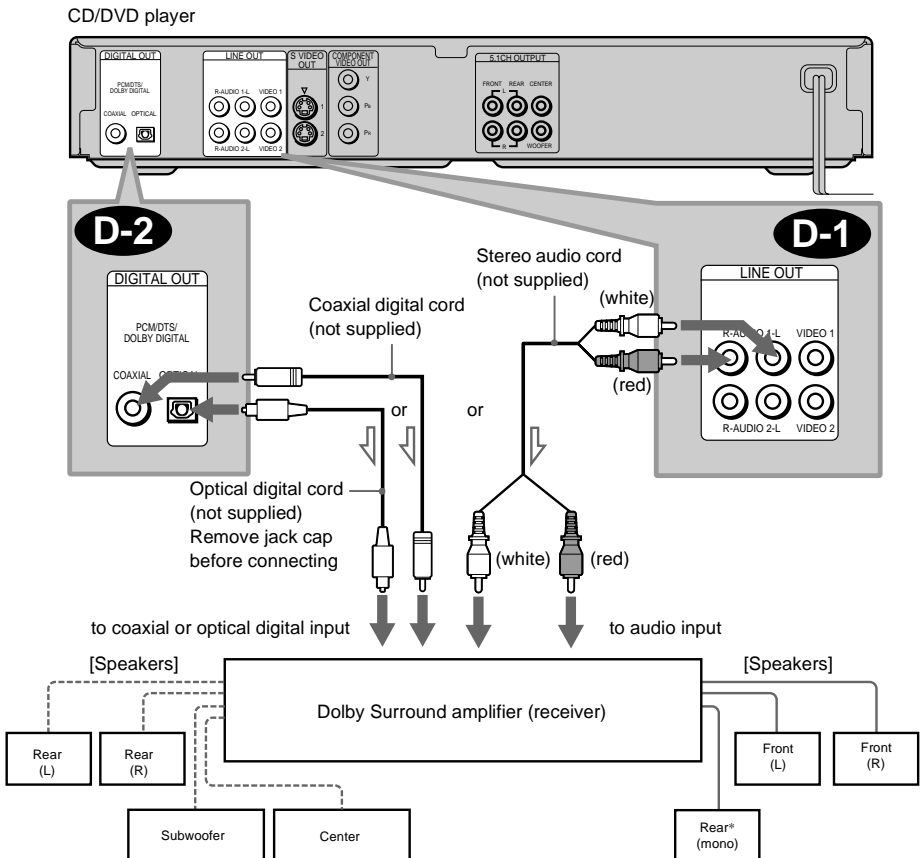
*When connecting 6 speakers, replace the monaural rear speaker with a center speaker, 2 rear speakers and a subwoofer.

24

Step 3: Connecting the Power Cord

Plug the player and TV power cords into an AC outlet.

Do not connect the power cord of your player to the "switched" power socket of an amplifier (receiver). When you turn off the power of your amplifier (receiver) the menu setting for the player such as Playback Memory may be lost.

Step 4: Quick Setup

Follow the steps below to make the minimum number of base adjustments use the player. To skip an adjustment, press ▶▶I. To return to the previous adjustment, press I◀◀.
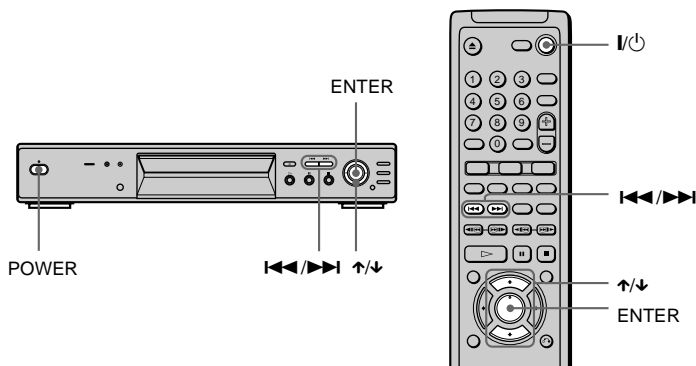
1   **Turn on the TV.**

2   **Switch the input selector on the TV to the player.**

3   **Press POWER on the player and press I/⏻ on the remote.**
"Press [ENTER] to run QUICK SETUP" appears at the bottom of the screen. If this message does not appear, select "QUICK" under "SETUP" in the Control Menu to run Quick Setup (page 65).

4   **Press ENTER without inserting a disc.**
The Setup Display for selecting the language used in the on-screen display appears.

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

25
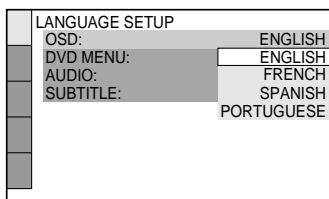
5 **Press ↑/↓ to select a language.**

The player uses the language selected here to display the DVD menu and subtitle as well.

6 **Press ENTER.**

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

```
SCREEN SETUP
TV TYPE:              4:3 LETTER BOX
SCREEN SAVER:         4:3 LETTER BOX
BACKGROUND:           4:3 PAN SCAN
                              16:9
```
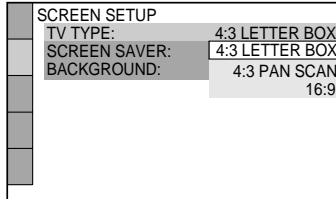
7 **Press ↑/↓ to select the item.**

TV Type	You select	Page
4:3 standard TV	4:3 LETTER BOX or 4:3 PAN SCAN	67
A wide-screen TV or 4:3 standard TV with a wide-screen mode	16:9	67

8 **Press ENTER.**

The Setup Display for selecting the type of jack used to connect your amplifier (receiver) appears.

```
Is this player connected to an amplifier
(receiver)? Select the type of jack you
are using.

  YES
     LINE OUTPUT L/R(AUDIO)
     DIGITAL OUTPUT
     5.1CH OUTPUT
  NO
```
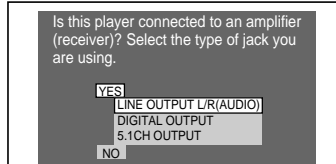
9 **Press ↑/↓ to select the item, then press ENTER.**

- When "NO" or "LINE OUTPUT L/R (AUDIO)" is selected, Quick Setup is finished and connections are complete.
- When "DIGITAL OUTPUT" is selected, the Setup Display for "DOLBY DIGITAL" appears.
- When "5.1CH OUTPUT" is selected, the Setup Display for "SPEAKER SETUP" appears.

26

When DIGITAL OUTPUT is selected

1 Press ↑/↓ to select the item.

Choose the item that matches the audio connection you selected in page 21 to 24 (**B**
through **D**).

```
AUDIO SETUP
 AUDIO ATT:                  OFF
 AUDIO DRC:             STANDARD
 CENTER SPEAKER EQ:         FLAT
 DOWNMIX:        DOLBY SURROUND
 DIGITAL OUT:                 ON
  DOLBY DIGITAL:           D-PCM
  DTS:                     D-PCM
  48kHz/96kHz PCM:  DOLBY DIGITAL
```

Audio Cord Connection Type	You select	Page
C-2 **D-2**	D-PCM	71
B-2	DOLBY DIGITAL (only if the amplifier (receiver) has a Dolby Digital decoder)	71

2 Press ENTER.

DTS is selected.

```
AUDIO SETUP
 AUDIO ATT:                  OFF
 AUDIO DRC:             STANDARD
 CENTER SPEAKER EQ:         FLAT
 DOWNMIX:        DOLBY SURROUND
 DIGITAL OUT:                 ON
  DOLBY DIGITAL:           D-PCM
  DTS:                       OFF
  48kHz/96kHz PCM:           OFF
                              ON
```

3 Press ↑/↓ to select the item.

Choose the item that matches the audio connection you selected in page 21 to 24 (**B**
through **D**).

Audio Cord Connection Type	You select	Page
C-2 **D-2**	OFF	71
B-2	ON (only if the amplifier (receiver) has a DTS decoder)	71

4 Press ENTER.

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

1 Press ↑/↓ to select the size of the center speaker.

If no center speaker is connected, select "NONE." Refer to page 72 for each selection item.

```
SPEAKER SETUP
SIZE:
DISTANCE:
BALANCE:
LEVEL:
TEST TONE:      OFF
   FRONT:              LARGE
   CENTER:             NONE
   REAR:               NONE
   SUBWOOFER:          LARGE
                       SMALL
```
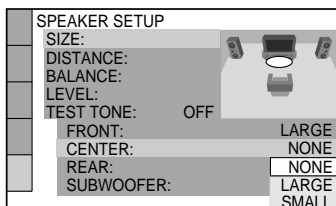
2 Press ENTER.

The Setup Display for selecting the size of the rear speaker appears.

```
SPEAKER SETUP
SIZE:
DISTANCE:
BALANCE:
LEVEL:
TEST TONE:      OFF
   FRONT:              LARGE
   CENTER:             LARGE
   REAR:               NONE
   SUBWOOFER:          NONE
                 LARGE(REAR)
```
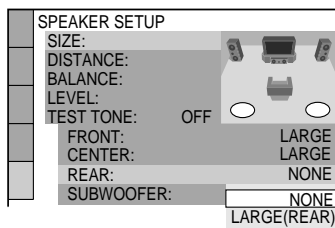
3 Press ↑/↓ to select the size.

If no rear speaker is connected, select "NONE."

"SIDE" and "REAR" refer to the speakers' position relative to your listening position.

Refer to page 72 for each selection item.

4 Press ENTER.

The Setup Display for selecting whether or not you have connected a subwoofer appears.

```
SPEAKER SETUP
SIZE:
DISTANCE:
BALANCE:
LEVEL:
TEST TONE:      OFF
   FRONT:              LARGE
   CENTER:             LARGE
   REAR:         LARGE(REAR)
   SUBWOOFER:          NONE
                       NONE
                       YES
```
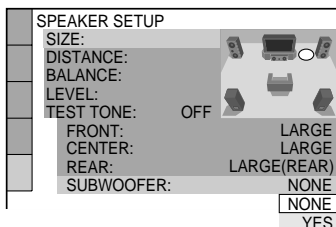
5 Press ↑/↓ to select the item.

6 Press ENTER.

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

28

Note

You can directly start Quick Setup only when you run it for the first time.
To run Quick Setup a second time, select "QUICK" under "SETUP" in the Control Menu (page 65).

Enjoying the surround sound effects

To enjoy the surround sound effects of this player or your amplifier (receiver), the following items must be set as described below for the audio connection you selected in page 21 to 24 (**B** through **D**). Each of these are the default settings and do not need to be adjusted when you first connect the player. Refer to page 65 for using the Setup Display.

Audio Connection (page 21 to 24)

A
No additional settings are needed.

B-1

Item	You select	Page
DISTANCE BALANCE LEVEL	Set according to the connected speakers	72

• If the sound distorts even when the volume is turned down, set "AUDIO ATT" to "ON" (page 70).
• If "ENHANCED" or "SOFT" is selected in "CENTER SPEAKER EQ," it makes the spoken track sound clear (page 70).

B-2 **C-2** **D-2**

Item	You select	Page
DOWNMIX	DOLBY SURROUND	70
DIGITAL OUT	ON	70

• Set "48kHz/96kHz PCM" to "96kHz/24bit," only if you connect the amplifier (receiver) that conforms to the 96 kHz sampling frequency (page 71).

C-1 **D-1**

Item	You select	Page
DOWNMIX	DOLBY SURROUND	70

• If the sound distorts even when the volume is turned down, set "AUDIO ATT" to "ON" (page 70).

29

Playing Discs
DVD VIDEO CD CD

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

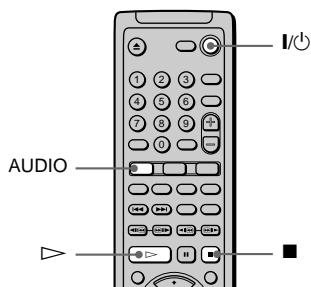Refer to the operating instructions supplied with your disc.

POWER

Power indicator

▷ ⏏ ■

I/(1)

AUDIO

▷ ■
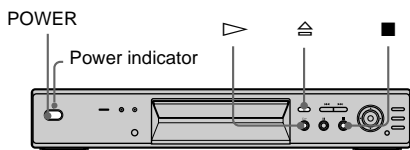
1 Turn on your TV.

2 Switch the input selector on the TV to the player.

When using an amplifier (receiver)

Turn on the amplifier (receiver) and select the appropriate channel.

3 Press POWER on the player.

The player enters standby mode and the power indicator lights up in red.

4 Press ⏏ on the player, and place a disc on the disc tray.

The player automatically turns on and the power indicator lights up in green.
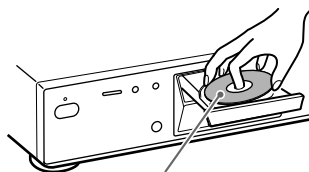
With the playback side facing down

5 Press ▷.

The disc tray closes, and the player starts playback (continuous play). Adjust the volume on the TV or the amplifier (receiver).

After following Step 5

Depending on the disc, a menu may appear on the TV screen. You can play the disc interactively by following the instructions on the menu. DVD (page 33), VIDEO CD (page 34).

To turn on the player

Press POWER on the player. The player enters standby mode and the power indicator lights up in red. Press I/(1) on the remote. The player turns on and the power indicator lights up in green. In standby mode, the player also turns on by pressing ⏏ on the player or by pressing ▷.

To turn off the player

Press I/(1) on the remote. The player enters standby mode and the power indicator lights up in red. To turn off the player completely, press POWER on the player. While playing a disc, do not turn off the player by pressing POWER. Doing so may cancel the menu settings. When you turn off the player, first press ■ to stop playback and then press I/(1) on the remote.

30

Notes on playing DTS sound tracks on a CD

- When playing DTS-encoded CDs, excessive noise will be heard from the analog stereo jacks. To avoid possible damage to the audio system, the consumer should take proper precautions when the analog stereo jacks of the player are connected to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1-channel decoder system must be connected to the digital jacks of the player.
- Set the sound to "STEREO" using the AUDIO button when you play DTS sound tracks on a CD (page 48).
- Do not play DTS sound tracks without first connecting the player to an audio component having a built-in DTS decoder. The player outputs the DTS signal via the DIGITAL OUT (OPTICAL and COAXIAL) jacks even if "DTS" in "AUDIO SETUP" is set to "OFF" in the Setup Display (page 71), and may affect your ears or cause your speakers to be damaged.

Notes on playing DVDs with a DTS sound track

- DTS audio signals are output only through the DIGITAL OUT (OPTICAL and COAXIAL) jack.
- If you connect the player to audio equipment without a DTS decoder, do not set "DTS" to "ON" in "AUDIO SETUP" (page 71). A loud noise may come out from the speakers, affecting your ears or causing the speakers to be damaged.
- When you play a DVD with DTS sound tracks, set "DTS" to "ON" in "AUDIO SETUP" (page 71).

Additional operations

INSTANT REPLAY
|◄◄/►►|
►
II
■
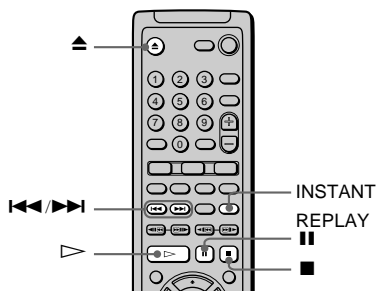
To	Operation
Stop	Press ■
Pause	Press II
Resume play after pause	Press II or ►
Go to the next chapter, track or scene in continuous play mode	Press ►►|
Go back to the preceding chapter, track or scene in continuous play mode	Press |◄◄
Stop play and remove the disc	Press ▲
Replay the last viewed scene (DVD only)	Press INSTANT REPLAY

ϙ̆ The Instant Replay function is useful when you want to review a scene or dialog that you missed.

Note

You may not be able to use the Instant Replay function with some scenes.

Playing Discs

31

Resuming Playback from the Point Where You Stopped the Disc (Resume Play)

DVD VIDEO CD CD

When you stop the disc, the player remembers the point where you pressed ■ and "RESUME" appears on the front panel display. As long as you do not open the disc tray, Resume Play works even if the player enters standby mode by pressing I/⏻.

▷ ———————— ■

1 **While playing a disc, press ■ to stop playback.**
"RESUME" appears on the front panel display and you can restart the disc from the point where you stopped the disc.
If "RESUME" does not appear, Resume Play is not available.

2 **Press ▷.**
The player starts playback from the point where you stopped the disc in Step 1.
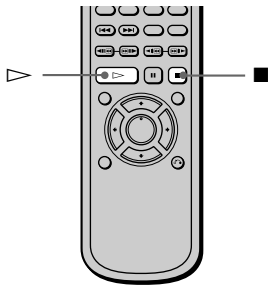
ʘ̈ To play from the beginning of the disc, press ■ twice, then press ▷.

- Depending on where you stopped the disc, the player may not resume playback from exactly the same point.
- The point where you stopped playing is cleared when:
  —you turn the power off by pressing POWER on the player.
  —you change the play mode.
  —you change the settings on the Setup Display.

Using the DVD's Menu DVD

Some discs have a "title menu" or a "DVD menu". On some DVDs, this may simply be called a "menu" or "title."

Using the title menu

A DVD is divided into long sections of a picture or a music feature called "titles." When you play a DVD which contains several titles, you can select the title you want using the title menu.

Number buttons — [remote illustration]
TITLE — ←/↑/↓/→
ENTER
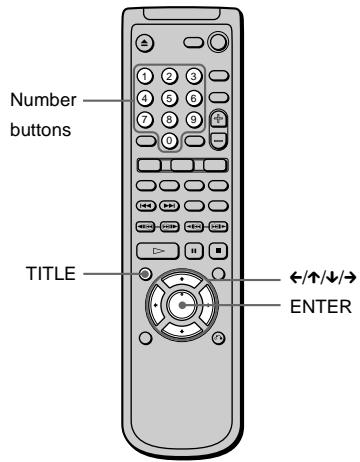
1 Press TITLE.
The title menu appears on the TV screen. The contents of the menu vary from disc to disc.

2 Press ←/↑/↓/→ or the number buttons to select the title you want to play.

3 Press ENTER.
The player starts playing the selected title.

ʻỌʻ You can also display the title menu by pressing TITLE on the player.

Using the DVD menu

Some DVDs allow you to select the disc contents using a menu. When you play these DVDs, you can select items such as the language for the subtitles and the language for the sound using the DVD menu.

Number buttons — [remote illustration]
DVD MENU
←/↑/↓/→
ENTER
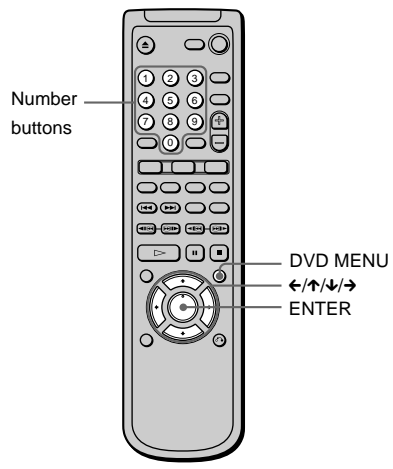
1 Press DVD MENU.
The DVD menu appears on the TV screen. The contents of the menu vary from disc to disc.

2 Press ←/↑/↓/→ or the number buttons to select the item you want to change.

3 To change other items, repeat Step 2.

4 Press ENTER.

ʻỌʻ You can also display the DVD menu by pressing DVD MENU on the player.

Playing VIDEO CDs with PBC Functions (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.

Number buttons

|◀◀ /▶▶|

▷

■

↑/↓
ENTER
RETURN

1 Start playing a VIDEO CD with PBC functions.

The menu for your selection appears.

2 Select the item number you want by pressing ↑/↓ or the number buttons.

3 Press ENTER.

4 Follow the instructions in the menu for interactive operations.

Refer to the instructions supplied with the disc, as the operating procedure may differ according to the VIDEO CD.

To go back to the menu

Press ∂ RETURN.

ᵍ To play without using PBC, press |◀◀ /▶▶| or the number buttons while the player is stopped to select a track, then press ▷ or ENTER.
"Play without PBC" appears on the TV screen and the player starts continuous play. You cannot play still pictures such as a menu. To return to PBC playback, press ■ twice then press ▷.

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 ▷.

Various Play Mode Functions (Program Play, Shuffle Play, Repeat Play, A-B Repeat Play)

DVD **VIDEO CD** **CD**

You can set the following play modes:
- Program Play (page 35)
- Shuffle Play (page 37)
- Repeat Play (page 37)
- A- B Repeat Play (page 38)

Notes

- The play mode is cancelled when:
  — you open the disc tray.
  — the player enters standby mode by pressing $\mathbf{I/}\math{\circlearrowleft}$ on the remote.
  — you turn the power off by pressing POWER on the player.
- If you are playing a VIDEO CD with PBC, you must first cancel PBC playback before you can set a play mode (except when you want to set A-B repeat for moving pictures).

Creating your own program (Program Play)

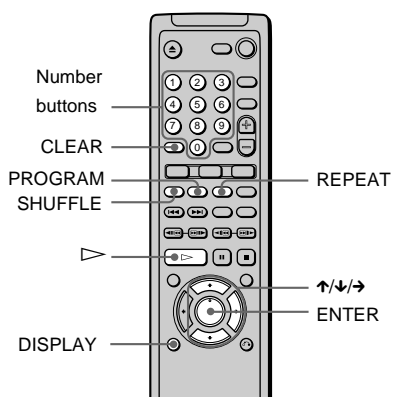You can play the contents of a disc in the order you want by arranging the order of the titles, chapters or tracks on the disc to create your own program. You can program up to 99 titles, chapters, and tracks.

Number buttons

CLEAR

PROGRAM

SHUFFLE

$\triangleright$

DISPLAY

REPEAT

$\uparrow/\downarrow/\rightarrow$

ENTER

1 Press DISPLAY twice (When playing a CD, press once).
The Control Menu appears.

2 Press $\uparrow/\downarrow$ to select (PROGRAM), then press ENTER.
The options for PROGRAM appear.

```
12(27)          PLAY ▶
18(34)          DVD
T   1:32:55
OFF
OFF
SET →
ON
```
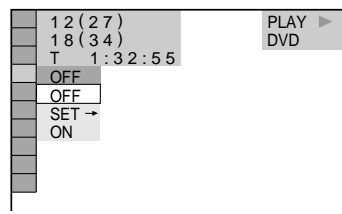
3 Press $\uparrow/\downarrow$ to select "SET →", then press ENTER.
The display for programming appears.

"TRACK" is displayed when you play a VIDEO CD or a CD.

```
PROGRAM                      T
ALL CLEAR
1. TITLE                    – –
2. TITLE – –                 01
3. TITLE – –                 02
4. TITLE – –                 03
5. TITLE – –                 04
6. TITLE – –                 05
7. TITLE – –
```

Titles or Tracks recorded on a disc
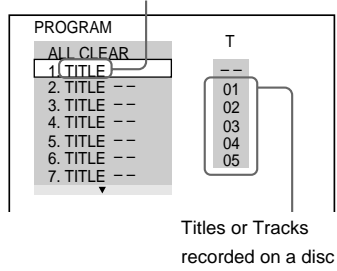
4 Press $\rightarrow$.
The cursor moves to the title or track (in this case, "01").

```
PROGRAM              T      C
ALL CLEAR
1. TITLE – –        – –    ALL
2. TITLE – –         01     01
3. TITLE – –         02     02
4. TITLE – –         03     03
5. TITLE – –         04     04
6. TITLE – –         05     05
7. TITLE – –                06
```

Chapters recorded on a disc

Playing Discs

35
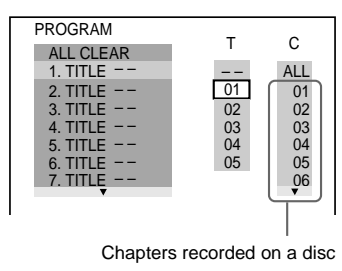
5 Select the title, chapter, or track you want to program.

■ When playing a DVD
For example, select chapter "03" of title "02".
Press ↑/↓ or the number buttons to select "02" under "T," then press ENTER.

```
PROGRAM
                           T      C
ALL CLEAR
1. TITLE --              --     ALL
2. TITLE --              01     01
3. TITLE --              02     02
4. TITLE --              03     03
5. TITLE --              04     04
6. TITLE --              05     05
7. TITLE --              ▼      06 ▼
```

Next, press ↑/↓ or the number buttons to select "03" under "C," then press ENTER.

Selected title and chapter

```
PROGRAM
                              T
ALL CLEAR
1. TITLE (02-03)          --
2. TITLE                  01
3. TITLE --               02
4. TITLE --               03
5. TITLE --               04
6. TITLE --               05
7. TITLE ▼
```

■ When playing a VIDEO CD or CD
For example, select track "02".
Press ↑/↓ or the number buttons to select "02" under "T," then press ENTER.

Selected track

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

Total time of the programmed tracks

6 To program other titles, chapters, or tracks, repeat Steps 4 to 5.
The programmed titles, chapters, and tracks are displayed in the selected order.

7 Press ▷ to start Program Play.
Program Play begins.
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.

To change the program

1 In Step 4, select the program number of the title, chapter, or track you want to change using ↑/↓ or the number buttons, and press →.

2 Follow Step 5 for new programming.

To cancel the programmed order
To cancel all the titles, chapters, or tracks in the programmed order, press ↑, and select "ALL CLEAR" in Step 4. To cancel the selected program, select the program using ↑/↓ in Step 4, then press CLEAR, or select "--" in Step 5, then press ENTER.

ϔ You can do Repeat Play or Shuffle Play of the programmed titles, chapters, or tracks. Press REPEAT or SHUFFLE, set "REPEAT" or "SHUFFLE" to on in the Control Menu display during Program Play.

ϔ You can select PROGRAM directly by pressing PROGRAM.

Note
The number of titles, chapters, or tracks displayed are the same number of titles, chapters, or tracks recorded on a disc.

Playing in random order (Shuffle Play)

You can have the player "shuffle" titles, chapters, or tracks and play them in a random order. Subsequent "shuffling" may produce a different playing order.
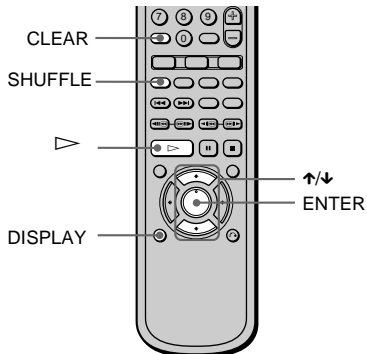
CLEAR

SHUFFLE

▷

DISPLAY

↑/↓
ENTER

1 Press DISPLAY twice during playback (When playing a CD, press once).
The Control Menu appears.

2 Press ↑/↓ to select 🔲 🙂🙂 (SHUFFLE), then press ENTER.
The options for SHUFFLE appear.

```
1 2 ( 2 7 )        PLAY ▶
1 8 ( 3 4 )        DVD
T   1 : 3 2 : 5 5

OFF
OFF
TITLE
CHAPTER
```
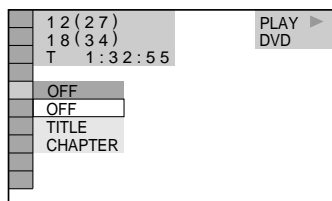
3 Press ↑/↓ to select the item.

■**When playing a DVD (and when Program Play is set to OFF)**
- TITLE: shuffle titles and plays them in a random order.
- CHAPTER: shuffle chapters and plays them in a random order.

■**When playing a VIDEO CD or CD (Program Play is set to OFF)**
- TRACK: shuffle tracks and plays them in a random order.

■**When playing a VIDEO CD, CD or DVD (Program Play is set to ON)**
- ON: shuffle titles or tracks selected in Program Play and plays them in a random order.

4 Press ENTER.

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.

ϔ You can set Shuffle Play while the player is stopped. After selecting the SHUFFLE option, press ▷. Shuffle Play starts.

ϔ You can select SHUFFLE directly by pressing SHUFFLE.

Note

Up to 200 chapters in a disc can be played in random order when "CHAPTER" is selected.

Playing repeatedly (Repeat Play)

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

CLEAR

REPEAT

▷

↑/↓
ENTER

DISPLAY

37

1 Press DISPLAY twice during playback (when playing a CD, press once).
The Control Menu appears.

2 Select [🔁] REPEAT using ↑/↓, then press ENTER.
The options for REPEAT appear.

```
┌─────────────┐
│ 1 2 ( 2 7 )        PLAY ▶
│ 1 8 ( 3 4 )        DVD
│ T   1 : 3 2 : 5 5
│
│
│  OFF
│  OFF
│  DISC
│  TITLE
│  CHAPTER
└─────────────┘
```

3 Press ↑/↓ to select the item.

■ **When playing a DVD (Program Play and Shuffle Play are set to OFF)**
  • DISC: repeats all of the titles.
  • TITLE: repeats the current title on a disc.
  • CHAPTER: repeats the current chapter.

■ **When playing a VIDEO CD or CD (Program Play and Shuffle Play are set to OFF)**
  • DISC: repeats all of the tracks on a disc.
  • TRACK: repeats the current track.

■ **When Program Play or Shuffle Play is on**
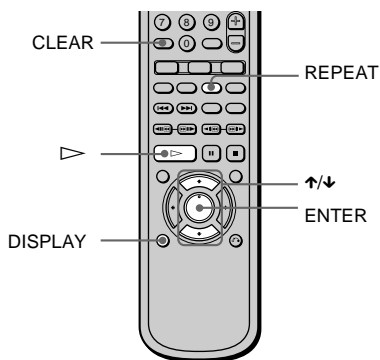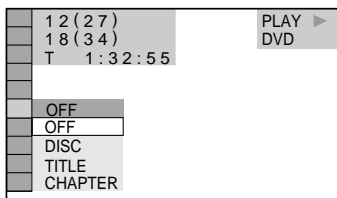 • ON: repeats Program Play or Shuffle Play.

4 Press ENTER.

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.

🔆 You can set Repeat Play while the player stopped. After selecting the "REPEAT" option, press ▷. Repeat Play starts.

🔆 You can select REPEAT directly by pressing REPEAT.

Repeating a specific portion (A-B Repeat Play)

You can play a specific portion of a title, chapter or track repeatedly. (This function is useful when you want to memorize lyrics, etc.)
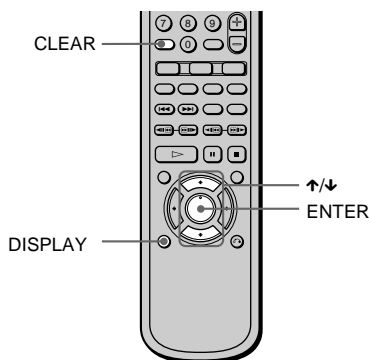
CLEAR
DISPLAY
↑/↓
ENTER

1 Press DISPLAY twice during playback (when playing CD, press once).
The Control Menu appears.

2 Press ↑/↓ to select [A-B] (A-B REPEAT), then press ENTER.
The options for A-B REPEAT appear.

```
┌─────────────┐
│ 1 2 ( 2 7 )        PLAY ▶
│ 1 8 ( 3 4 )        DVD
│ T   1 : 3 2 : 5 5
│
│
│
│  OFF
│  SET →
│  OFF
└─────────────┘
```

38
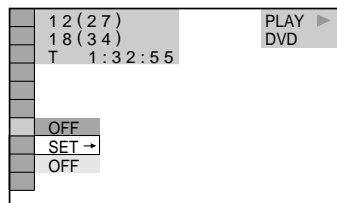
3 Press ↑/↓ to select "SET →", then press ENTER.

The A-B REPEAT setting display appears.

```
A-B REPEAT

  Set point A with ENTER .
```
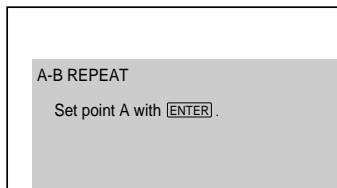
4 During playback, when you find the starting point (point A) of the portion to be played repeatedly, press ENTER.

The starting point (point A) is set.

```
A-B REPEAT

  Set point B with ENTER .


                    CHAPTER   TIME
                 A:  18  −  1 : 32 : 55
```
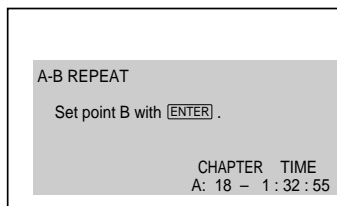
5 When you reach the ending point (point B), press ENTER again.

The set points are displayed and the player starts repeating this specific portion.

"A-B" appears on the front panel display during A-B Repeat Play.
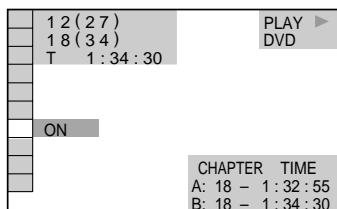
```
   1 2 ( 2 7 )                 PLAY  ▷
   1 8 ( 3 4 )                 DVD
   T     1 : 34 : 30



   ON

                    CHAPTER   TIME
                 A:  18  −  1 : 32 : 55
                 B:  18  −  1 : 34 : 30
```

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.

Notes

- You can set A-B Repeat Play for only one specific section.
- When you set A-B Repeat Play, the settings for Shuffle Play, Repeat Play, and Program Play are cancelled.

Searching for a Particular Point on a Disc (Search, Scan, Slow-motion play, Freeze Frame)

DVD **VIDEO CD** **CD**

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

◀II◀◀/▷II▶   ◀I◀◀/▷I▶
▷
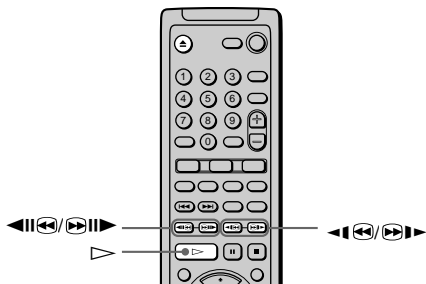
Note

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

Locating a point quickly (Search)

While a disc is playing, keep pressing ▷II▶ to locate a point in playback direction at the FF1▶▶* speed or keep pressing ◀II◀◀ to locate a point in opposite direction at the FR1◀◀* speed. When you find the point you want, release the button to return to normal playback speed.

* The FF1▶▶/FR1◀◀ playback speed is the same as the scan speed described below.

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

Press ◀I◀◀ or ▷I▶ while playing a disc. When you find the point you want, press ▷ to return to normal speed.
Each time you press ◀I◀◀ or ▷I▶ during scan the playback speed changes. Three

40

speeds are available. With each press the indication changes as follows:

Playback direction
x2▶ (DVD/CD only) → FF1▶▶ → FF2▶▶

Opposite direction
x2◀ (DVD only) → FR1◀◀ → FR2◀◀
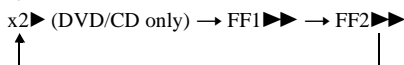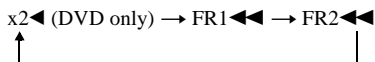
The x2▶/x2◀ playback speed is about twice the normal speed. The FF2▶▶/FR2◀◀ playback speed is faster than FF1▶▶/FR1◀◀.

Watching frame by frame (Slow-motion play) **DVD** **VIDEO CD**

You can use this function only for DVDs or VIDEO CDs. Press ◀I◀◀ or ▷I▶ when the player is in the pause mode. To return to the normal speed, press ▷.
Each time you press ◀I◀◀ or ▷I▶ during Slow-motion play the playback speed changes. Two speeds are available. With each press the indication changes as follows:

Playback direction
SLOW 2I▶ ←→ SLOW 1I▶
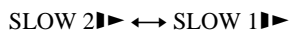
Opposite direction (DVD only)
SLOW 2◀I ←→ SLOW 1◀I
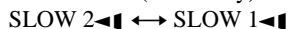
The SLOW2I▶/SLOW2◀I playback speed is slower than SLOW1I▶/SLOW1◀I.

Playing one frame at a time **DVD** **VIDEO CD**

You can use this function only for DVDs or VIDEO CDs. When the player is in the pause mode, press ▷II▶ to go to the next frame. Press ◀II◀◀ to go to the preceding frame (DVD only). To return to normal playback, press ▷.

Searching for a Title/ Chapter/Track/Index/ Scene DVD VIDEO CD

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

Number buttons

CLEAR

DISPLAY

↑/↓

ENTER
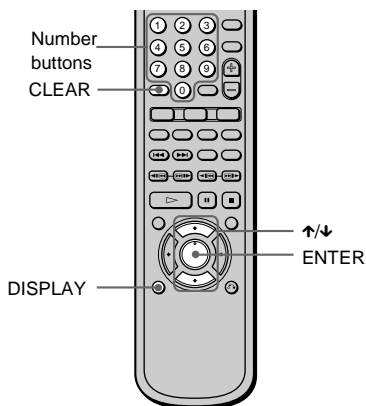
1 Press DISPLAY.
The Control Menu appears.

2 Press ↑/↓ to select the search method.

■ **When playing a DVD**
   (TITLE),   (CHAPTER), or   (TIME/ TEXT)
Select TIME/ TEXT for TIME SEARCH (See below).

■ **When playing a VIDEO CD**
   (TRACK) or   (INDEX)

■ **When playing a VIDEO CD with PBC Playback**
   (SCENE)

■ **When playing a CD**
   (TRACK) or   (INDEX)

Example: when you select   (CHAPTER)
"∗∗ (∗∗)" is selected (∗∗ refers to a number).
The number in parentheses indicates the total number of titles, chapters, tracks, indexes or scenes.

```
┌────────────────────────┐
│ 1 2 ( 2 7 )      PLAY ▶ │
│ 1 8 ( 3 4 )      DVD    │
│ T   1 : 3 2 : 5 5       │
│                         │
│           Selected row  │
│                         │
│                         │
│                         │
│                         │
└────────────────────────┘
```
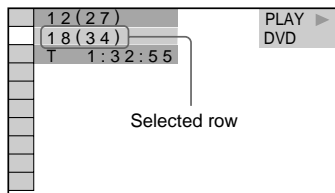
3 Press ENTER.
"∗∗ (∗∗)" changes to "-- (∗∗)".

```
┌────────────────────────┐
│ 1 2 ( 2 7 )      PLAY ▶ │
│ – – ( 3 4 )      DVD    │
│ T   1 : 3 2 : 5 5       │
│                         │
│                         │
│                         │
│                         │
│                         │
│                         │
└────────────────────────┘
```
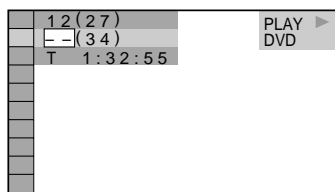
4 Press ↑/↓ or the number buttons to select the title, chapter, track, index, or scene number you want to search.

If you make a mistake
Cancel the number by pressing CLEAR, then select another number.

5 Press ENTER.
The player starts playback from the selected number.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

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

1 In Step 2, select ⟨⟨🕒⟩⟩ (TIME/
TEXT).
"T ✱✱:✱✱:✱✱" (playing time of the current
title) is selected.

2 Press ENTER.
"T ✱✱:✱✱:✱✱" changes to "T --:--:--."

3 Input the time code using the number
buttons, then press ENTER.
For example, to find the scene at 2 hours,
10 minutes, and 20 seconds after the
beginning, just enter "2:10:20."

💡 You can display the first scene of titles, chapters or
tracks recorded on the disc on a screen divided into 9
scenes. You can start playback directly by selecting
one of the scenes. For details, see page 42.

Note

The title, chapter or track number displayed is the
same number recorded on the disc.

Searching by Using the Scenes (VIEWER) DVD VIDEO CD

You can divide the screen into 9 sub-screens
and find the desired scene quickly.

DISPLAY

II
←/↑/↓/→
ENTER
RETURN
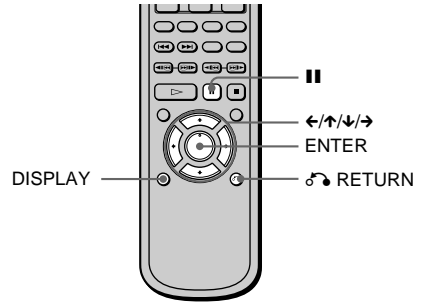
1 **Press DISPLAY twice during
playback.**
The Control Menu appears.

2 **Press ↑/↓ to select ⬛
(VIEWER), then press ENTER.**
The options for VIEWER appear.

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



STROBE PLAYBACK
TITLE VIEWER
CHAPTER VIEWER
ANGLE VIEWER
STROBE PLAYBACK
```
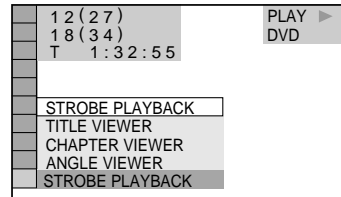
3 **Press ↑/↓ to select the item.**
Refer to the explanations given for each
items in the following sections.
• STROBE PLAYBACK
• TITLE VIEWER (for DVD only)
• CHAPTER VIEWER (for DVD only)
• TRACK VIEWER (for VIDEO CD
  only)
• ANGLE VIEWER (for DVD only)

4 Press ENTER.

To return to the normal play
Press O RETURN.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

Notes
• Depending on the disc, you may not be able to select all functions.
• The sound is muted when using this function.

Dividing a track into 9 sections (STROBE PLAYBACK) DVD VIDEO CD

You can display 9 consecutive moving pictures on the screen. When you press II, the moving pictures pause.

Select "STROBE PLAYBACK" in Step 3, then press ENTER in Step 4.

Scanning the title, chapter or track DVD VIDEO CD

You can divide the screen into 9 subscreens and display the first scene of titles, chapters or tracks. You can also play back from the selected title, chapter or track.

Select the item you want in Step 3, then press ENTER in Step 4.

■When playing a DVD
Select "TITLE VIEWER" or "CHAPTER VIEWER".

■When playing a VIDEO CD
Select "TRACK VIEWER".

The initial scenes of titles, chapters or tracks appear.

To start playback from the selected scene

Select the scene using ←/↑/↓/→ and press ENTER. The playback starts from the selected scene.

☞ If there are more than 9 titles, chapters or tracks, ▼ is displayed at the right bottom.
To display the additional titles, chapters or tracks, select the right bottom scene (the position 9) and press ↓. To return to the previous scene, select the left top scene (the position 1) and press ↑.

1	2	3	
4	5	6	
7	8	9	▼

Displaying different angles simultaneously DVD

If various angles (multi-angles) for a scene are recorded on the DVD, you can display all of the angles recorded on the disc on the same screen, and start playback in continuous mode at the chosen angle. The angles are displayed on a screen divided in 9 sections.

Select "ANGLE VIEWER" in Step 3, then press ENTER in Step 4.

To return to the normal play
Press O RETURN.

43

Viewing the Playing Time and Remaining Time on the Front Panel Display DVD VIDEO CD CD

You can check information about the disc, such as the remaining time, total number of titles of a DVD, or tracks of a CD or VIDEO CD, using the front panel display (page 9).
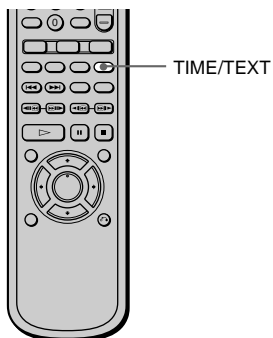
TIME/TEXT

Press TIME/TEXT.
Each time you press TIME/TEXT while playing the disc, the display changes as shown in the following chart.

When playing a DVD

Playing time and number of the current title

TITLE CHAP HOUR MIN SEC
1. 2   1:0324

↓

Remaining time of the current title

TITLE CHAP HOUR MIN SEC
1. 2   -1:1536

↓

Playing time and number of the current chapter

CHAP HOUR MIN SEC
2   02230

↓

Remaining time of the current chapter

CHAP HOUR MIN SEC
2   -01320

↓

Text

SONY HITS/S

When playing a VIDEO CD (without PBC functions) or CD

Playing time and current track number

TRACK INDEX MIN SEC
2. 1   225

↓

Remaining time of the current track

TRACK INDEX MIN SEC
2. 1   -1:50

↓

Playing time of the disc

MIN SEC
3212

↓

Remaining time of the disc

MIN SEC
-2018

↓

Text

SONY HITS/S

ヅ When playing VIDEO CDs with PBC functions, the scene number and the playing time are displayed.

ʼϘʼ The playing time and remaining time of the current chapter, title, track, scene, or disc will also appear on your TV screen. See the following section "Checking the Playing Time and Remaining Time" for instructions on how to read this information.

Note

Depending on the type of disc being played and the playing mode, the above mentioned disc information may not be displayed.

Checking the Playing Time and Remaining Time DVD VIDEO CD CD

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. Also, you can check the DVD/CD text recorded on the disc.

TIME/TEXT

DISPLAY

1 Press DISPLAY during playback.
The Control Menu appears.

```
1 2 ( 2 7 )            PLAY ▶
1 8 ( 3 4 )           DVD
T   1 : 3 2 : 5 5

                      Disc Type
Time information
```

2 Press TIME/TEXT repeatedly to change the time information.
The display and the kinds of time that you can change depend on the disc you are playing.

45

■When playing a DVD

- 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) 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

To turn off the Control Menu

Press DISPLAY repeatedly until the Control Menu is turned off.

Checking the DVD/CD text

Press TIME/TEXT repeatedly in Step 3 to display the text recorded on the DVD/CD. The DVD/CD text appears only when the text is recorded in the disc. You can not change the text.
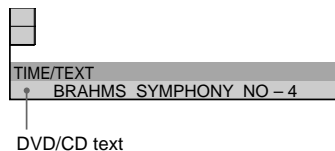
DVD/CD text

ᄃᄒ̣ If the DVD/CD text does not fit on a single line, you can see the entire text by watching it scroll across the front display.

ᄃᄒ̣ You can select the time and text by pressing TIME/TEXT.

Notes

- Only letters of the alphabet can be displayed.
- This player can only display the first level of DVD/CD text, such as the disc name or title.

46

Checking the Play Information (ADVANCED) DVD

You can check information such as the bit rate or the disc layer that is being played. While playing a disc, an approximate bit rate of the playback picture is always displayed as Mbps (Mega bit per second) and the audio as kbps (kilo bit per second).

↑/↓
ENTER
DISPLAY
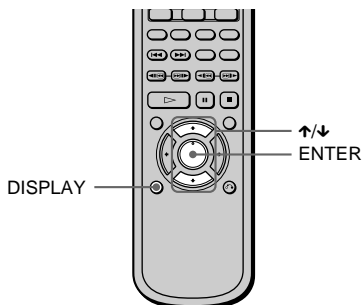
1 Press DISPLAY during playback.
The Control Menu is displayed.

2 Press ↑/↓ to select [ ][][][] (ADVANCED), then press ENTER.
The options for ADVANCED appear.

```
1 2 ( 2 7 )              PLAY  ▶
1 8 ( 3 4 )              DVD
T   1 : 3 2 : 5 5

BIT RATE         BIT RATE
OFF                            384kbps
BIT RATE
LAYER            ▮▮▮▮▮▮▮    10  Mbps
                 0      5
```
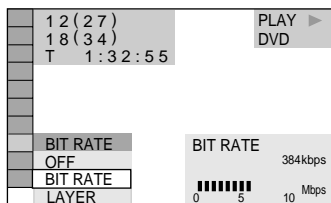
3 Press ↑/↓ to select items.
For each item, please refer to "Displays of each item."
• BIT RATE: displays the bit rate.
• LAYER: displays the layer and the pick-up point.

4 Press ENTER.

To close the ADVANCED window
Select "OFF" in Step 3.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

Displays of each item

By pressing DISPLAY repeatedly, you can display either "BIT RATE" or "LAYER," whichever was selected in "ADVANCED."

BIT RATE

```
BIT RATE
                    384kbps  ——— Audio
▮▮▮▮▮▮▮       Mbps  ——— Video
0      5      10
```
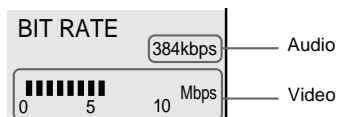
Bit rate refers to the amount of video/audio data per second in a disc. The higher the bit rate, the larger the amount of data. When the bit rate level is high, there is a large amount of data. However, this does not always mean that you can get higher quality pictures or sounds.

LAYER

Appears when the DVD has dual layers
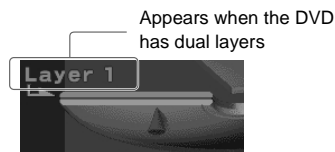
Layer 1

Indicates the approximate point where the disc is playing.
If it is a dual-layer DVD, the player indicates which layer is being read ("Layer 0" or "Layer 1").
For details on the layers, see page 79 (DVD).

47

Changing the Sound
DVD VIDEO CD CD

If the DVD is recorded with multilingual tracks, you can select the language you want while playing the DVD.
If the DVD is recorded in multiple audio formats (PCM, Dolby Digital, or DTS), you can select the audio format you want while playing the DVD.
With stereo CDs or VIDEO CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers. (In this case, the sound loses its stereo effect.) For example, when playing a disc containing a song with the vocals on the right channel and the instruments on the left channel, you can select the left channel and hear the instruments from both speakers.

AUDIO

↑/↓
ENTER
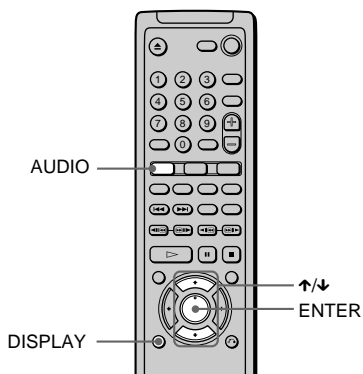
DISPLAY

1 Press DISPLAY during playback.
The Control Menu is displayed.

2 Press ↑/↓ to select ☐☐☐ (AUDIO), then ENTER.
The options for AUDIO appear.

```
12(27)                PLAY  ▶
18(34)                DVD
T  1:32:55
1: ENGLISH
1: ENGLISH        PROGRAM FORMAT
2: ENGLISH        DOLBY DIGITAL 3/2.1
3: FRENCH
                   L    C    R
                        LFE
                   LS        RS
```
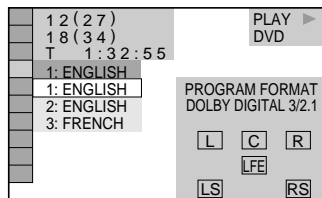
3 Press ↑/↓ to select the desired audio signal.

■ **When playing a DVD**
Depending on the DVD, the choice of language varies.
When 4 digits are displayed, they represent the language code. Refer to the language code list on page 82 to see which language the code represents.
When the same language is displayed two or more times, the DVD is recorded in multiple audio formats.

■ **When playing a VIDEO CD or CD**
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)

4 Press ENTER.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

ᄬ You can select AUDIO directly by pressing AUDIO. Each time you press the button, the item changes. During playing back a DVD, the sound may change automatically.

Note
For discs not in multiple audio format, you cannot change the sound.

48

Displaying the audio information of the disc DVD

When you select "AUDIO," the channels being played are displayed on the screen. For example, in Dolby Digital format, multiple signals ranging from monaural to 5.1 channel signals can be recorded on a DVD. Depending on the DVD, the number of the recorded channels may differ.

Current audio format*

```
┌─┐ 1 2 ( 2 7 )          PLAY  ▶
├─┤ 1 8 ( 3 4 )          DVD
├─┤ T   1 : 3 2 : 5 5
├─┤ 1: ENGLISH
├─┤                ┌─────────────────┐
├─┤                │ PROGRAM FORMAT  │
├─┤                │ DOLBY DIGITAL 3/2.1 │
├─┤                └─────────────────┘
├─┤                ┌──┐ ┌──┐ ┌──┐
├─┤                │L │ │C │ │R │
└─┘                └──┘ └──┘ └──┘
                        LFE
                   ┌──┐        ┌──┐
                   │LS│        │RS│
                   └──┘        └──┘
```

Current playing program format**
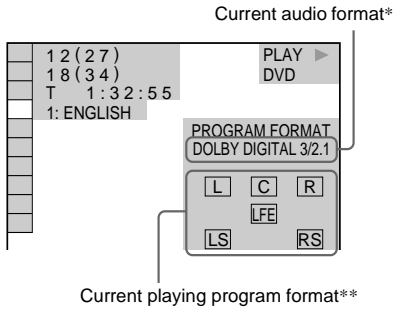
* "PCM," "DTS," "DOLBY DIGITAL" is displayed.
In case of "DOLBY DIGITAL," the channels in the playing track are displayed by numbers as follows:

For Dolby Digital 5.1 ch:

Rear component 2

DOLBY DIGITAL $\boxed{3}$ / $\boxed{2}$. $\boxed{1}$

Front component 2 + Center component 1

LFE (Low Frequency Effect) component 1
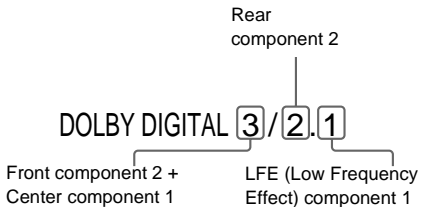
**The letters in the program format display mean the following sound component:

L : Front (left)
R : Front (right)
C : Center
LS : Rear (left)
RS : Rear (right)
S : Rear (monaural): The rear component of the Dolby Surround processed signal or the Dolby Digital signal.
LFE : LFE (Low Frequency Effect)

The display examples are as follows:

- PCM (stereo)

```
PROGRAM FORMAT
PCM 48kHz 24bit
```

- Dolby Surround

```
PROGRAM FORMAT
DOLBY DIGITAL  2/0
DOLBY SURROUND
┌──┐ ┌┈┐ ┌──┐
│L │ ┊C┊ │R │
└──┘ └┈┘ └──┘

     ┌┈┐
     ┊S┊
     └┈┘
```
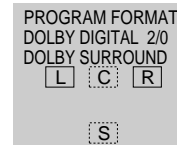
- Dolby Digital 5.1ch
When an LFE signal component is output, "LFE" is enclosed in a solid line. When an LFE signal component is not output, "LFE" is enclosed in a broken line.

```
PROGRAM FORMAT
DOLBY DIGITAL 3/2.1

┌──┐  ┌──┐  ┌──┐
│L │  │C │  │R │
└──┘  └──┘  └──┘
      LFE
┌──┐        ┌──┐
│LS│        │RS│
└──┘        └──┘
```
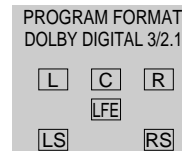
- DTS
"LFE" is always enclosed in a solid line regardless of the LFE signal component being output.

```
PROGRAM FORMAT
DTS 3/2.1

┌──┐  ┌──┐  ┌──┐
│L │  │C │  │R │
└──┘  └──┘  └──┘
      LFE
┌──┐        ┌──┐
│LS│        │RS│
└──┘        └──┘
```
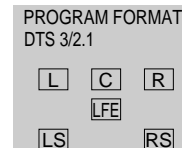
Notes

- When the signal contains rear signal components such as LS, RS or S, the Surround effect is enhanced (page 50).
- If "DTS" is set to "OFF" in "AUDIO SETUP (page 71)," the DTS track selection option will not appear on the screen even if the disc contains DTS tracks.

SURROUND Mode Settings
DVD VIDEO CD CD

You can enjoy surround sounds while playing discs including Dolby Digital DVDs, even if you have only 2 or 4 speakers. Select surround mode that best suits your speaker setup.

SURROUND

↑/↓
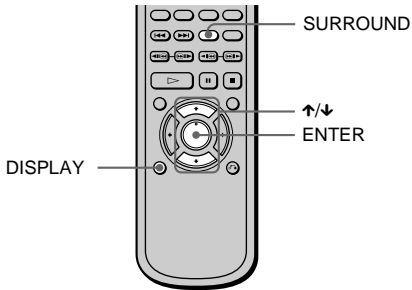
ENTER

DISPLAY

1 Press DISPLAY during playback.
The Control Menu appears.

2 Press ↑/↓ to select ☐ (((☐)))
(SURROUND), then press ENTER.
The options for SURROUND appear.

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



OFF

OFF
TVS DYNAMIC
TVS WIDE
        ▼
```
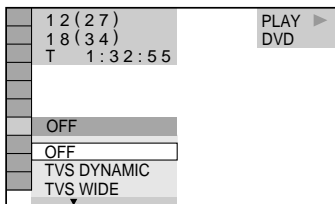
3 Press ↑/↓ to select one of the SURROUND sounds.
Refer to the following explanations given for each item.

For 2 speaker setups

- TVS DYNAMIC
- TVS WIDE
- TVS NIGHT
- TVS STANDARD

For 4 (or more) speaker setups

(If you select "NONE" in the setting of "REAR" in "SPEAKER SETUP"(page 72), you cannot select these modes.)
- NORMAL SURROUND
- ENHANCED SURROUND
- VIRTUAL REAR SHIFT
- VIRTUAL MULTI REAR
- VIRTUAL MULTI DIMENSION

4 Press ENTER.

To cancel the setting
Select "OFF" in Step 3.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

For 2 speaker setups

When you connect only 2 front speakers, TVS (TV Virtual Surround) lets you enjoy surround sound effects by using sound imaging to create virtual rear speakers from the sound of the front speakers (L: left, R: right) without using actual rear speakers. Select one of the following modes:

If the player is set up to output the signal from the DIGITAL OUT (OPTICAL or COAXIAL) jack, the surround effect will be heard only when you set "DOLBY DIGITAL" to "D-PCM" in "AUDIO SETUP." (page 71)

TVS (TV Virtual Surround) DYNAMIC

Uses sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers (shown below). The sound imaging effect is distinct and clearly reproduces each aural element of the audio track.
This mode is effective when the distance between the front L and R speakers is short, such as with built-in speakers on a stereo TV.
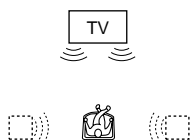
TVS (TV Virtual Surround) WIDE

Uses sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers. The virtual speakers are reproduced as shown in the illustration below. This gives the sound an expanded effect that fills the area surrounding the listener.
This mode is effective when the distance between the front L and R speakers is short, such as with built-in speakers on a stereo TV.
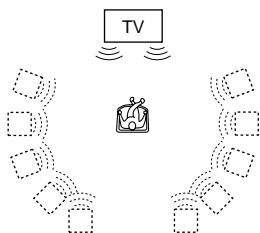
TVS (TV Virtual Surround) NIGHT

The large sounds, such as explosions, are compressed, but the quieter sounds are unaffected. This feature is useful when you don't want to disturb other people but still want to hear the dialog and enjoy the surround sound effects of TVS WIDE.

TVS (TV Virtual Surround) STANDARD

Uses sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers. The virtual speakers are reproduced as shown in the illustration below. Use this setting when you want to use TVS with 2 separate speakers and retain the sound quality.
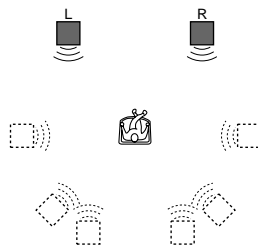
L : Front speaker (left)
R : Front speaker (right)
▢ : Virtual speaker

For 4 (or more) speaker setups

You can enjoy the following surround effects by using the 2 front speakers and 2 rear speakers.
Connect the player to the receiver with the **B-1** connection (page 21).
You can experience Dolby Surround (Pro Logic) sounds or Digital Cinema Sound (DCS). DCS uses sound imaging to shift the sound of the rear speakers away from the actual speaker position or create entire sets of virtual rear speakers from one set of actual rear speakers. "VIRTUAL REAR SHIFT," "VIRTUAL MULTI REAR," and "VIRTUAL MULTI DIMENSION" make use of this technology.

NORMAL SURROUND

Software with 2 channel audio signals is decoded with Dolby Surround (Pro Logic) to create surround effects. The rear speakers will emit identical monaural sounds. If you are using a center speaker, Dolby Surround (Pro Logic) will also create the appropriate sounds for the center speaker.
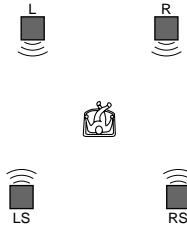
ENHANCED SURROUND

Provides a greater sense of presence from a Dolby Surround (Pro Logic) source with a monaural rear channel signal. Produces a stereo like effect in the rear channels.

VIRTUAL REAR SHIFT

Uses sound imaging to shift the sound of the rear speakers away from the actual speaker position.
The virtual speakers are reproduced as shown in the illustration below. The shift position differs according to "REAR" or "SIDE" setting of the rear speakers (page 72).
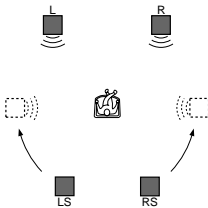
REAR

SIDE
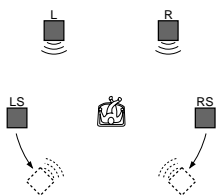
VIRTUAL MULTI REAR

Uses sound imaging to create an array of virtual rear speakers from a single pair of actual rear speakers. The virtual speakers are reproduced as shown in the illustration below. The position of the virtual rear speakers differs according to "REAR" or "SIDE" setting of the rear speakers (page 72).

REAR

SIDE

52
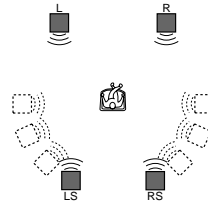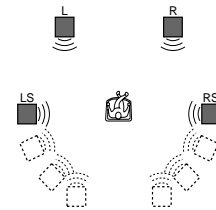
VIRTUAL MULTI DIMENSION

Uses sound imaging to create an array of virtual rear speaker positions higher than the listener from a single pair of actual rear speakers. This mode creates five sets of virtual speakers surrounding the listener at approximately a 30° angle of elevation. The effect differs according to "REAR" or "SIDE" setting of the rear speakers (page 72).
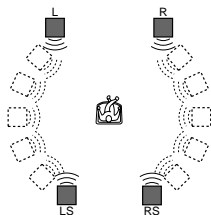
REAR

SIDE
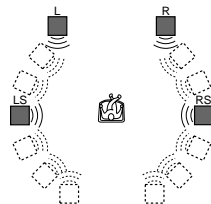
L : Front speaker (left)
R : Front speaker (right)
LS :Rear speaker (left)
RS :Rear speaker (right)
▢ : Virtual speaker

You can select SURROUND directly by pressing SURROUND on the remote or player. Each time you press the button, the item changes. If you select any setting other than "OFF," the indicator on the player lights up.

Notes

- To enjoy the multichannel audio through the 5.1CH OUTPUT jacks, correctly set each speaker position and distance. For details on setting each speaker, see page 72.
- When you select an item, the sound cuts off for a moment.
- When the playing signal does not contain a signal for the rear speakers (page 49), the surround effects may be difficult to hear.
- When you select "TVS DYNAMIC," "TVS WIDE," "TVS NIGHT" or "TVS STANDARD," the player does not output the sound from the center speaker.
- When you select one of the SURROUND modes, turn off the surround setting of the connected TV or amplifier (receiver).
- If the player is set up to output the signal from the DIGITAL OUT (OPTICAL or COAXIAL) jack, the surround effect will not be heard when you play a CD.
- Make sure that your listening position is between and at an equal distance from your speakers, and that the speakers are located in similar surroundings. Otherwise, the TVS effect may be hard to discern.
- TVS NIGHT only works with Dolby Digital discs. However, not all discs will respond to the TVS NIGHT function in the same way.
- If you use the DIGITAL OUT (OPTICAL or COAXIAL) jack and set "DOLBY DIGITAL" to "DOLBY DIGITAL" in "AUDIO SETUP," sound will come from your speakers but it will not have the TVS effect.

53

Changing the Angles DVD

If various angles (multi-angles) for a scene are recorded on the DVD, "ANGLE" appears in the front panel display. This means that you can change the viewing angle.
For example, while playing a scene of a train in motion, you can display the view from either the front of the train, the left window of the train or from the right window without having the train's movement interrupted.

Number Buttons

ANGLE

↑/↓/→
ENTER
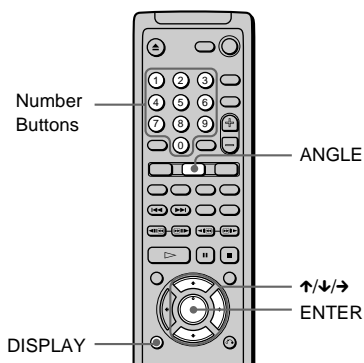
DISPLAY

1 Press DISPLAY during playback.
The Control Menu appears.

2 Press ↑/↓ to select ▮ 🎥 (ANGLE).
The number of the angle appear.
The number in parentheses indicates the total number of angles.

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


 1(9)
```
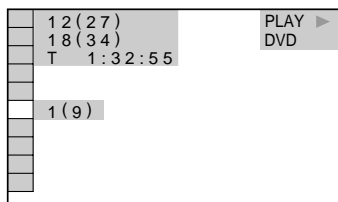
3 Press → or ENTER.
The number of the angle changes to "-."

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


 -(9)
```
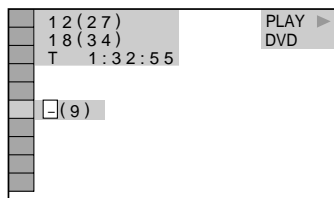
4 Select the angle number using the number buttons or ↑/↓, then press ENTER.
The angle is changed to the selected angle.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

🔆 You can select the angle directly by pressing ANGLE. Each time you press the button, the angle changes.

🔆 You can display all the angles recorded on the disc on the same screen, and start playback directly in continuous mode from the chosen angle. The angles are displayed on a screen divided in 9 sections. For details, see page 42.

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

Displaying the Subtitles
 DVD

If subtitles are recorded on the discs, you can turn the subtitles on and off whenever you want while playing. If multilingual subtitles are recorded on the disc, you can change the subtitle language while playing, and turn it on or off whenever you want. For example, you can select the language you want to practice and turn the subtitles on for better understanding.

SUBTITLE

↑/↓
ENTER
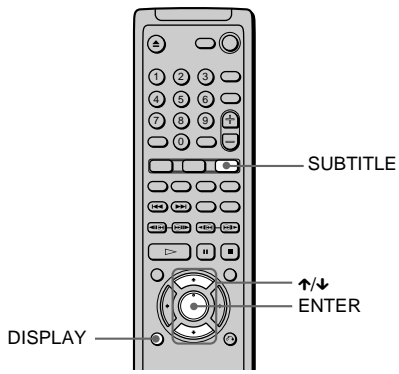
DISPLAY

1 Press DISPLAY during playback.
The Control Menu appears.

2 Press ↑/↓ to select ▢▢ (SUBTITLE), then press ENTER.

The options for SUBTITLE appear.

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

OFF
OFF
1: ENGLISH
2: FRENCH
3: SPANISH
```
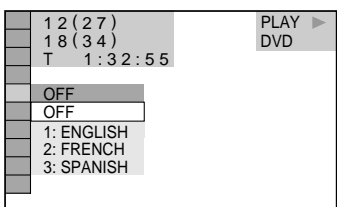
3 Press ↑/↓ to select the language.
Depending on the DVD, the choice of language varies.
When 4 digits are displayed, they indicate the language code. Refer to the language code list on page 82 to see which language the code represents.

4 Press ENTER.

To cancel the setting
Select "OFF" in Step 3.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

ʚ̣ You can select SUBTITLE directly by pressing SUBTITLE. Each time you press the button, the item changes.

Note
Depending on the DVD, you may not be able to change the subtitles on even if multilingual subtitles are recorded on it.

Enjoying Movies

55

Adjusting the Picture Quality (BNR) DVD VIDEO CD

The Block Noise Reduction (BNR) function adjusts the picture quality by reducing the "block noise" or mosaic like patterns that appear on your TV screen.

BNR

↑/↓
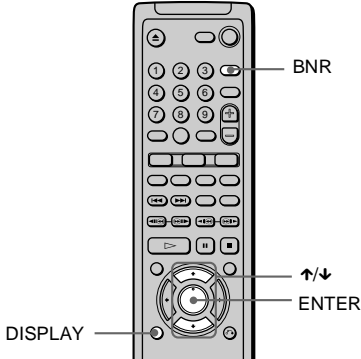
ENTER

DISPLAY

1 Press DISPLAY twice during playback.
The Control Menu appears.

2 Press ↑/↓ to select ⌐ BNR (BNR), then press ENTER.
The options for BNR appear.

```
12(27)          PLAY ▶
18(34)          DVD
T   1:32:55
OFF
1
2
3
OFF
```
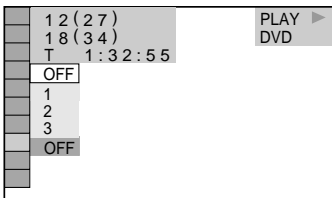
3 Press ↑/↓ to select a level.
As the value increases, the mosaic like patterns on your TV screen will decrease.
- 1: reduces the "block noise".
- 2: reduces the "block noise" more than 1.
- 3: reduces the "block noise" more than 2.

4 Press ENTER.
The disc plays with the setting you selected.

To cancel the BNR setting
Select "OFF" in Step 3.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

ʾɔ̈́ You can set BNR while the player is stopped.

ʾɔ̈́ You can select BNR directly by pressing BNR on the remote or player. Each time you press the button, the item changes. If you select any setting other than "OFF," the indicator on the player lights up.

Notes
- If the outlines of the images on your screen should become blurred, set "BNR" to "OFF."
- Depending on the disc or the scene being played, the BNR effect may be hard to discern,

Enhancing the Playback Picture (DIGITAL VIDEO ENHANCER)

DVD **VIDEO CD**

The Digital Video Enhancer function makes the picture appear clear and crisp by enhancing the outlines of images on your TV screen. Also, this function can soften the images on the screen.
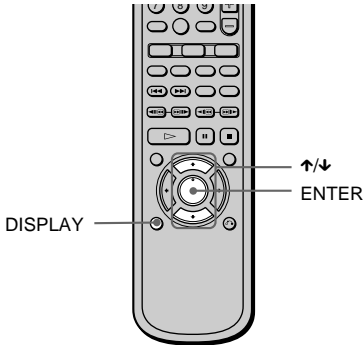
DISPLAY
↑/↓
ENTER

1 Press DISPLAY twice during playback.
The Control Menu appears.

2 Press ↑/↓ to select ⌐ ▣ (DIGITAL VIDEO ENHANCER), then press ENTER.
The options for DIGITAL VIDEO ENHANCER appear.

```
  12(27)            PLAY ►
  18(34)            DVD
  T   1:32:55
  OFF
  1
  2
  3
  SOFT
  OFF
```
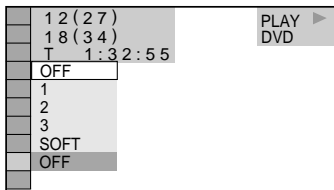
3 Press ↑/↓ to select a level.
As the value increases, the outlines of images on your TV screen will become crisper.
- 1: enhances the outline.
- 2: enhances the outline more than 1.
- 3: enhances the outline more than 2.
- SOFT: softens the image (DVD only).

4 Press ENTER.
The disc plays with the setting you selected.

To cancel the DIGITAL VIDEO ENHANCER setting
Select "OFF" in Step 3.

To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

ᄝ̣ You can set DIGITAL VIDEO ENHANCER while the player is stopped.

Note

Depending on the DVD/VIDEO CD disc or the scene being played, noise found in the disc may become more apparent. If this happens, reduce the Digital Video Enhancer level.

Enjoying Movies

57

Locking Discs (CUSTOM PARENTAL CONTROL, PARENTAL CONTROL)

You can set two kinds of playback restrictions for the desired disc.
- Custom Parental Control
  You can set the playback restrictions so that the player will not play inappropriate discs.
- Parental Control
  Playback of some DVDs can be limited according to a predetermined level such as the age of the users.

The same password is used for both Parental Control and Custom Parental Control.

Custom Parental Control
DVD **VIDEO CD** **CD**

You can set the same Custom Parental Control password for up to 50 discs. When you set the fifty-first-disc, the first disc is cancelled.

Number buttons

■
←/↑/↓
ENTER
DISPLAY
⌂ RETURN
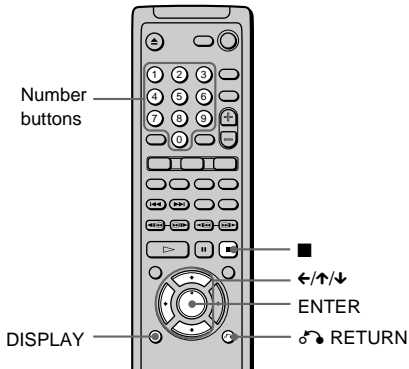
1 **Insert the disc you want to lock.**
If the disc is playing, press ■ to stop playback.

2 **Press DISPLAY while the player is in stop mode.**
The Control Menu appears.

3 **Press ↑/↓ to select ▢▢▢ (CUSTOM PARENTAL CONTROL), then press ENTER.**
"CUSTOM PARENTAL CONTROL" is selected.

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




OFF
ON →
PASSWORD→
```
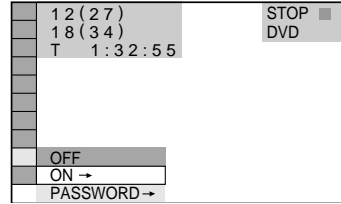
4 **Press ↑/↓ to select "ON →", then press ENTER.**

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

```
CUSTOM PARENTAL CONTROL

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

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

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

```
CUSTOM PARENTAL CONTROL

Enter password, then press ENTER .
   ■    ■    ■    ■
```

58
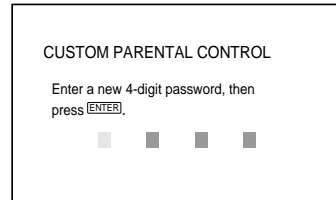
5 Enter or re-enter your 4-digit password by using the number buttons, then press ENTER.

"Custom parental control is set." appears and then the screen returns to the Control Menu display.

If you make a mistake entering your password

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

If you make a mistake

Press O→ RETURN, then start from Step 3 again.

To turn off the Control Menu

Press O→ RETURN, then press DISPLAY repeatedly until the Control Menu is turned off.

To turn off the Custom Parental Control function

1 In Step 4, select "OFF →," then press ENTER.

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

To change the password

1 In Step 4, press ↑/↓ to select "PASSWORD →," then press ENTER. The display for entering the password appears.

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

3 Enter a new 4-digit password using the number buttons, then press ENTER.

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

Playing the 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 .

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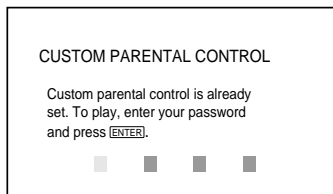
2 Enter your 4-digit password using the number buttons, then press ENTER.
The player is ready for playback.

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

Limiting playback by children (Parental Control) DVD

Playback of some DVDs 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.
A scene that is limited is not played, or it is replaced by a different scene.

Number buttons

▷

↑/↓/→
ENTER

DISPLAY

O→ RETURN

Using Various Additional Functions
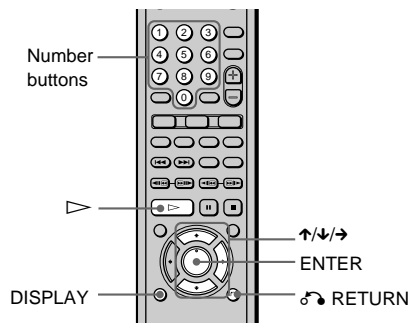
1 Press DISPLAY while the player is in stop mode.
The Control Menu appears.

2 Press ↑/↓ to select [SETUP] (SETUP), then press ENTER.

3 Press ↑/↓ select "CUSTOM", then press ENTER.
The Setup Display appears.

4 Press ↑/↓ to select "CUSTOM SETUP," then press ENTER.
CUSTOM SETUP is displayed.

```
CUSTOM SETUP
AUTO PLAY:          OFF
DIMMER:             BRIGHT
PAUSE MODE:         AUTO
PARENTAL CONTROL    →
PLAYBACK MEMORY:    ON
TRACK SELECTION:    OFF
```
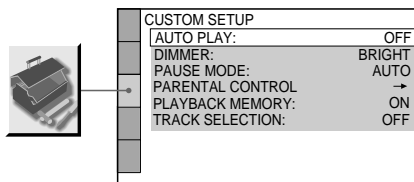
5 Press ↑/↓ to select "PARENTAL CONTROL →," then press ENTER.

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

```
CUSTOM SETUP

PARENTAL CONTROL

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

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

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

```
CUSTOM SETUP

PARENTAL CONTROL

Enter password, then press ENTER .
    ■    ■    ■    ■
```
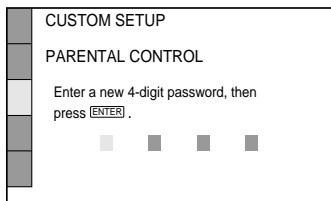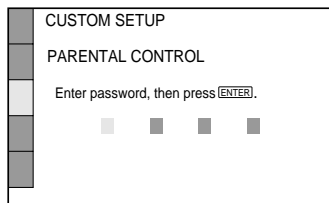
6 Enter or re-enter your password using the number buttons, then press ENTER.
The display for setting the playback limitation level and changing the password appears.

```
CUSTOM SETUP

PARENTAL CONTROL
LEVEL:              OFF
STANDARD:           USA
CHANGE PASSWORD      →
```
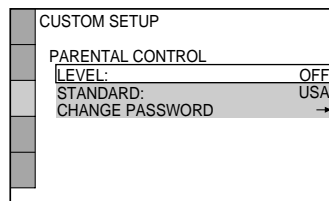
7 Press ↑/↓ to select "STANDARD," then press ENTER.
The selection items for "STANDARD" are displayed.

```
CUSTOM SETUP

PARENTAL CONTROL
LEVEL:              OFF
STANDARD:           USA
CHANGE PASSWORD     USA
                    OTHERS→
```
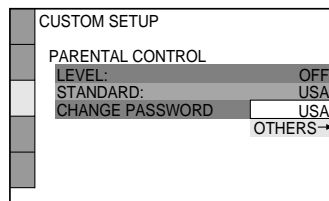
8 Press ↑/↓ to select a geographic area as the playback limitation level, then press ENTER.
The area is selected.
When you select "OTHER →" select and enter the standard code in the table on page 62 using the number buttons.

9 Press ENTER.

The selection items for "LEVEL" are displayed.

```
CUSTOM SETUP

PARENTAL CONTROL
LEVEL:                    OFF
STANDARD:                 OFF
CHANGE PASSWORD
                    8:
                    7:    NC17
                    6:      R
                    5:     ▼
```
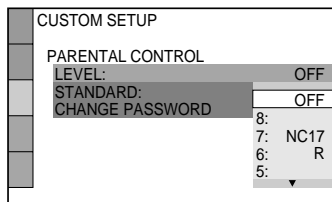
10 Select the level you want using ↑/↓, then press ENTER.

Parental Control setting is complete.

```
CUSTOM SETUP

PARENTAL CONTROL
LEVEL:              4:  PG13
STANDARD:               USA
CHANGE PASSWORD         →
```
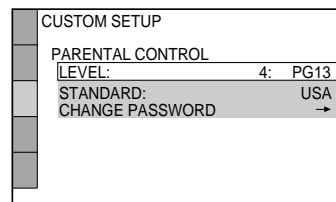
The lower the value, the more strict the limitation.

If you make a mistake

Press ⟳ RETURN to go back to the previous screen.

To turn off the Setup Display

Press DISPLAY repeatedly until the Setup Display is turned off.

To turn off the Parental Control function and play the DVD after entering your password

Set "LEVEL" to "OFF" in Step 10.

To change the password

1 In Step 7, select "CHANGE PASSWORD →" using ↓, then press ENTER.

The display for entering the password appears.

2 Follow Step 6 to enter a new password.

Playing the disc for which Parental Control is set

1 Insert the disc and press ▷.

The PARENTAL CONTROL display appears.

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

The player starts playback.

✇ If you forget your password, remove the disc and repeat Step 1 to 5 of "Limiting playback by children". When you are asked to enter your password, enter "199703" using the number buttons, then press ENTER. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password in Step 6, replace the disc in the player and press ▷. When the PARENTAL CONTROL display appears, enter your new password.

Notes

- When you play DVDs which do not have the Parental Control function, playback cannot be limited on this player.
- Depending on the DVD, 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 cancelled, the level returns to the original level.

Using Various Additional Functions

Area Code

Standard	Code number	Standard	Code number
Argentina	2044	Korea	2304
Australia	2047	Malaysia	2363
Austria	2046	Mexico	2362
Belgium	2057	Netherlands	2376
Brazil	2070	New Zealand	2390
Canada	2079	Norway	2379
Chile	2090	Pakistan	2427
China	2092	Philippines	2424
Denmark	2115	Portugal	2436
Finland	2165	Russia	2489
France	2174	Singapore	2501
Germany	2109	Spain	2149
Hong Kong`	2219	Sweden	2499
India	2248	Switzerland	2086
Indonesia	2238	Taiwan	2543
Italy	2254	Thailand	2528
Japan	2276	United Kingdom	2184

Operation Sound Effects
(Sound Feedback)

The player beeps when the following operations are performed.
The default setting of the Sound Feedback function is set to off.

Operation	Operation sound
Power is turned on	One beep
Power is turned off	Two beeps
▷ is pressed	One beep
❚❚ is pressed	Two beeps
Playback is stopped	One long beep
Operation is not possible	Three beeps

To set Sound Feedback

POWER   ⏏
┌─ Power indicator

❚❚

I/(¹)
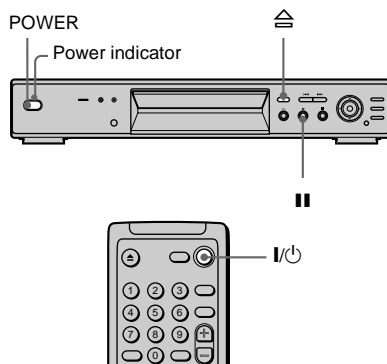
1 Press POWER on the player, then press I/(¹) on the remote.
The power indicator lights up in green. When there is a disc in the player, press ⏏ and remove the disc. Then press ⏏ again to close the disc tray.

2 Press and hold ❚❚ on the player for more than two seconds.
You will hear one beep and the Sound Feedback function is turned on.

To turn off the Sound Feedback function

When there is no disc in the player, press and hold **II** on the player for more than two seconds. You will hear two beeps and the Sound Feedback function is turned off.

Controlling Your TV or AV Amplifier (Receiver) with the Supplied Remote

By adjusting the remote signal, you can control your TV or AV amplifier (receiver) with the supplied remote.
If you connect the player with a AV amplifier (receiver), you can control the volume with the supplied remote.

Notes

• Depending on the units being connected, you may not be able to control your TV or AV amplifier (receiver) using some of the buttons below.
• If you enter a new code number, the code number previously entered will be erased.
• When you replace the batteries of the remote, the code number may be reset to the default setting. Reset the appropriate code number.

Controlling TVs with the remote
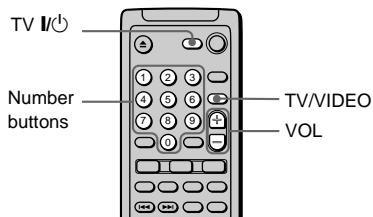
Hold down TV **I/**⏻, and enter your TV's manufacturer's code (see the table) using the number buttons. Then release TV **I/**⏻.

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.

Using Various Additional Functions

Manufacture	Code number	Manufacture	Code number
Sony (default)	01	Philco	03,04
Akai	04	Philips	08,21
AOC	04	Pioneer	16
Centurion	12	Portland	03
Coronado	03	Quasar	06,18
Curis-Mathes	12	Radio Shack	05,14
Daytron	12	RCA	04,10
Emerson	03,04,14	Sampo	12
Fisher	11	Samsung	20
General Electric	06,10	Sanyo	11
Gold Star	03,04,17	Scott	12
Hitachi	02,03	Sears	07,10,11
J.C.Penney	04,12	Sharp	03,05,18
JVC	09	Sylvania	08,12
KMC	03	Teknika	03,08,14
Magnavox	03,08,12	Toshiba	07
Marantz	04,13	Wards	03,04,12
MGA/Mitsubishi	04,12,13,17	Yorx	12
NEC	04,12	Zenith	15
Panasonic	06,19		

Controlling the TV

You can control your TV using the buttons below.

By pressing	You can
TV I/⏻	Turn the TV on or off
VOL	Adjust the volume of the TV
TV/VIDEO	Switch the TV's input source between the TV and other input sources
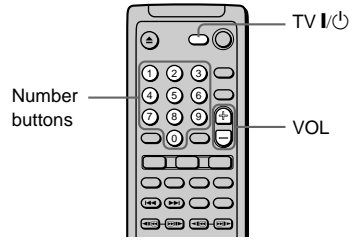
Hold down TV I/⏻, and enter your AV receiver's manufacturer's code (see the table) using the number buttons. Then release TV I/⏻.

Code numbers of controllable AV amplifiers (receivers)

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

Manufacturer	Code number
Sony	91, 89
Denon	84, 85, 86
Kenwood	92, 93
Onkyo	81, 82, 83
Pioneer	99
Sansui	87
Technics	97, 98
Yamaha	94, 95, 96

Controlling the AV amplifier (receiver)

You can change the volume of the AV amplifier (receiver) using VOL +/−.

Using the Setup Display
DVD VIDEO CD CD

By using the Setup Display, you can make various adjustments to items such as picture and sound. You can also set a language for the subtitles and the Setup Display, among other things. For details on each Setup Display item, see page 66. For an overall list of Setup Display items, see page 83.

How to use the Setup Display
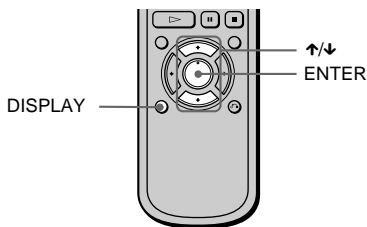
DISPLAY
↑/↓
ENTER

1 Press DISPLAY when the player is in stop mode.
The Control Menu appears.

2 Press ↑/↓ to select ⬛ (SETUP), then press ENTER.
The options for SETUP appear.

```
( 47 )                          STOP
                                DVD
           :    :




         QUICK
         CUSTOM
         RESET
         QUICK
```

3 Press ↑/↓ to select "CUSTOM" then press ENTER.
The Setup Display appears.

```
LANGUAGE SETUP
OSD:                    ENGLISH
DVD MENU:               ENGLISH
AUDIO:                  ORIGINAL
SUBTITLE:               ENGLISH
```
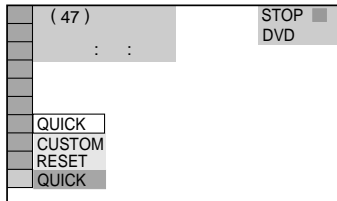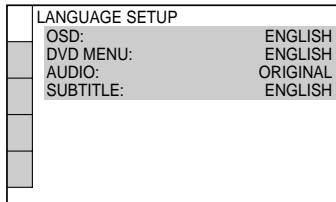
4 Press ↑/↓ to select the setup item from the displayed list: "LANGUAGE SETUP," "SCREEN SETUP," "CUSTOM SETUP," or "AUDIO SETUP," and "SPEAKER SETUP." Then press ENTER.
The selected setup item appears.
Example: "SCREEN SETUP"

Selected item

```
SCREEN SETUP
TV TYPE:            4:3 LETTER BOX
SCREEN SAVER:                   ON
BACKGROUND:     JACKET PICTURE
```

Setup items
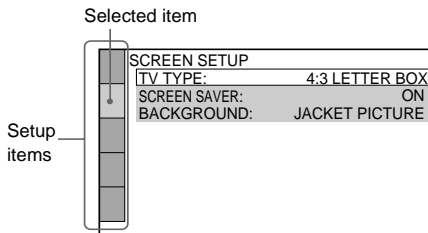
5 Select an item using ↑/↓, then press ENTER.
The options for the selected item appear.
Example: "TV TYPE"

```
SCREEN SETUP
TV TYPE:            4:3 LETTER BOX
SCREEN SAVER:      4:3 LETTER BOX
BACKGROUND:          4:3 PAN SCAN
                              16:9
```

Options
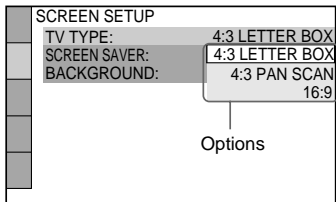
6 Select a setting using ↑/↓, then press ENTER.
The setting is selected and setup is complete.
Example: "16:9"

Settings and Adjustments
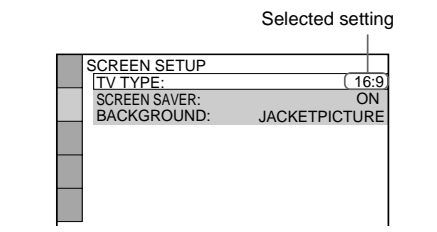
continued

Selected setting

```
SCREEN SETUP
TV TYPE:                    16:9
SCREEN SAVER:               ON
BACKGROUND:          JACKETPICTURE
```

To turn off the Setup Display

Press DISPLAY repeatedly until the Setup Display is turned off.

ϙ̆ If you select "QUICK" in Step 3, you will enter the Quick Setup mode (page 25). Follow from Step 5 of the Quick Setup explanation to make basic adjustments.

ϙ̆ If you select "RESET" in Step 3, you can reset all of the "SETUP" settings on page 83 to 85 (except for PARENTAL CONTROL) to the default settings. After you select "RESET" and press ENTER, select "YES" to reset the settings (it takes a few seconds to complete), or select "NO" and press ENTER to return to the Control Menu. Do not press POWER or I/⏻ when resetting the player.

Setting the Display or Sound Track Language

(LANGUAGE SETUP)

DVD **VIDEO CD** **CD**

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

Select "LANGUAGE SETUP" in the Setup Display. For details on using the display, see "Using the Setup Display" (page 65).

```
LANGUAGE SETUP
OSD:                    ENGLISH
DVD MENU:               ENGLISH
AUDIO:                  ORIGINAL
SUBTITLE:               ENGLISH
```
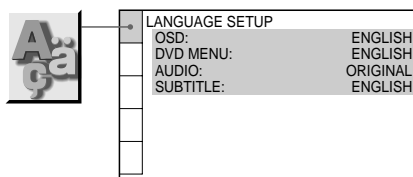
■OSD (On-Screen Display)

Switches the display language on the screen. Selects the language from the displayed list.

■DVD MENU (DVD only)

You can select the desired language for the DVD menu.

■AUDIO (DVD only)

Switches the language of the sound track. Selects the language from the displayed list. When you select "ORIGINAL," the language given priority in the disc is selected.

■SUBTITLE (DVD only)

Switch the language of the subtitle. Select the language from the displayed list. When you select "AUDIO FOLLOW," the language for the subtitles changes according to the language you selected for the sound track.

66

ヴ If you select "OTHERS →" in "DVD MENU,"
"SUBTITLE," and "AUDIO," select and enter the
language code from the list using the number buttons
(page 82).
After you have made a selection, the language code (4
digits) is displayed the next time you select "OTHERS
→."

Note

When you select a language that is not recorded on the
DVD, one of the recorded languages will be
automatically selected (except for the "OSD").

Settings for the Display
(SCREEN SETUP) DVD VIDEO CD CD

Choose settings according to the TV to be
connected.

Select "SCREEN SETUP" in the Setup
Display. For details on using the display, see
"Using the Setup Display" (page 65).
The default settings are underlined.

```
SCREEN SETUP
TV TYPE:              4:3 LETTER BOX
SCREEN SAVER:                    ON
BACKGROUND:         JACKET PICTURE
```
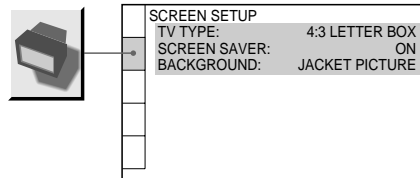
■TV TYPE (DVD only)

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

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	Select this when you connect a wide-screen TV or a TV with a wide mode function.

Settings and Adjustments

4:3 LETTER BOX

4:3 PAN SCAN

16:9

Note

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

■SCREEN SAVER

Turns on and off the screen saver so that the screen saver image appears when you leave the player in pause or stop mode for 15 minutes, or when you play back a CD for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press ▷ to turn off 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 CD.

JACKET PICTURE	The jacket picture (still picture) appears in the background, 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 player appears in the background.
BLUE	The background color is blue.
BLACK	The background color is black.

Custom Settings (CUSTOM SETUP) DVD VIDEO CD CD

Allows setting up Parental Control and other settings.

Select "CUSTOM SETUP" in the Setup Display. For details on using the display, see "Using the Setup Display" (page 65). The default settings are underlined.


```
CUSTOM SETUP
AUTO PLAY:          OFF
DIMMER:             BRIGHT
PAUSE MODE:         AUTO
PARENTAL CONTROL    →
PLAYBACK MEMORY:    ON
TRACK SELECTION:    OFF
```
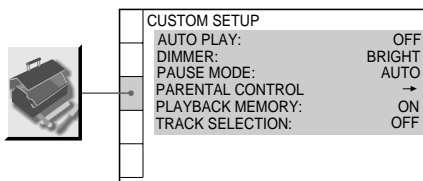
■AUTO PLAY

Selects the Auto Play setting when you turn on the player.

OFF	Does not use "TIMER," "DEMO1," or "DEMO2" to start playback.
TIMER	Starts playing when the player is turned on. The player can be played at any time when connected to a timer (not supplied). Set the timer when the player is in standby mode (the power indicator lights up in red).
DEMO1	Starts playing the first demonstration automatically.
DEMO2	Starts playing the second demonstration automatically.

■DIMMER

Adjusts the lighting of the front panel display.

BRIGHT	Makes the front panel display bright.
DARK	Makes the front panel display dark.
OFF	Turns off the lighting of the front panel display.

68

■PAUSE MODE (DVD 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.

■PARENTAL CONTROL → (DVD only)

Set a password and playback limitation level for DVDs with playback limitation for children. For details, see "Limiting playback by children (Parental Control)" (page 59).

■PLAYBACK MEMORY

The player can store the SUBTITLE and other settings of each disc for up to 50 discs (Playback Memory).
Set the Playback Memory function on or off.

ON	Stores the settings in memory when you eject the disc.
OFF	Does not store the settings in memory.

The following settings are stored in memory by the Playback Memory function.
— AUDIO (page 48)*
— BNR (page 56)
— DIGITAL VIDEO ENHANCER (page 57)
— SUBTITLE (page 55)*
— SURROUND (page 50)
 *DVD only

Notes

- The player can store the settings of up to 50 discs. When you store the setting of disc number 51, the first disc setting is canceled.
- Depending on the DVD, the information stored in the disc takes priority over the Playback Memory settings and the function does not work.
- During playback, do not turn off the player by pressing POWER on the player. Doing so may cancel the settings. When you turn off the player, press ■ first to stop playback and then press I/⏻ on the remote. After the power indicator lights up in red and the player enters standby mode, press POWER on the player.

■TRACK SELECTION (DVD only)

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

OFF	No priority given.
AUTO	Priority given.

Notes

- 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 66).
- If you set "DTS" to "OFF" (page 71), the DTS sound track is not played even if you set "TRACK SELECTION" to "AUTO".
- If PCM, DTS and Dolby Digital sound tracks have the same number of channels, the player selects PCM, DTS and Dolby Digital sound tracks in this order.
- Depending on the DVD, the audio channel with priority may be predetermined. In this case, you cannot give priority to the DTS, Dolby Digital, or format by selecting "AUTO."

Settings and Adjustments

Settings for the Sound
(AUDIO SETUP)

"AUDIO SETUP" allows you to set the sound according to the playback and connection conditions.

Select "AUDIO SETUP" in the Setup Display. For details on using the display, see "Using the Setup Display" (page 65). The default settings are underlined.

```
AUDIO SETUP
AUDIO ATT:              OFF
AUDIO DRC:         STANDARD
CENTER SPEAKER EQ:     FLAT
DOWNMIX:       DOLBY SURROUND
DIGITAL OUT:            ON
  DOLBY DIGITAL:      D-PCM
  DTS:                 OFF
  48kHz/96kHz PCM:  48kHz/16bit
```
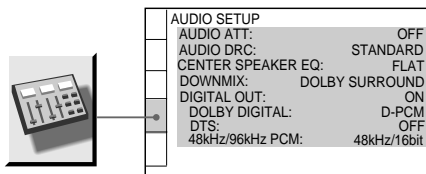
■AUDIO ATT (attenuation)

If the playback sound is distorted, set this item to "ON." The player reduces the audio output level.
This function affects the output of the following jacks:
— LINE OUT L/R (AUDIO) 1/2 jacks
— 5.1CH OUTPUT jacks

OFF	Turns off the audio attenuation. Normally, select this position.
ON	Reduces the audio output level so that no sound distortion occurs. Select this when the playback sound from the speakers is distorted.

■AUDIO DRC (Dynamic Range Control) (DVD only)

Makes the sound clear when the volume is turned down when playing a DVD that has the AUDIO DRC function. This affects the output from the following jacks:
— LINE OUT L/R (AUDIO) 1/2 jacks
— 5.1CH OUTPUT jacks
— DIGITAL OUT (OPTICAL or COAXIAL) jack only when "DOLBY DIGITAL" is set to "D-PCM" (page 71).

STANDARD	Normally, select this position.
TV MODE	Makes the low sounds clear even if you turn the volume down. It is especially recommended when you listen to the sound using the speakers of the TV.
WIDE RANGE	Gives you the feeling of being at a live performance. When you use high quality speakers, it is even more effective.

■CENTER SPEAKER EQ (equalizer)

Makes the spoken track clear when speech is difficult to hear. This function affects the output to the center speaker that is connected to 5.1CH OUTPUT.

FLAT	Outputs the spoken track as it was recorded.
ENHANCED	Enhances the spoken track only.
SOFT	Makes the sound softer by rounding out the sound frequency above 8kHz. Select this when the spoken track sounds shrill.

■DOWNMIX (DVD only)

Switches the mixing down methods when you play a DVD on which rear signal components such as LS, RS, or S are recorded in Dolby Digital format. For details on the rear signal components, see "Changing the Sound" (page 48). This function affects the output of the following jacks:
— LINE OUT L/R (AUDIO) 1/2 jacks
— DIGITAL OUT (OPTICAL or COAXICAL) jack when "DOLBY DIGITAL" is set to "D-PCM" (page 71).

DOLBY SUR-ROUND	Select this when the player is connected to an audio component that conforms to Dolby Surround (Pro Logic). The output signals which reproduce the Dolby Surround effect are downmixed to 2 channels.

NORMAL	Select this when the player is connected to an audio component that does not conform to Dolby Surround (Pro Logic). All of the output signals are downmixed to 2 channels without the Dolby Surround (Pro Logic) effect.

■DIGITAL OUT

Selects if audio signals are output via the DIGITAL OUT (OPTICAL or COAXIAL) jack.

ON	Normally, select this position. When you select "ON," set "DOLBY DIGITAL," "DTS", and "48kHz/ 96kHz PCM". For details on setting these items, see "Setting the digital output signal."
OFF	The player does not output the audio signals via the DIGITAL OUT (OPTICAL or COAXIAL) jack. The influence of the digital circuit upon the analog circuit is minimal.

Setting the digital output signal

Switches the method of outputting audio signals when you connect the following component using an optical or a coaxial digital cord via the DIGITAL OUT (OPTICAL or COAXIAL) jack.
— Amplifier (receiver) with digital input jack
— Amplifier (receiver) with a built-in DTS or DOLBY DIGITAL decoder
— MD or DAT deck
For connection details, see page 19.
Select "DOLBY DIGITAL," and "DTS" after setting "DIGITAL OUT" to "ON."

```
AUDIO SETUP
AUDIO ATT:                    OFF
AUDIO DRC:               STANDARD
CENTER SPEAKER EQ:           FLAT
DOWNMIX:          DOLBY SURROUND
DIGITAL OUT:                   ON
  DOLBY DIGITAL:            D-PCM
  DTS:                       OFF
  48kHz/96kHz PCM:     48kHz/16bit
```

■DOLBY DIGITAL

Selects the Dolby Digital signals output via the DIGITAL OUT (OPTICAL or COAXIAL) jack.

D-PCM	Select this when the player is connected to an audio component lacking a built-in Dolby Digital decoder. You can select whether the signals conform to Dolby Surround (Pro Logic) or not by making adjustments to the "DOWNMIX" item in "AUDIO SETUP." (page 70)
DOLBY DIGITAL	Select this when the player is connected to an audio component with a built-in Dolby Digital decoder. If the player is connected to an audio component lacking a built-in Dolby Digital decoder, do not set this. Otherwise, when you play the Dolby Digital sound track, a loud noise (or no sound) will come out from the speakers, affecting your ears or causing the speakers to be damaged.

■DTS

Select if DTS signals are output via the DIGITAL OUT (OPTICAL and COAXIAL) jack.

OFF	Select this when the player is connected to an audio component lacking a built-in DTS decoder. Note, however, that the DTS signals contained in a CD are output even if "OFF" is selected.
ON	Select this when the player is connected to an audio component having a built-in DTS decoder. If the player is connected to an audio component lacking a built-in DTS decoder, do not set this. Otherwise, when you play the DTS sound track, a loud noise (or no sound) will come out from the speakers, affecting your ears or causing the speakers to be damaged.

■48kHz/96kHz PCM (DVD only)

Selects the sampling frequency of the audio signal to be output via the DIGITAL OUT (OPTICAL or COAXIAL) jacks.

<u>48kHz/16bit</u>	The audio signals of DVDs are always converted to 48kHz/16 bit.
96kHz/24bit	All types of signals including 96kHz/24bit are output in their original format. However, if the signal is encrypted for copyright protection purposes, the signal is only output as 48 kHz/16 bit. If a receiver (amplifier) which cannot accept 96Hz is connected to the player, do not set this. Otherwise, a loud noise may come out from the speakers.

Notes

- Even if you set "48kHz/96kHz PCM" in "AUDIO SETUP" to "96kHz/24bit," the sampling frequency is converted to 48kHz/16bit when a SURROUND mode (page 50) is selected.
- The analog audio signals from the LINE OUT L/R (AUDIO) 1/2 jacks are not affected by this setting and keep their original sampling frequency level.

Settings for the Speakers
(SPEAKER SETUP)

To obtain the best possible surround sound, set the size of the speakers you have connected and their distance from your listening position. Then use the test tone to adjust the volume and the balance of the speakers to the same level.
This setting is effective when connecting the speaker with 5.1CH OUTPUT jacks (page 21).

Select "SPEAKER SETUP" in the Setup Display. For details, see "Using the Setup Display" (page 65).
The default settings are underlined.


```
SPEAKER SETUP
  SIZE:
  DISTANCE:
  BALANCE:
  LEVEL:
  TEST TONE:      OFF
    FRONT:                    LARGE
    CENTER:                   LARGE
    REAR:              LARGE(REAR)
    SUBWOOFER:                  YES
```
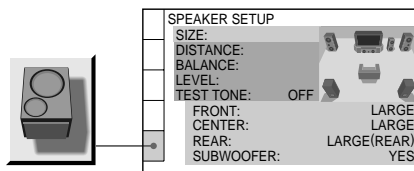
To return to the default setting

Select the item, then press CLEAR.

■SIZE

Selects the size of the speakers to be connected.
- FRONT

<u>LARGE</u>	Normally select this position.
SMALL	When the sound cracks or the surround sound effects are difficult to hear, select this. This activates the Dolby Digital bass redirection circuitry and outputs the bass frequencies of the front speaker from the subwoofer.

- CENTER

<u>NONE</u>	If you do not connect a center speaker, select this.
LARGE	Normally select this position.

72

SMALL	When the sound cracks or the surround sound effects are difficult to hear, select this. This activates the Dolby Digital bass redirection circuitry and outputs the bass frequencies of the center speaker from other speakers.

• REAR

NONE	If you do not connect rear speakers, select this.
LARGE	(REAR/SIDE): Normally select this position. Select either of these according to the rear speaker's position*.
SMALL	(REAR/SIDE): When the sound cracks or the surround sound effects are difficult to hear, select this. Select either of these according to the rear speaker's position*. This activates the Dolby Digital bass redirection circuitry and outputs the bass frequencies of the rear speaker from other speakers.

* Rear speaker position (REAR/SIDE)

Correctly specify the location of the rear speakers to enjoy the SURROUND effect.
• Set to the "SIDE," if the location of the rear speakers corresponds to section Ⓐ below.
• Set to the "REAR," if the location of the rear speakers corresponds to section Ⓑ below.

This setting affects only "VIRTUAL REAR SHIFT," "VIRTUAL MULTI REAR," and "VIRTUAL MULTI DIMENSION" mode (page 51).
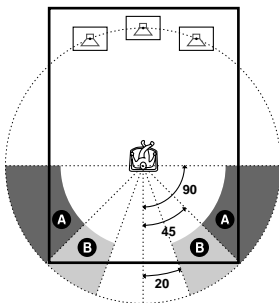
• SUBWOOFER

NONE	If you do not connect a subwoofer, select this. This activates the Dolby Digital bass redirection circuitry and outputs the LFE signals from the front speakers as long as the front speaker size is set to "LARGE."
YES	If you connect a subwoofer, select this to output the LFE (low frequency effect) channel from the subwoofer. When you set the other speakers settings to "SMALL," the subwoofer makes up for the missing bass frequencies of the speakers.

Notes

• The cut off frequency for the subwoofer is fixed at 120 Hz.
• If your speakers are too small to reproduce low bass frequencies, please set all speaker settings to "SMALL" and utilize a subwoofer for low frequency sound.
• Even if there are fewer than 6 speakers connected, the player distributes the audio signal components to the front speakers.

■ DISTANCE

The default distance setting for the speakers in relation to the listening position is shown below.
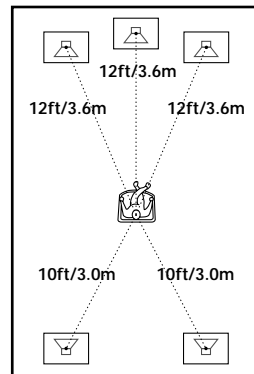
Be sure to change the value in the Setup Display when you move the speakers. The default adjustments are in parentheses.

Settings and Adjustments

FRONT (12ft/3.6m)	Front speaker distance from the listening position can be set in 1 foot (0.3 meter) increments from 4 to 50 feet (1.2 to 15.2 meters).
CENTER (12ft/3.6m)	Center speaker distance can be moved up to 2 feet (0.6 meters) backward from the front speakers or 5 feet (1.5 meters) forward closer to the listening position, in 1 foot (0.3 meter) increments.
REAR (10ft/3m)	Rear speaker distance can be moved up to 16 feet (4.8 meters) closer to your listening position from the front speaker position, in 1 foot (0.3 meter) increments.

Notes

• If each or the front or rear speakers are not placed at an equal distance from your listening position, set the distance according to the closest speaker.
• Do not place the rear speakers farther away from your listening position than the front speakers.

■BALANCE

You can vary the balance of the left and right speakers as follows. Be sure to set "TEST TONE" to "ON" for easy adjustment.
The default adjustments are in parentheses.

FRONT (0dB)	Adjust the balance between the front left and right speakers (–6dB [L] to +6dB [R], 0.5dB increments).
REAR (0dB)	Adjust the balance between the rear left and right speakers (–6dB [L] to +6dB [R], 0.5dB increments).

■LEVEL

You can vary the level of each speaker as follows. Be sure to set "TEST TONE" to "ON" for easy adjustment.
The default adjustments are in parentheses.

CENTER (0dB)	Adjust the level of the center speaker (–6dB to +6dB, 0.5dB increments).
REAR (0dB)	Adjust the level of the rear speakers (–6dB to +6dB, 0.5dB increments).
SUBWOOFER (0dB)	Adjust the level of the subwoofer (–10dB to +10dB, 0.5dB increments).

To adjust the volume of all the speakers at one time

Use the amplifier's (receiver's) volume control.

■TEST TONE

The speakers will emit a test tone. Use this when you use the 5.1CH OUTPUT jacks and adjust the "BALANCE" and "LEVEL".

OFF	The test tone is not emitted from the speakers.
ON	The test tone is emitted from each speaker in sequence while adjusting balance or level. When you select one of the "SPEAKER SETUP" items, the test tone is emitted from both left and right speakers simultaneously.

Adjusting the speaker volume and level

1 After you stop playback, select "SPEAKER SETUP" in the Setup Display.

2 Select "TEST TONE" and set "TEST TONE" to "ON."
You will hear the test tone from each speaker in sequence.

74

3 From your listening position, select "BALANCE" or "LEVEL" and adjust the value of "BALANCE" using ←/→ and "LEVEL" using ↑/↓.

The test tone is emitted from both left and right speakers simultaneously.

4 Select "TEST TONE" and set "TEST TONE" to "OFF" to turn off the test tone.

Note

When you adjust the speaker settings, the sound cuts off for a moment.

Settings and Adjustments

Troubleshooting

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

Power

The power is not turned on.

➡ Check that the AC power cord is connected securely.

Picture

There is no picture.

➡ The connecting cords are not connected securely.
➡ The connecting cords are damaged.
➡ The player is not connected to the correct TV input jack (page 17).
➡ The video input on the TV is not set so that you can view pictures from the player.

Picture noise appears.

➡ The disc is dirty or flawed.
➡ If the picture output from your player 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 player directly to your TV, please try connecting your player to your TV's S video input (page 17).

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

➡ The aspect ratio of the disc is fixed on your DVD.

Sound

There is no sound.

➡ The connecting cord is not connected securely.
➡ The connecting cord is damaged.
➡ The player is connected to the wrong input jack on the amplifier (receiver) (page 21, 23, 24).
➡ The amplifier (receiver) input was not changed so that you can listen to the player.
➡ The player is in pause mode or in Slow-motion play mode.
➡ The player is in fast forward or fast reverse mode.
➡ If the audio signal does not come through the DIGITAL OUT (OPTICAL or COAXIAL) jack, check the audio settings (page 71).

Sound is noisy.

➡ The disc is dirty or flawed.
➡ When playing a CD with DTS sound tracks, noise will come from the LINE OUT L/R (AUDIO) 1/2 jacks (page 31).

Sound distortion occurs.

➡ Set "AUDIO ATT" in "AUDIO SETUP" to "ON" (page 70).

The surround effect is difficult to hear when you are playing a Dolby Digital sound track.

➡ Check the speaker connections and setting (page 21, 27, 71)
➡ Depending on the DVD, the output signal may not be the entire 5.1 channels. It may be monaural or stereo even if the sound track is recorded in Dolby Digital format.

The sound comes from the center speaker only.

➡ Depending on the disc, the sound may come from the center speaker only.
➡ Set "SURROUND" to "OFF" in the Control Menu display (page 50).

76

Operation

The remote does not function.

➡ There are obstacles between the remote and the player.

➡ The distance between the remote and the player is too far.

➡ The remote is not pointed at the remote sensor on the player.

➡ The batteries in the remote are weak.

The disc does not play.

➡ There is no disc inside.

➡ The disc is turned over.
Insert the disc with the playback side facing down on the disc tray.

➡ The disc is skewed.

➡ The player cannot play CD-ROMs, etc. (page 6).

➡ The region code on the DVD does not match the player.

➡ Moisture has condensed inside the player. Remove the disc and leave the player turned on for about half an hour. Turn on the power again before playing the disc (page 3).

The disc does not start playing from the beginning.

➡ Program Play, Shuffle Play, Repeat Play, or A-B Repeat Play has been selected (page 35). Press CLEAR to cancel these functions before playing a disc.

➡ Resume Play has been selected.
During stop, press ■ on the player or the remote and then start playback DVD (page 32).

➡ The title, DVD or PBC menu automatically appears on the TV screen.

The player starts playing the disc automatically.

➡ The DVD features an auto playback function.

➡ "AUTO PLAY" in "CUSTOM SETUP" is set to "TIMER" (page 68).

Playback stops automatically.

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

You cannot perform some functions such as stop, Search, Slow-motion play, Repeat Play, Shuffle Play, or Program Play.

➡ Depending on the disc, you may not be able to do some of the operations above. See the operating manual that comes 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 66).

The language for the sound track cannot be changed.

➡ Multilingual tracks are not recorded on the DVD being played.

➡ The DVD prohibits the changing of 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 the changing of the subtitles.

The subtitle cannot be turned off.

➡ The DVD prohibits the subtitles being turned off.

Additional Information

77

The angles cannot be changed.

➡ Multi-angles are not recorded on the DVD being played. The angle can be changed when the "ANGLE" indicator lights up on the front panel display (page 9).

➡ The DVD prohibits changing of the angles.

The player does not operate properly.

➡ When static electricity, etc., causes the player to operate abnormally, press POWER on the player to turn the player off and then on again.

Nothing is displayed on the front panel display.

➡ "DIMMER" in "CUSTOM SETUP" is set to "OFF." Set "DIMMER" to "BRIGHT" or "DARK" (page 68).

5 numbers or letters are displayed on the screen and on the front panel display.

➡ The self-diagnosis function was activated. (See the table on page 78.)

The disc tray does not open and "LOCKED" appears on 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 player from malfunctioning, a five-character service number (e.g., C 13 00) with a combination of a letter and digits appears on the screen and the front panel display. In this case, check the following table.

First three characters of the service number	Cause and/or Corrective Action
C 13	The disc is dirty. ➡ Clean the disc with a soft cloth (page 7).
C 31	The disc is not inserted correctly. ➡ Re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the player 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

Glossary

Chapter (page 9)

Sections of a picture or a music feature that are smaller than titles. A title is composed of several chapters. Depending on the disc, no chapters may be recorded.

Digital Cinema Sound (DCS) (page 51)

Technology that Sony developed to enjoy surround sound in a home using 4 or more speakers. It simulates the sound of a movie editing studio instead of the usual concert hall so that you can enjoy the surround sound of a movie theater in the comfort of your own home.

Dolby Digital (page 21, 71)

Digital audio compression technology developed by Dolby Laboratories. This technology conforms to 5.1-channel surround sound. The rear channel is stereo and there is a discrete subwoofer channel in this format. Dolby Digital provides the same 5.1 discrete channels of high quality digital audio found in Dolby Digital cinema audio systems. Good channel separation is realized because all of the channel data are recorded discretely and little deterioration is realized because all channel data processing is digital.

Dolby Surround (Pro Logic) (page 24)

Audio signal processing technology that Dolby Laboratories developed for surround sound. When the input signal contains a surround component, the Pro Logic process outputs the front, center and rear signals. The rear channel is monaural.

DTS (page 21, 71)

Digital audio compression technology that Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround sound. The rear channel is stereo and there is a discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio.

Good channel separation is realized because all of the channel data is recorded discretely and little deterioration is realized because all channel data processing is digital.

DVD (page 6)

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 is 4.7 GB (Giga Byte), which is 7 times that of a CD. The data capacity of a double-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD is 9.4 GB, and double-layer and double-sided DVD is 17GB.

The picture data uses the MPEG 2 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 (average) of its original size. The DVD also uses a variable rate coding technology that changes the data to be allocated according to the status of the picture. Audio information is recorded in Dolby Digital as well as in PCM, allowing you to enjoy a more real audio presence. Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

Index (CD)/Video Index (VIDEO CD) (page 9)

A number that divides a track into sections to easily locate the point you want on a VIDEO CD or CD. Depending on the disc, no index may be recorded.

Parental Control (page 59)

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

Region Code (page 6)

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

Scene (page 9)

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

Title (page 9)

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 (page 9)

Sections of a picture or a music feature on a VIDEO CD or CD (the length of a song).

TV Virtual Surround (TVS) (page 50)

Technology from Sony developed to produce surround sound for home use using just a stereo TV. Designed to work with the sound characteristics of your TV, this technology brings the excitement of surround sound to your home using nothing more than your stereo TV's internal speakers. Furthermore, various TVS modes are available. For example, TVS WIDE uses just two speakers to create a virtual sound environment that makes you feel like you are surrounded by multiple speakers.

Specifications

System

Laser	Semiconductor laser
Signal format system	NTSC

Audio characteristics

Frequency response	DVD (PCM 96 kHz): 2 Hz to 44 kHz (±1.0 dB)
	DVD (PCM 48 kHz): 2 Hz to 22 kHz (±0.5 dB)
	CD: 2 Hz to 20 kHz (±0.5 dB)
Signal-to-noise ratio (S/N ratio)	115 dB (LINE OUT L/R (AUDIO) 1/2 jacks only)
Harmonic distortion	0.003 %
Dynamic range	DVD: 103 dB
	CD: 99 dB
Wow and flutter	Less than detected value (±0.001% W PEAK)

Outputs

Jack name	Jack type	Maximum output level	Load impedance
LINE OUT L/R (AUDIO) 1/2	Phono jack	2 Vrms (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output jack	-18 dBm	Wave length: 660 nm
DIGITAL OUT (COAXIAL)	Phono jack	0.5 V$_{P-P}$	75 ohms terminated
LINE OUT (VIDEO) 1/2	Phono jack	1.0 V$_{P-P}$	75 ohms, sync negative
S VIDEO OUT 1/2	4-pin mini DIN	Luminance signal: 1.0 V$_{P-P}$ Color signal: 0.286 V$_{P-P}$	75 ohms, sync negative 75 ohms terminated
COMPONENT VIDEO OUT(Y, P$_B$, P$_R$)	Phono jack	Y: 1.0 V$_{P-P}$ P$_B$, P$_R$: 0.7 V$_{P-P}$	75 ohms, sync negative 75 ohms
5.1CH OUTPUT	Phono jack	2 Vrms (at 50 kilohms)	Over 10 kilohms

General

Power requirements	120V AC, 60 Hz
Power consumption	13 W
Dimensions (approx.)	$430 \times 74 \times 256$ mm ($17 \times 3 \times 10^{1/8}$ in.) (w/h/d) incl. projecting parts
Mass (approx.)	2.7 kg (5lb)
Operating temperature	5 °C to 35 °C (41 °F to 95 °F)
Operating humidity	25 % to 80 %

Supplied accessories

See page 14.

Specifications and design are subject to change without notice.

ENERGY STAR® is a U.S. registered mark. As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Additional Information

Language Code List

For details, see page 48, 55, 66.
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;	1248 Indonesian	1393 Occitan	1528 Thai
Bangla	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	1436 Portuguese	1538 Turkish
1103 Welsh	1287 Georgian	1463 Quechua	1539 Tsonga
1105 Danish	1297 Kazakh	1481 Rhaeto-	1540 Tatar
1109 German	1298 Greenlandic	Romance	1543 Twi
1130 Bhutani	1299 Cambodian	1482 Kirundi	1557 Ukrainian
1142 Greek	1300 Kannada	1483 Romanian	1564 Urdu
1144 English	1301 Korean	1489 Russian	1572 Uzbek
1145 Esperanto	1305 Kashmiri	1491 Kinyarwanda	1581 Vietnamese
1149 Spanish	1307 Kurdish	1495 Sanskrit	1587 Volapük
1150 Estonian	1311 Kirghiz	1498 Sindhi	1613 Wolof
1151 Basque	1313 Latin	1501 Sangho	1632 Xhosa
1157 Persian	1326 Lingala	1502 Serbo-Croatian	1665 Yoruba
1165 Finnish	1327 Laothian	1503 Singhalese	1684 Chinese
1166 Fiji	1332 Lithuanian	1505 Slovak	1697 Zulu
1171 Faroese	1334 Latvian; Lettish	1506 Slovenian	
1174 French	1345 Malagasy		1703 Not specified
1181 Frisian			

List of Setup Display Items

The default settings are underlined.

LANGUAGE SETUP (page 66)

OSD	ENGLISH FRENCH SPANISH PORTUGUESE
DVD MENU	ENGLISH FRENCH SPANISH PORTUGUESE GERMAN ITALIAN DUTCH CHINESE JAPANESE DANISH SWEDISH FINNISH NORWEGIAN RUSSIAN OTHERS →
AUDIO	ORIGINAL (All other selections are same as the DVD MENU language.)
SUBTITLE	AUDIO FOLLOW (All other selections are same as the DVD MENU language.)

SCREEN SETUP (page 67)

TV TYPE	4:3 LETTER BOX 4:3 PAN SCAN 16:9
SCREEN SAVER	ON OFF
BACKGROUND	JACKET PICTURE GRAPHICS BLUE BLACK

Additional Information

CUSTOM SETUP (page 68)

AUTO PLAY	OFF TIMER DEMO1 DEMO2
DIMMER	BRIGHT DARK OFF
PAUSE MODE	AUTO FRAME
PARENTAL CONTROL →	
PLAYBACK MEMORY	ON OFF
TRACK SELECTION	OFF AUTO

AUDIO SETUP (page 70)

AUDIO ATT	OFF ON		
AUDIO DRC	STANDARD TV MODE WIDE RANGE		
CENTER SPEAKER EQ	FLAT ENHANCED SOFT		
DOWNMIX	DOLBY SURROUND NORMAL		
DIGITAL OUT	ON	DOLBY DIGITAL	D-PCM DOLBY DIGITAL
		DTS	OFF ON
		48kHz/96kHz PCM	48kHz/16bit 96kHz/24bit
	OFF		

84

SPEAKER SETUP (page 72)

SIZE	FRONT	<u>LARGE</u> SMALL
	CENTER	<u>NONE</u> LARGE SMALL
	REAR	<u>NONE</u> LARGE (REAR) LARGE (SIDE) SMALL (REAR) SMALL (SIDE)
	SUBWOOFER	<u>NONE</u> YES
DISTANCE (The distance from the listening position.)	FRONT	4ft ~ 50ft (1.2m ~ 15.2m)
	CENTER	0ft ~ 52ft (0m ~ 15.8m) (It changes according to the distance from the front speaker.)
	REAR	0ft ~ 50ft (0m ~ 15.2m) (It changes according to the distance from the front speaker.)
BALANCE	FRONT	- 6dB ~ + 6dB
	REAR	- 6dB ~ + 6dB
LEVEL	CENTER	- 6dB ~ + 6dB
	REAR	- 6dB ~ + 6dB
	SUBWOOFER	- 10dB ~ + 10dB
TEST TONE	<u>OFF</u> ON	

Index

U

Usable discs 6

V

VIDEO CD 30
VIEWER 42

Printed on recycled paper

http://www.world.sony.com/