

SACD/DVD Player

Operating Instructions



DVP-S9000ES

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 SACD/DVD player is harmful to eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.



This label is located on the Laser protective housing inside the enclosure.



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.

Welcome!

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

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-S9000ES
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.

NOTE:

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.

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Features

Thank you for purchasing this Sony SACD/DVD player. Here are some of the features you will enjoy.

Compatible with progressive (480p) signal format TVs

By connecting your TV to the COMPONENT VIDEO OUT connectors on this player, you can choose between the standard interlace signals or the high quality progressive signals if your TV accepts the progressive signal format. When outputting the progressive signal, you can set the signal to match either video or film based software to ensure a perfect match between the DVD software and your hardware.

Capable of playing 2 channel SACDs (Super Audio CD)

This player will play both standard audio CDs and the high quality sounds contained in the HD (high density) layer of stereo Super Audio CDs.

Capable of detailed video image settings

In addition to standard brightness and color settings, this player also has a variety of ways to reduce noise, increase sharpness and adjust the gamma value to create the ideal image. Furthermore, these adjustments can either be saved for each of your discs (Playback Memory) or can be saved to one of five settings (memory 1 through 5) so you can quickly adjust the player to the type of DVD software that you are watching.

High quality sound reproduction

By pressing the AUDIO DIRECT button on the player, the digital audio output and video output can be cut. This will eliminate the effects of the digital audio and video circuitry, thus providing even clearer analog audio output. The VIDEO ON/OFF button on the remote can be used to cut just the video signal. Use these buttons when you want to experience the full clarity of an audio CD such as an Super Audio CD.

Access control (Custom Parental Control)

You can set a password that will control the access of a maximum of 300 discs.

Adjustable display brightness and high visibility remote buttons

You can adjust the brightness of the front panel display, or turn it off completely. This is useful when you are watching a movie with the lights turned low and you do not want to be disturbed by a bright display window. Conversely, selected buttons on the remote can be set to light up so that you can operate your player when the room is dark.

About This Manual

Conventions

- 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 icons on the right are used in this manual:

Icon	Meaning
	Indicates tips and hints for making the task easier.
	Indicates that the function is for DVD VIDEOS.
	Indicates that the function is for VIDEO CDs.
	Indicates that the function is for SACDs and for Audio CDs.

This Player Can Play the Following Discs

	DVD VIDEOS	Super Audio CDs	Audio CDs	VIDEO CDs
Disc logo		 SUPER AUDIO CD		
Contents	Audio + Video	Audio	Audio	Audio + Video

The "DVD VIDEO" logo is a trademark.

This player conforms to the NTSC color system. You cannot play discs recorded in other color systems such as PAL or SECAM.

Region code of DVDs you can play on this unit

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

DVDs labeled  will also play on this unit.

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.



Note on playback operations of DVDs and VIDEO CDs

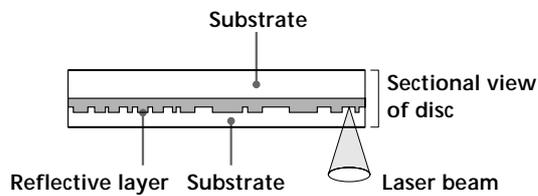
Some playback operations of DVDs and VIDEO CDs may be intentionally fixed by software producers. Since this player plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also refer to the instructions supplied with the DVDs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

This Player Can Play the Following Discs

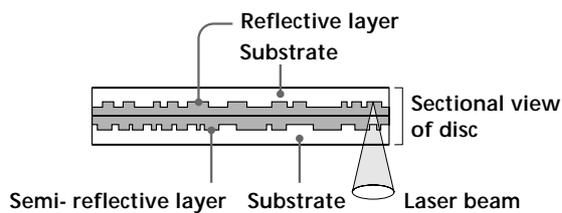
DVD

A DVD disc contains both audio and visual data, and is either 12 or 8 centimeters in diameter. A 12 centimeter disc can hold 7 times the amount of data contained in a CD-ROM, which translates to 4 consecutive hours of playing time (8 hours for double-sided discs). DVD discs are divided into 4 types: single sided single layer, single sided double layer, double sided single layer, and double sided double layer.

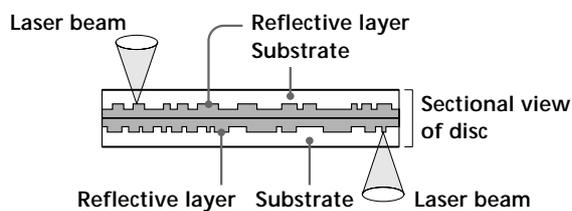
- **Single-layer single-sided:** Capacity 4.7 GB



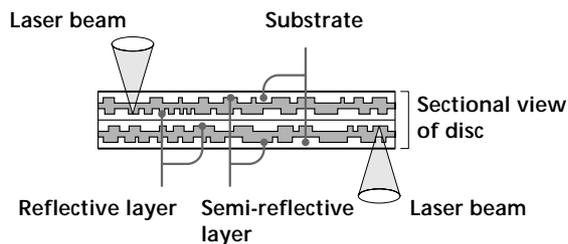
- **Double-layer single-sided:** Capacity 8.5 GB



- **Single-layer double-sided:** Capacity 9.4 GB



- **Double-layer double-sided:** Capacity 17 GB



Super Audio CD (SACD)

An SACD disc can reproduce sounds that are extremely faithful to the original sound by use of DSD (Direct Stream Digital) technology. This technology utilizes a sampling frequency of 2.8224MHz, which is 64 times that of a conventional CD, and 1-bit quantization that enables the disc to hold 4 times the amount of information that a standard PCM format CD can hold. SACDs are divided into the following types.

- **Super Audio CD (single layer disc)**

This disc consists of a single HD layer*.

Press SACD/CD repeatedly so that the SACD indicator on the player lights up.

* High density signal layer for the Super Audio CD

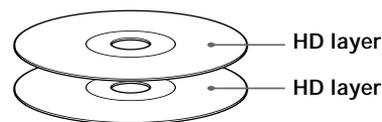


- **Super Audio CD (dual layer disc)**

This disc consists of dual HD layers and is capable of extended play over long periods.

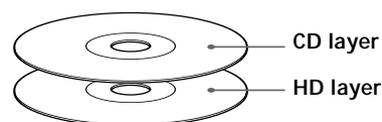
Press SACD/CD repeatedly so that the SACD indicator on the player lights up.

Also, as the dual layer disc consists of dual HD layers on one side only, you do not have to turn the disc over during playback.



- **Super Audio CD + CD (Hybrid disc)**

This disc consists of an HD layer and a CD layer. Press SACD/CD while the disc is stopped to select the layer you want to listen to. Also, as the dual layers are on one side only, you do not have to turn the disc over during playback. You can play the CD layer using a conventional CD player.



Audio CD

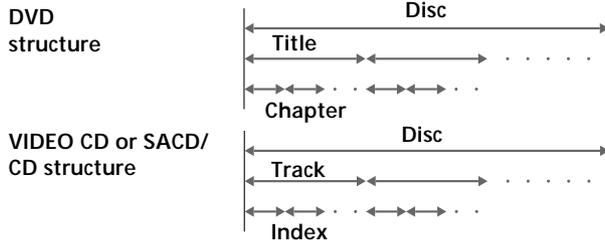
An audio CD contains audio data. The playing time is 74 minutes for a standard 12 centimeter CD, and 20 minutes for an 8 centimeter CD single.

Video CD

A video CD can contain both audio and visual data in a disc that is the same size as an audio CD. The playing time is 74 minutes for a standard 12 centimeter CD, and 20 minutes for an 8 centimeter CD single.

Terms for discs

- **Title**
The longest section of a picture or music feature on a DVD, the movie, etc. in video software, or the name of an album in audio software.
- **Chapter**
Sections of a picture or a music feature that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want. Depending on the disc, no chapters may be recorded.
- **Track**
Sections of a picture or a music feature on a VIDEO CD or a SACD/CD. Each track is assigned a track number enabling you to locate the track you want.



- **Index (SACD/CD) / Video Index (VIDEO CD)**
A number that divides a track into sections to easily locate the point you want on a VIDEO CD or an SACD/CD. Depending on the disc, no indexes may be recorded.
- **Scene**
On a VIDEO CD with PBC (playback control) functions, the menu screens, moving pictures and still pictures are divided into sections called "scenes." Each scene is assigned a scene number enabling you to locate the scene you want.

Note on PBC (Playback Control) (VIDEO CDs)

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

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

Discs that the player cannot play

The player cannot play discs other than the ones listed in the table on page 5. CD-Rs, CD-ROMs including PHOTO CDs, data sections in CD-EXTRAS, DVD-ROMs, DVD-audio etc., cannot be played.

When playing DTS*-encoded CDs, excessive noise will be heard from the analog stereo outputs. To avoid possible damage to the audio system, the consumer should take proper precautions when the analog stereo outputs of the DVD player are connected to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1-channel DTS Digital Surround™ decoder system must be connected to the digital output of the DVD player.

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

Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture. In case of 480 progressive scan picture problems, it is recommended that the user switches the connection to the standard definition output. If there are questions regarding your Sony TV set's compatibility with this model 480p DVD player, please contact our customer service center.

* "DTS," "DTS Digital Surround" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

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 Sony dealer.

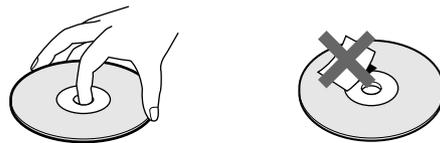
IMPORTANT NOTICE

Caution: The enclosed DVD 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.

Notes About the Discs

On handling discs

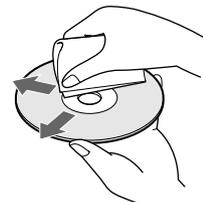
- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc. If there is glue (or a similar substance) on the disc, remove the glue completely before using the disc.



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

On cleaning

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



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

On novelty discs

- Do not use irregularly shaped discs such as heart- or star-shaped discs as they may cause the player to malfunction.

Getting Started

This section describes how to hook up the SACD/DVD player to a TV (with audio/video input jacks) and/or an AV receiver (amplifier). You cannot connect this player to a TV which does not have a video input connector. Be sure to turn off the power of each component before making the connections.

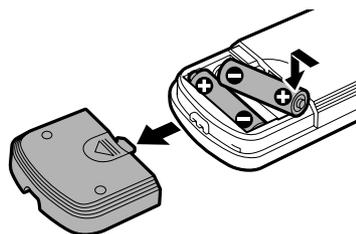
Unpacking

Check that you have the following items:

- Audio/video connecting cord (1)
- S-link (Control S) connecting cord (1)
- S video cord (1)
- Power cord (1)
- Remote commander (remote) RMT-D122A (1)
- Size AA (R6) batteries (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.



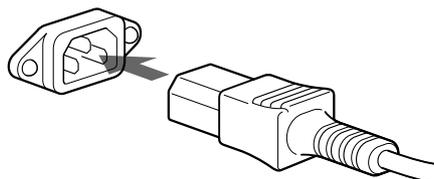
 You can control TVs and AV receivers (amplifiers) using the supplied remote
See page 64.

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 sunlight or lighting apparatuses. 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.

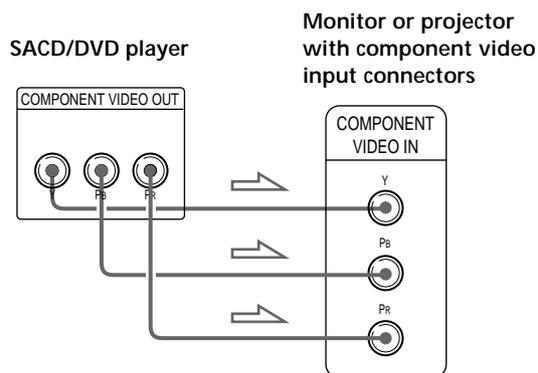
Connecting the power cord

Connect the supplied power cord to the AC IN terminal of the player.



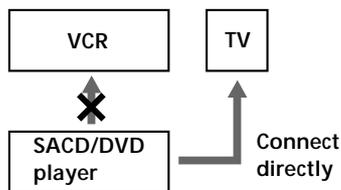
If you connect the player to a monitor or projector having component video input connectors that conform to output signals from the COMPONENT VIDEO OUT (Y, PB, PR) connectors on the player

Connect the component via the COMPONENT VIDEO OUT connectors using three video connecting cords (75 Ω coaxial) (not supplied) of the same kind and length. You will get a better picture.



Notes

- Refer to the instructions supplied with the component to be connected.
- Do not connect this player to a video deck. If you do, noise may appear in the picture.

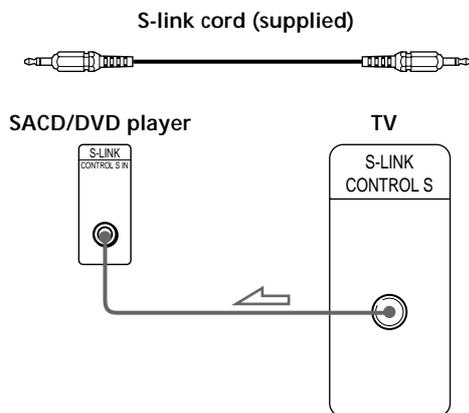


- Depending on the TV or receiver (amplifier), sound distortion may occur because the audio output level from this player is high. In this case, set "AUDIO ATT" in "AUDIO SETUP" to "ON" in the setup display. For details, see page 60.

💡 If your TV has an S-link (control S) connector

You can control the player from the TV.

Connect the TV via the S-LINK/CONTROL S IN connector using the S-link (control S) cord (supplied). Refer to the instructions supplied with the TV to be connected.



Setups for the player

Some setup adjustments are necessary for the player depending on the TV or other components to be connected.

Use the setup display to change the various settings. For details on using the setup display, see page 50.

- **To connect the player to a normal TV**
In the setup display, set "TV TYPE" in "SCREEN SETUP" to "4:3 LETTER BOX" (default setting) or "4:3 PAN SCAN." For details, see page 54.
- **To connect the player to a TV having the WIDE MODE function**
In the setup display, set "TV TYPE" in "SCREEN SETUP" to "16:9/4:3 WIDE MODE." For details, see page 54.
- **To connect the player to a wide-screen TV**
In the setup display, set "TV TYPE" in "SCREEN SETUP" to "16:9/4:3 WIDE MODE." For details, see page 54.
- **To connect the player to a TV that accepts progressive (480p) format signals**
Connect the player to your TV using the COMPONENT VIDEO OUT connectors, and set "COMPONENT OUT" in "CUSTOM SETUP" to "PROGRESSIVE."

Receiver (Amplifier) Hookups

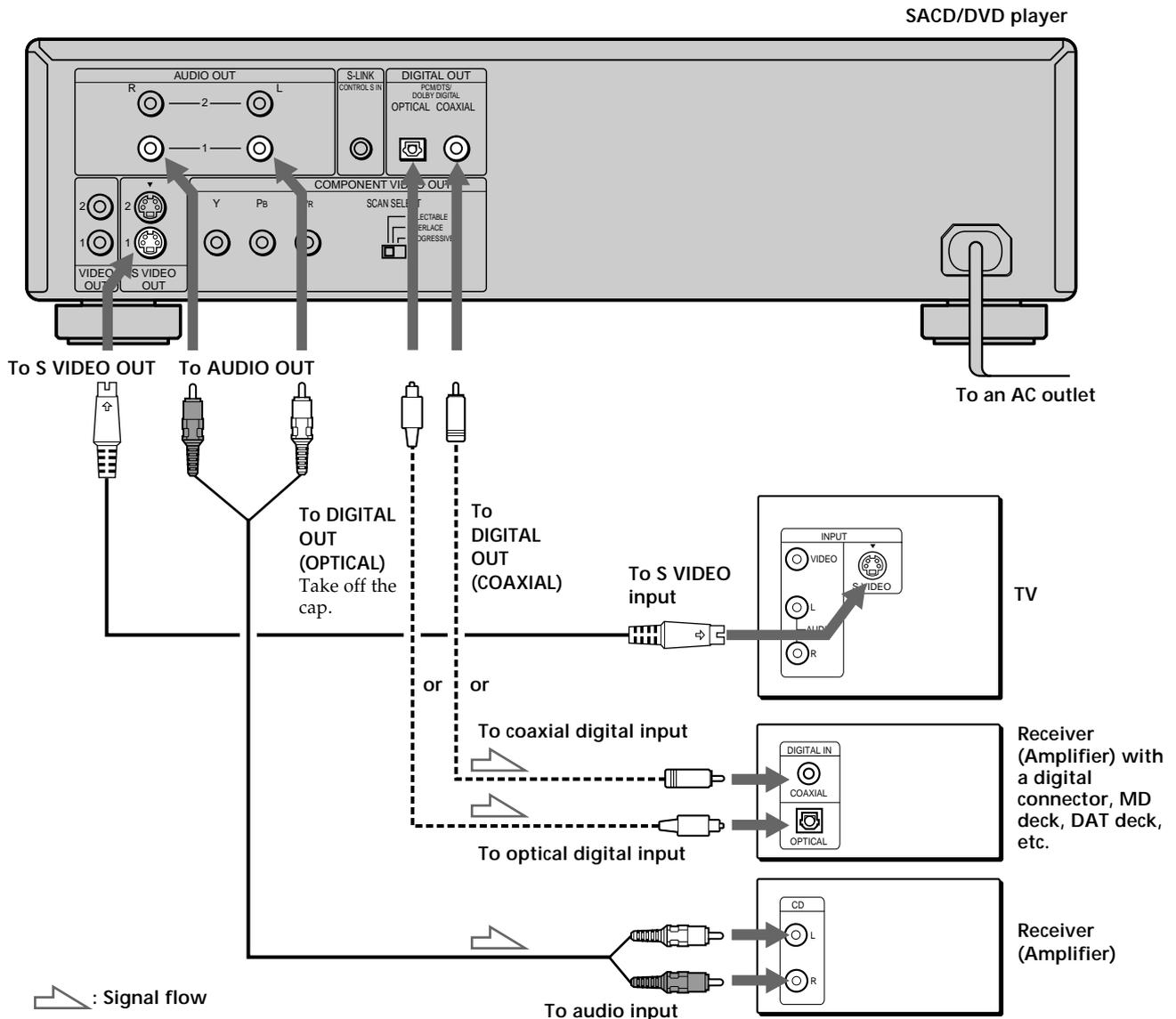
This connection is for listening to the sound through speakers connected to a receiver lacking a built-in DTS or Dolby* Digital decoder. Refer as well to the instructions supplied with the component to be connected.

💡 If you have a digital component with a built-in DTS or Dolby Digital decoder

You can enjoy multi-channel surround sound by connecting the component via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord (not supplied). For details on hookups and settings, see page 14.

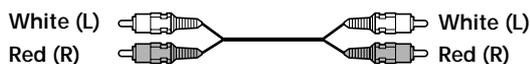
Do not connect the AC outlet to a switched AC power supply such as the AC outlet on a receiver (amplifier). Doing so may cause the Playback Memory, Disc Memo and menu settings to be cancelled when you turn off the receiver.

* 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.



Required cords

Audio connecting cord (not supplied) (1)



S video cord (supplied) (1)



When connecting the cords, be sure to match the color-coded cord to the appropriate jacks on the components: Red (right) to Red and White (left) to White. Be sure to make connections firmly to avoid hum and noise.

If you have a digital component such as a receiver (amplifier) with a digital connector, DAT or MD, connect the component via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord (not supplied).

Optical digital connecting cord (not supplied) (1)



Coaxial digital (75 Ω) connecting cord (not supplied) (1)



Notes

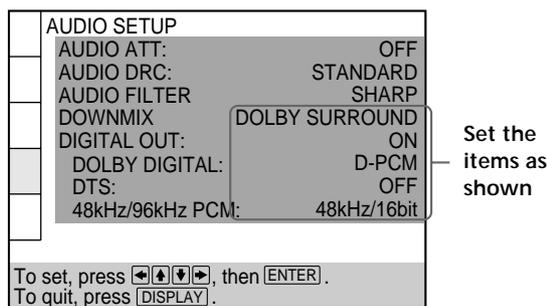
- You cannot enjoy a picture with an S video signal if your TV does not conform to the S video signal. When your TV does not have an S VIDEO input, connect the component via the VIDEO INPUT connector using the audio/video connecting cord (supplied) instead of the S video cord. For details, see page 12.
Refer to the instructions supplied with your TV.
- You cannot make digital audio recordings of discs recorded in multi-channel surround format directly using an MD deck or DAT deck.
- SACD audio signals are not output from the DIGITAL OUT OPTICAL or COAXIAL connectors.

When you have made the connections using an optical or coaxial digital connecting cord, do not set "DOLBY DIGITAL" to "DOLBY DIGITAL," "DTS" to "ON" and "48kHz/96kHz PCM" to "96kHz/24bit." If you do, a loud noise will suddenly come out from the speakers, affecting your ears or causing the speakers to be damaged.

Setups for the player

Some setup adjustments are necessary for the player depending on the components to be connected. Use the setup display to change the various settings. For details on using the setup display, see page 50.

- To listen to the sound through speakers connected to a receiver (amplifier) which has a digital connector and lacks a built-in DTS or Dolby Digital decoder, or to output the sound to a digital component such as a DAT or MD deck
Set the "AUDIO SETUP" items in the setup display (page 60) as shown in the illustration below. These are the default settings.



Note

When you output the signals which do not reproduce the Dolby Surround (Pro Logic) effect from the DIGITAL OUT OPTICAL or COAXIAL connector, set "DOWNMIX" to "NORMAL" in "AUDIO SETUP" in the setup display (page 60).

5.1 Channel Surround Hookups

With DVDs which contain DTS or Dolby Digital sound, you can enjoy the surround sound while producing the effect of being in a movie theater or a concert hall using a digital component with a built-in DTS or Dolby Digital decoder (not supplied). The player outputs the surround sound signals from the DIGITAL OUT OPTICAL and COAXIAL connectors.

Using a receiver (amplifier) having the OPTICAL or COAXIAL connector and 6 speakers, you can enjoy even greater real audio presence in the comfort of your own home.

Required cords

Optical digital connecting cord* (not supplied) (1)



Coaxial digital (75 Ω) connecting cord* (not supplied) (1)



S video cord (supplied) (1)



* Connect the component via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord (not supplied). You do not need to connect both of these cords. See the figure on the next page.

Do not connect the AC outlet to a switched AC power supply such as the AC outlet on a receiver (amplifier). Doing so may cause the Playback Memory, Disc Memo and menu settings to be cancelled when you turn off the receiver.

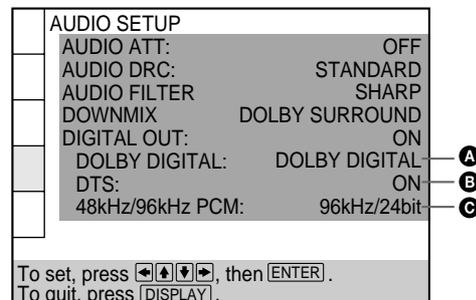
Notes

- Do not connect the power cord to an AC outlet or press the POWER switch before completing all connections.
- Refer to the instructions supplied with the component to be connected.
- The cord connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- SACD audio signals are not output from the DIGITAL OUT OPTICAL or COAXIAL connectors.

Setups for the player

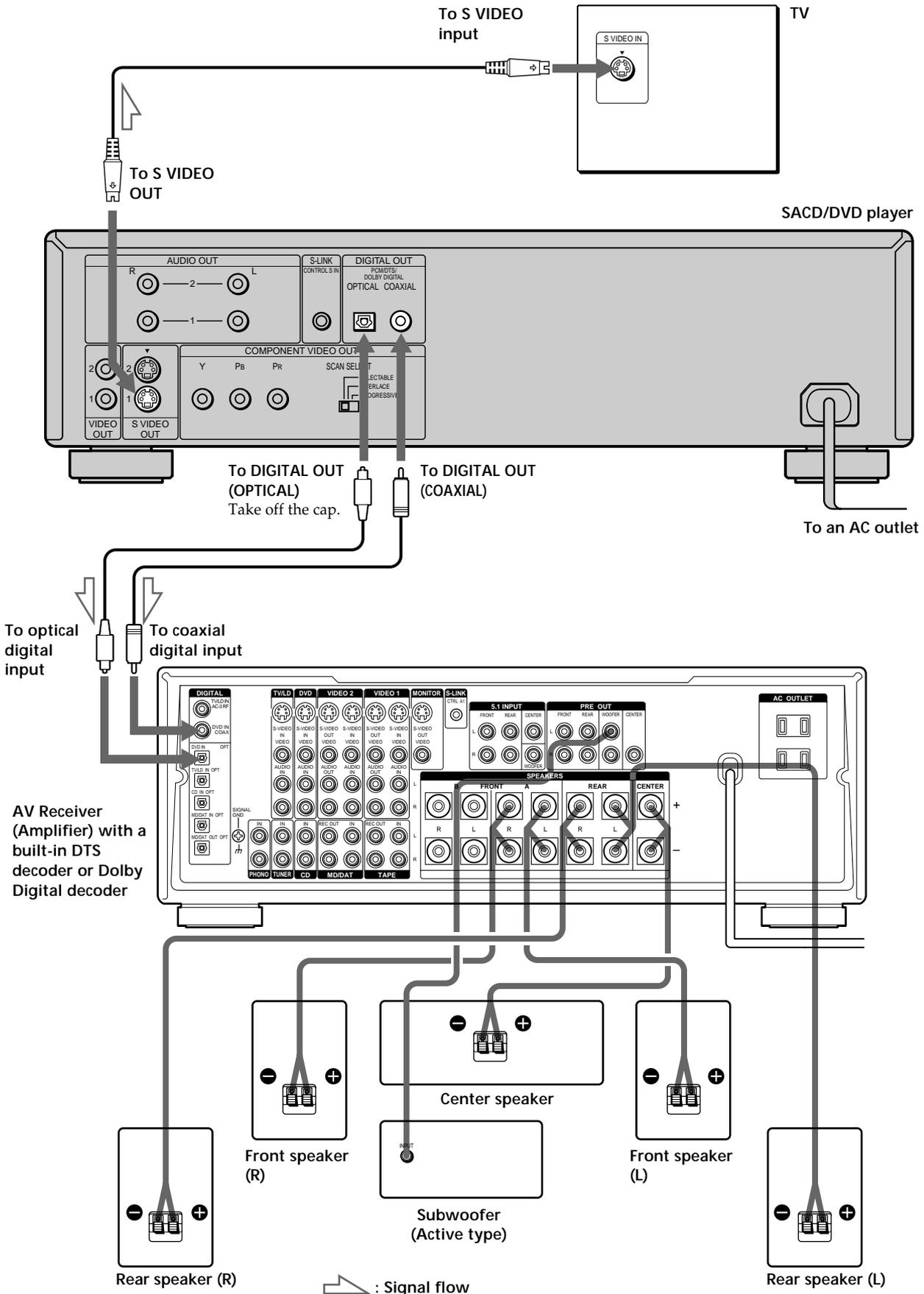
Some setup adjustments are necessary for the player depending on the components to be connected. Use the setup display to change the various settings. For details on using the setup display, see page 50.

- When you connect an audio component with a built-in Dolby Digital decoder **A****
 Set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "DOLBY DIGITAL" to "DOLBY DIGITAL" in the setup display. (page 60, 61)
- When you connect an audio component with a built-in DTS decoder **B****
 Set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "DTS" to "ON" in the setup display. (page 60, 61)
- When you connect an audio component that accept the 96kHz/24bit audio signal **C****
 Set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "48kHz/96kHz PCM" to "96kHz/24bit" in the setup display. (page 60)



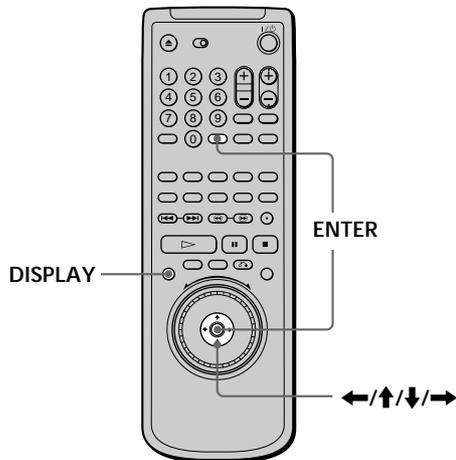
Notes

- When you do not connect an audio component with a built-in Dolby Digital decoder, do not set "DOLBY DIGITAL" to "DOLBY DIGITAL."
- When you do not connect an audio component with a built-in DTS decoder, do not set "DTS" to "ON."
- When you do not connect an audio component that cannot accept the 96kHz/24bit audio signal, do not set "48kHz/96kHz PCM" to "96kHz/24bit."



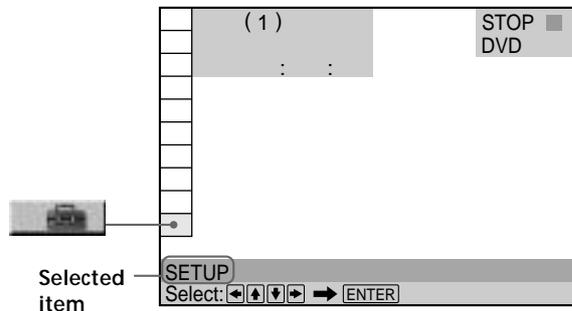
Selecting the Language for the On-Screen Display

You can select the language for the setup display, the Control Menu display or the messages displayed on the screen. The default setting is "ENGLISH."



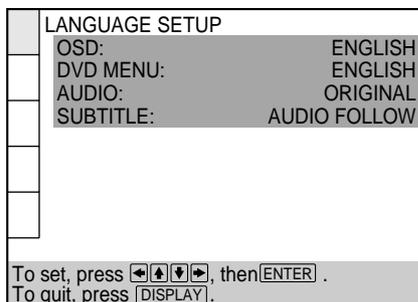
- 1 When the player is in stop mode, press DISPLAY and select "SETUP" using \uparrow/\downarrow .

The on-screen menu items are different depending on whether there is a disc in the player or not.

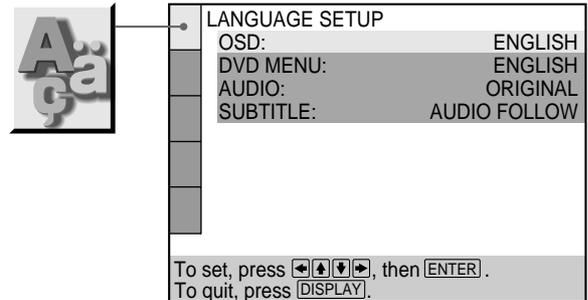


- 2 Press ENTER.

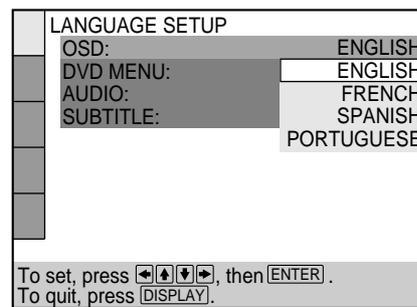
The setup display appears on the TV screen.



- 3 Select "LANGUAGE SETUP" using \uparrow/\downarrow , and then press ENTER.



- 4 Select "OSD" using \uparrow/\downarrow , then press \rightarrow or ENTER. The languages you can select are displayed.



- 5 Select the desired language using \uparrow/\downarrow , then press ENTER.



- 6 Press DISPLAY.

The setup display disappears.

- 7 Press DISPLAY repeatedly to turn off the on-screen menu.

To return to the previous screen

Press RETURN.

To quit while making a selection

Press DISPLAY.

Note

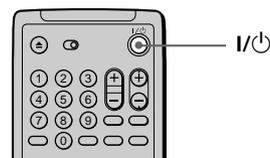
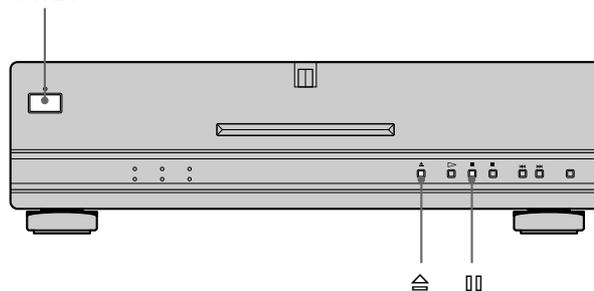
The languages you can select are the ones displayed in step 4.
For details, see page 53.

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

POWER

- 1 Press POWER on the player, then press I/⏻ 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

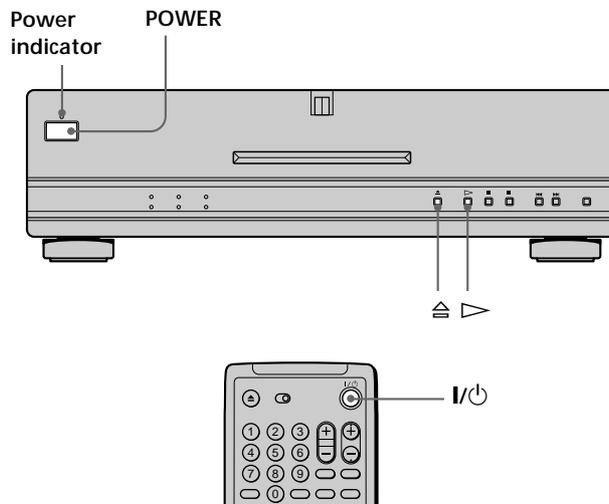
When there is no disc in the player, press and hold on the player for more than two seconds. You will hear two beeps and the Sound Feedback function is turned off.

Playing Discs

This chapter describes how to play a DVD/SACD/CD/VIDEO CD.

Playing Discs

Depending on the DVD or VIDEO CD, some operations may be different or restricted. Refer to the instructions supplied with your disc.



1 Turn on your TV.

Turn on the TV and select the video input so that you can view the pictures from this player.

When using a receiver (amplifier)

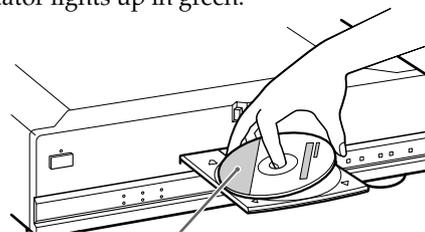
Turn on the receiver (amplifier) and select the appropriate position so that you can listen to the sound from this player.

2 Press POWER to turn on the player.

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

3 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

4 Press .

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

After following Step 4

■ When playing a DVD

A DVD menu or title menu may appear on the TV screen (see page 24).

■ When playing a VIDEO CD

Depending on the VIDEO CD, a menu may appear on the TV screen. You can play the disc interactively by following the instructions on the menu. (PBC Playback, see page 25.)

To turn on the player

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

Then press **I/⏻** 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/⏻** on the remote. The player enters standby mode and the power indicator lights up in red.

To disconnect the power of the player, press POWER on the player.

Notes on playing DTS sound tracks on a CD

- 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 connectors even if "DTS" in "AUDIO SETUP" is set to "OFF" in the setup display, and may affect your ears or cause your speakers to be damaged.
- Set the sound to "STEREO" when you play DTS sound tracks on a CD. (See "Changing the Sound" on page 35.) If you set the sound to "1/L" or "2/R", no sound will come from the DIGITAL OUT OPTICAL and COAXIAL connectors.
- If you play a CD with a DTS sound track, a loud noise may come out from the AUDIO OUT connectors, affecting your ears or causing the speakers to be damaged.

Notes on playing DTS sound tracks on a DVD

The signals of the DTS sound tracks are output from the DIGITAL OUT OPTICAL and COAXIAL connectors only. No sound will be output from the AUDIO OUT connectors.

- If the player is connected to an audio component lacking a built-in DTS decoder, do not set "DTS" in "DIGITAL OUT" to "ON" in the setup display. Otherwise, when you play the DTS sound track, a loud noise will come out from the speakers, affecting your ears or causing the speakers to be damaged.
- When you set "DTS" in "AUDIO SETUP" to "OFF", no sound will come out from the DIGITAL OUT OPTICAL and COAXIAL connectors even if you play DTS sound tracks on DVDs.

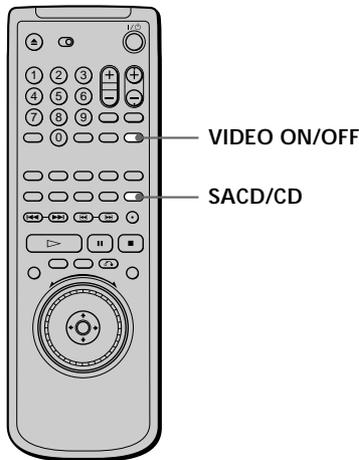
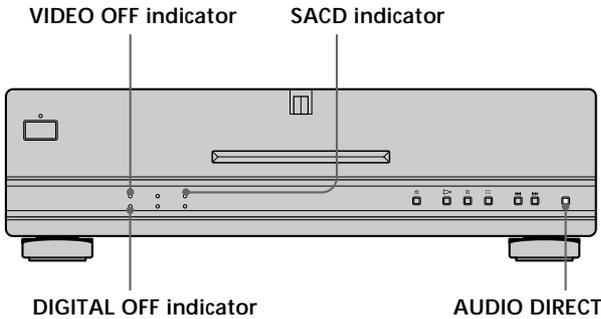
Notes

- If you leave the player or the remote in pause or stop mode for 15 minutes, the screen saver image appears automatically. It will also appear if you play back a CD for more than 15 minutes. To make the screen saver image go away, press **▷**. (If you want to set the screen saver function to off, see page 54.)
- While playing a disc, do not turn off the player by pressing POWER. Doing so may cancel the settings of the menu. 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.

Playing Discs

Achieving high quality sound reproduction

The following settings enable you to play audio CDs, 96 kHz DVDs, and SACDs at the highest possible sound quality.



By pressing AUDIO DIRECT on the player when it is stopped, the video and digital audio output can be switched on or off. When the playback audio signal is set to be output from the digital connectors, this button will cut the video signal. By setting the digital audio signal to off, this button reduces the effect of the video and digital circuitry on the audio signal. When no video signal is output from the player, the VIDEO OFF indicator lights up, and when the digital audio or video signal is cut, the DIGITAL OFF indicator lights up.

By pressing the VIDEO ON/OFF button on the remote when the player is stopped, the video output can be switched on or off. When the video output is set to off, the effect of the digital and analog video circuitry on the audio signal is cut to a minimum. When no video signal output from the player, the VIDEO OFF indicator lights up on the player.

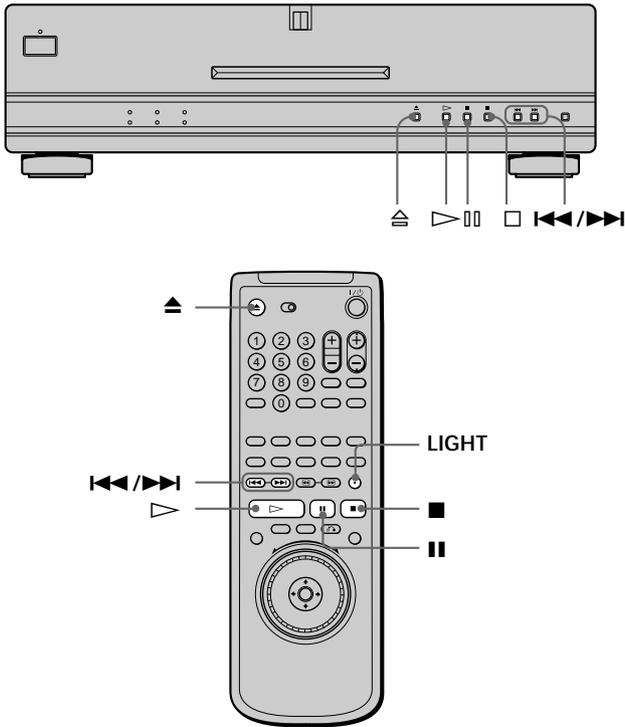
When playing SACDs

When you are playing an SACD, the SACD indicator on the player lights up. In order to select one of the layers on a hybrid SACD (page 6), stop the player and press the SACD/CD button on the remote. The SACD indicator on the player turns off when a CD layer is played.

Notes

- When DIGITAL OUT is set to OFF in AUDIO SETUP, you cannot turn the digital audio output back on using the AUDIO DIRECT button.
- SACD signals are not output from the DIGITAL OUT OPTICAL or COAXIAL connectors.

Additional operations



To	Operation
Stop	Press ■
Pause	Press
Resume play after pause	Press 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 ▲

You can play discs in various modes such as Program Play using the on-screen menu (Control Menu). For Control Menu operations, see page 28.

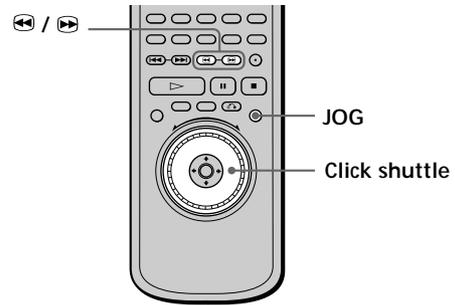
To light up the buttons on the remote

When you press LIGHT on the remote, ▷, ■, || and DISPLAY light up. If you do not press any buttons for a short while, the buttons will automatically turn off. Note, however, that using the LIGHT function will shorten the battery life of the remote.

Playing at Various Speeds/ Frame by Frame



Using the click shuttle and the JOG button/indicator, you can play back a DVD/SACD/CD/VIDEO CD at various speeds or frame by frame. Each time you press JOG, it changes between shuttle mode and jog mode.



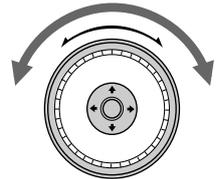
To change the playback speed (Shuttle mode)

Turn the click shuttle. The playback speed changes depending on the turning direction and angle as follows:

When you play back a DVD

During playback

- FF2 ►► Fast forward (about 30 times the normal speed)
- ↕
- FF1 ►► Fast forward (about 10 times the normal speed)
- ↕
- ×2 ► (about twice the normal speed)
- ↕
- PLAY ► (normal speed)
- ↕
- ×2 ◀ (about twice the normal speed)
- ↕
- FR1 ◀◀ Fast rewind (about 10 times the normal speed)
- ↕
- FR2 ◀◀ Fast rewind (about 30 times the normal speed)



If you turn the click shuttle quickly, the playback speed goes to FF2 ►► or FR2 ◀◀ at once.

During pause

- SLOW1 ►► Slow (playback direction)
- ↕
- SLOW2 ►► Slow (playback direction – slower than “SLOW1 ►►”)
- ↕
- PAUSE || Pause
- ↕
- SLOW2 ◀◀ Slow (opposite direction – slower than “SLOW1 ◀◀”)
- ↕
- SLOW1 ◀◀ Slow (opposite direction)

Playing at Various Speeds/Frame by Frame

When you play back a SACD/CD/VIDEO CD

During playback

FF2▶▶ Fast forward (faster than "FF1▶▶")

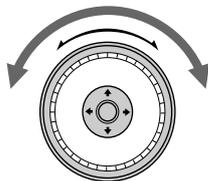
↕
FF1▶▶ Fast forward

↕
×2▶ (about twice the normal speed)*

↕
PLAY▶ (normal speed)

↕
FR1◀◀ Fast rewind

↕
FR2◀◀ Fast rewind(faster than "FR1◀◀")



* SACD/CD Only

If you turn the click shuttle quickly, the playback speed goes to FF2▶▶ or FR2◀◀ at once.

During pause (VIDEO CD only)

SLOW1▶▶ Slow (playback direction)

↕
SLOW2▶▶ Slow

(playback direction – slower than "SLOW1▶▶")

↕
PAUSE■ Pause

To return to continuous play

Press ▷.

 To search for a picture using the remote

Keep pressing  or  on the remote. The playback speed is the same as FR1◀◀ or FF1▶▶ when using the click shuttle.

Note

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

To play the disc frame by frame (Jog mode)

1 Press JOG.

JOG lights up during jog mode.

2 Turn the click shuttle.

Depending on the turning speed, playback goes to frame-by-frame playback in the direction that the click shuttle is turned. If you turn the click shuttle at a constant speed for a while, the playback speed goes to slow or normal.

To return to Continuous Play

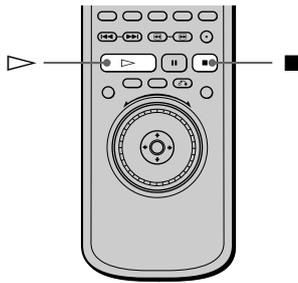
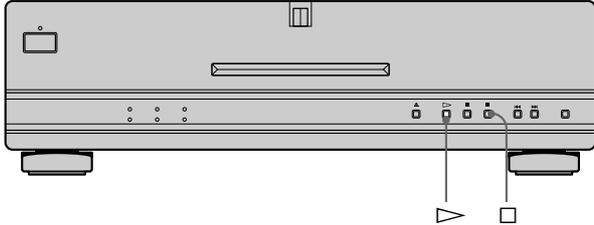
Press ▷.

Notes

- The JOG indicator shows the mode of the corresponding click shuttle.
- If you don't operate the click shuttle for about 20 seconds after pressing JOG, the click shuttle returns to shuttle mode.

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

The player remembers the point where you stopped the disc, and when “RESUME” appears on the front panel display, you can resume playback from that point. As long as you do not open the disc tray, Resume Play will work even if the player enters standby mode by pressing  on the remote.



Notes

- Resume Play may not be available on some DVDs.
- Resume Play is not available in Shuffle or Program Play mode.
- Depending on where you stopped the disc, the player may resume playback from a different point.
- The point where you stopped playing is cleared when:
 - you open the disc tray
 - you turn the power off by pressing POWER on the player
 - you change the play mode
 - you start playback after selecting a title, chapter or track
 - you change the settings in the setup display

- 1 While playing a disc, press  to stop playback.**
“RESUME” appears on the front panel display and “Disc will restart from current point. To start from beginning, press  again.” appears on the TV screen.
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.

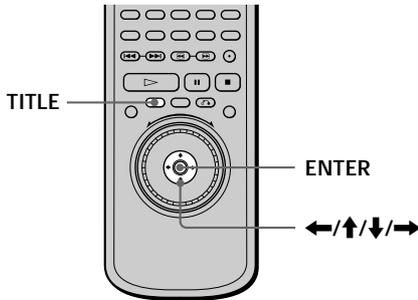
 **To play from the beginning of the disc**
When the playing time appears on the front panel display before you start playing, press  to reset the playing time, then press .

Using the DVD's Menu

Some DVDs have a title menu or a DVD menu that is provided with DVDs only.

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.



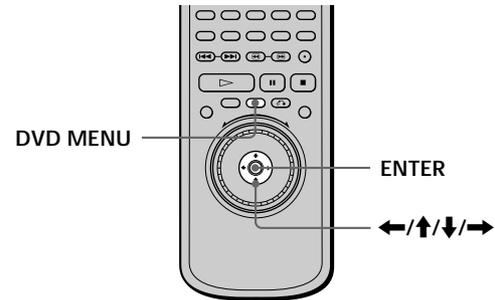
- 1 Press TITLE.**
The title menu appears on the TV screen. The contents of the menu vary from disc to disc.
- 2 Press $\leftarrow/\uparrow/\downarrow/\rightarrow$ to select the title you want to play.**
Depending on the disc, you can use the number buttons to select the title.
- 3 Press ENTER.**
The player starts playing the selected title.

Notes

- On some DVDs, you may not be able to select the title.
- On some DVDs, a "title menu" may simply be called a "menu" or "title" in the instructions supplied with the disc. "Press ENTER." may also be expressed as "Press SELECT."

Using the DVD menu

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



- 1 Press DVD MENU.**
The DVD menu appears on the TV screen. The contents of the menu vary from disc to disc.
- 2 Press $\leftarrow/\uparrow/\downarrow/\rightarrow$ to select the item you want to change.**
Depending on the disc, you can use the number buttons to select the item.
- 3 To change other items, repeat Step 2.**
- 4 Press ENTER.**

 **If you want to select the language for the DVD menu**
Change the setting using "DVD MENU" in "LANGUAGE SETUP" in the setup display. For details, see page 53.

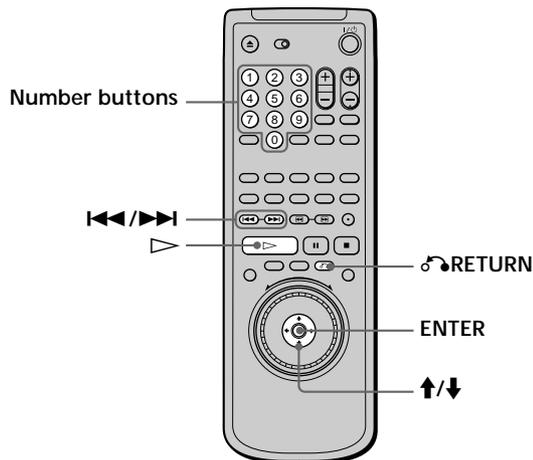
Note

Depending on the DVD, a "DVD menu" may simply be called a "menu" in the instructions supplied with the disc.

Playing VIDEO CDs with PBC Functions (PBC Playback)



When playing VIDEO CDs with PBC (Play Back Control) functions (Ver. 2.0 discs), 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. On this player, you can use the number buttons, ENTER, ◀▶, ⏮, ⏭, ⏪, ⏩ and ⏹RETURN during PBC Playback.



To go back to the menu

Press ⏹RETURN, ⏮, or ⏭.

💡 To cancel PBC playback of a VIDEO CD with PBC functions and play the disc in continuous play mode

There are two ways.

- Before you start playing, select the track you want using ⏮ or ⏭, then press ENTER or ▷.
 - Before you start playing, select the track number using the number buttons on the remote, then press ENTER or ▷.
- “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

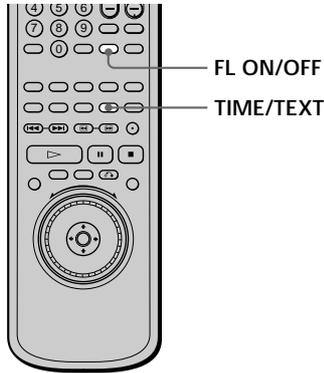
Depending on the VIDEO CD, “Press ENTER” in Step 3 may be expressed as “Press SELECT” in the instructions supplied with the disc. In this case, press ▷.

- 1 Start playing a VIDEO CD with PBC functions by following Steps 1 to 4 in “Playing Discs” on page 18.**
- 2 Select the item number you want.**
Press ⏮/⏭ to select the item number.
You can also select the item number with the number buttons on the remote.
- 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.

Using the Front Panel Display DVD VIDEO CD SACD CD

You can check information about the disc, such as the total number of titles or tracks or remaining time, using the front panel display. This display can be turned on or off using the FL ON/OFF button.

Playing Discs



Turning the front panel display on or off

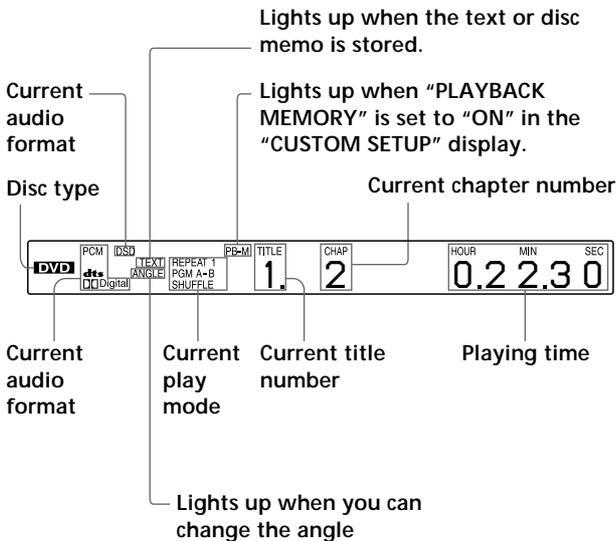
You can turn the front panel display on or off using the remote. Each time you press the FL ON/OFF button, the display turns on and off. When the display is off, the FL OFF indicator on the player lights up.

You can adjust the brightness of the front panel display. You can adjust the brightness of the front panel display or set it to turn off automatically by selecting DIMMER in CUSTOM SETUP.

Note
The FL ON/OFF button does not work when DIMMER is set to OFF in CUSTOM SETUP.

When playing back a DVD DVD

Displaying information while playing the disc



Checking the remaining time

Press TIME/TEXT.

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

Playing time and number of the current chapter



Remaining time of the current chapter



Playing time and number of the current title



Remaining time of the current title



Text or Disc Memo



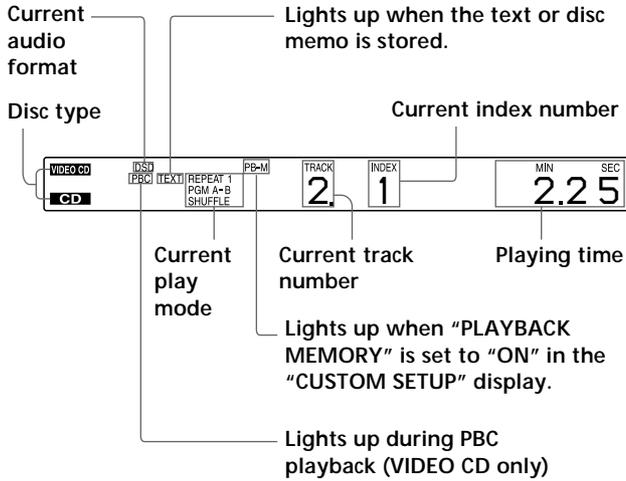
Notes

- On some DVDs, the chapter number or time may not appear or you may not be able to change the front panel display.
- During Shuffle Play or Program Play, the playing time of the title and the remaining time of the title are not displayed.

When playing back a SACD/CD/VIDEO CD



Displaying information while playing a disc



When playing VIDEO CDs with PBC functions

The current scene number is displayed instead of the current track number and the current index number. In this case, the front panel display does not change when you press TIME/TEXT. If TEXT is recorded on the disc, the front panel display changes to the Text display when you press TIME/TEXT (see page 32).

Checking the remaining time

Press TIME/TEXT.

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

Playing time and current track number



Remaining time of the current track

Press TIME/TEXT



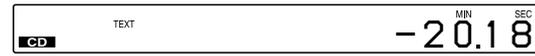
Playing time of the disc

Press TIME/TEXT



Remaining time of the disc

Press TIME/TEXT



Text or Disc Memo

Press TIME/TEXT



Press TIME/TEXT

Note

While you are doing Shuffle Play, or Program Play, the playing time of the disc and the remaining time of the disc are not displayed.

Using Various Functions with the Control Menu

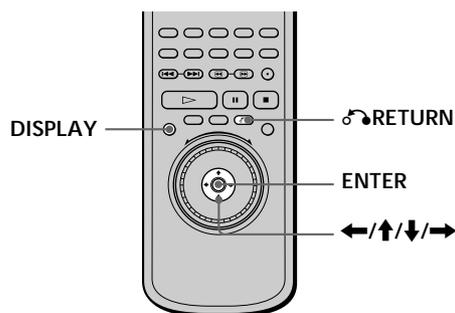
This chapter describes how to play discs in various modes and how to use the convenient features of the on-screen menu (Control Menu).

Using the Control Menu Display

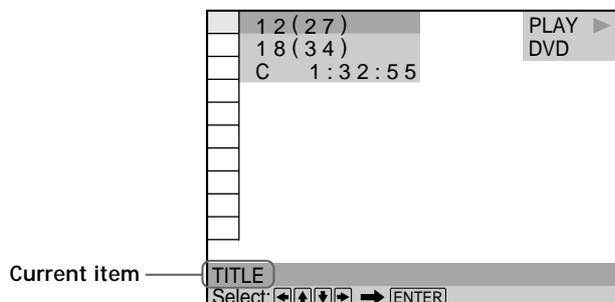
Using the Control Menu display, you can select the starting point, play scenes in any order you like, change the viewing angles, make video control settings, and other such operations.

The possible operations are different depending on the kind of disc.

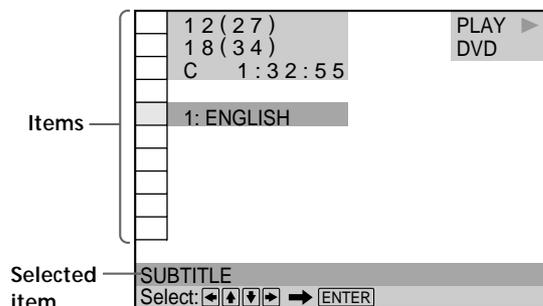
For details on each Control Menu display item, see pages 30 to 49.



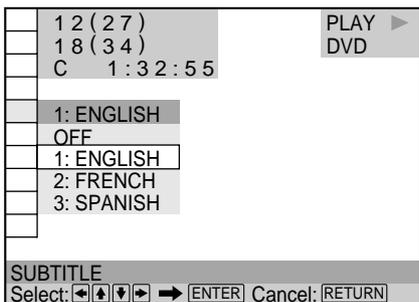
- 1 Press DISPLAY to show the Control Menu display on the TV screen.



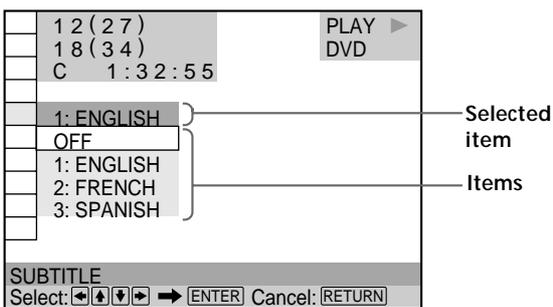
- 2 Select the item you want using \uparrow/\downarrow .



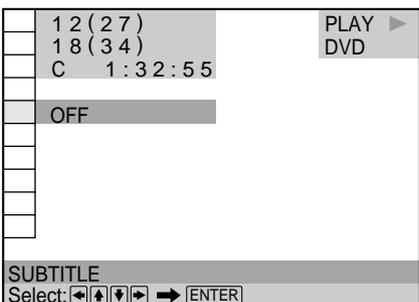
3 Press ENTER.



4 Select the item you want using ↑/↓.



5 Press ENTER.

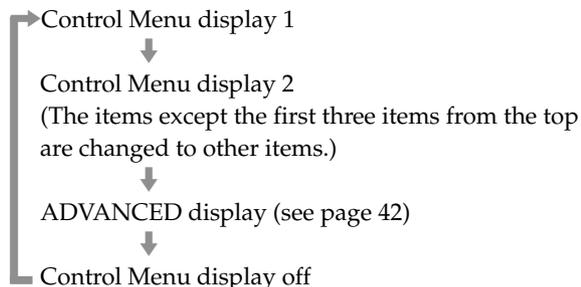


To cancel while making a selection

Press ⏪ RETURN.

To display other items

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



The Control Menu display items are different depending on the disc.

💡 You can select some items directly

Some items can be selected by pressing the corresponding button on the remote. In this case, only the item you selected is displayed. For instructions on using the remote, see the pages of each relevant item.

Note

Some Control Menu display items require operations other than selecting the setting. For details on these items, see the relevant pages.

Control Menu Item List



**TITLE (DVD only) (page 31)/
SCENE (VIDEO CD during PBC playback
only) (page 31)/**

TRACK (VIDEO CD only) (page 31)



**CHAPTER (DVD only) (page 31)/
INDEX (VIDEO CD only) (page 31)**



TRACK (SACD/CD only) (page 31)



INDEX (SACD/CD only) (page 31)

You can search for a point on the DVD by selecting the title, chapter, track, index or scene.



TIME/MEMO (pages 32, 33, 34)



TIME/TEXT (pages 32, 33, 34)

You can check the playing time and remaining time of the current title, chapter, track and the total playing time or remaining time of the disc.

You can also search for a scene by inputting the time code. You can check the DVD TEXT, SACD TEXT or CD TEXT of the disc on the TV screen and the front panel display. When the disc is a VIDEO CD or the DVD TEXT/SACD TEXT/CD TEXT is not recorded on the disc, you can label the disc using the Disc Memo function.



AUDIO (page 35)

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 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.



SUBTITLE (DVD only) (page 37)

With DVDs on which multilingual subtitles are recorded, you can change the subtitle language whenever you want while playing the DVD, and turn it on or off whenever you want.



ANGLE (DVD only) (page 37)

With DVDs on which various angles (multi-angles) are recorded, you can change the angle of the scene.



**VIDEO CONTROL (DVD and VIDEO CD
only) (page 38)**

You can make detailed adjustments to the playback image and store up to 5 different setting patterns in the player's memory. This is useful when you want to store certain settings for different genres such as movies or concerts. You can also store individual settings in the player's memory for up to 300 discs (playback memory). The player can be programmed to automatically recall the settings for a particular disc when that disc is played.



ADVANCED (DVD only) (page 42)

You can check play information about the bit rate or the position where the disc is being played (layer).



CUSTOM PARENTAL CONTROL (page 43)

Using a registered password, you can set playback restrictions for a desired disc.

The same password is used for both Parental Control (page 57) and Custom Parental Control.



SETUP (page 50)

Using the setup display, you can do the initial setup, adjust the picture and sound and set the various outputs. You can also set a language for the subtitles and the setup display, limit playback by children, and so on. For details about the setup display, see page 50, 51.



PROGRAM (page 45)

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



SHUFFLE (page 47)

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.



REPEAT (page 48)

You can play all the titles/tracks on a disc or a single title/chapter/track repeatedly.



A-B REPEAT (page 49)

You can play a specific portion of a title, chapter, or track repeatedly.

Searching for a Title/Chapter/Track/Index/Scene

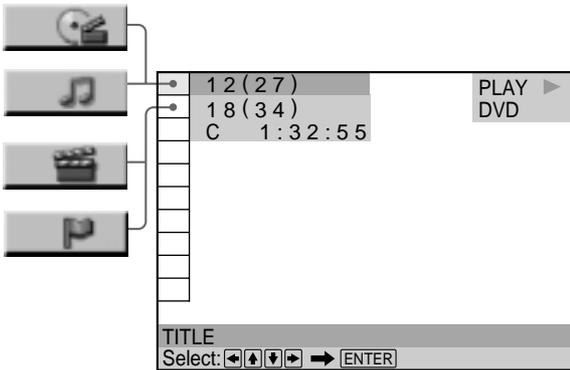


You can search the disc by title, chapter, track, index or scene.

Select "TITLE," "CHAPTER," "TRACK," "INDEX" or "SCENE" after pressing DISPLAY.

When you play back a DVD, "TITLE" and "CHAPTER" are displayed.

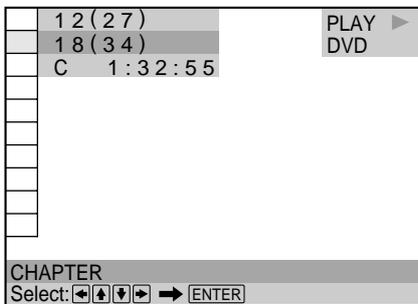
When you play back a VIDEO CD/CD, "TRACK" and "INDEX" are displayed. When you play back a VIDEO CD with PBC functions, "SCENE" is displayed.



1 Select "TITLE," "CHAPTER," "TRACK," "INDEX" or "SCENE" using **↑/↓**.

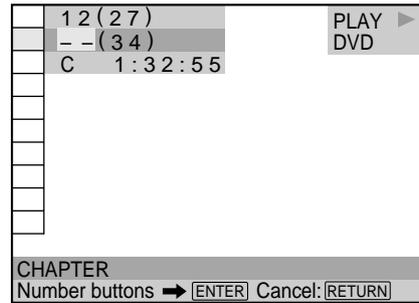
"** (**)" is highlighted (** refers to a number).

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



2 Press **→** or **ENTER**.

"** (**)" changes to "— — (**)".



3 Select the number of the title, chapter, track, index or scene you want to search for using the number buttons or **↑/↓**, then press **ENTER**.

The player starts playback at the selected number.

To cancel the number, press **CLEAR** before pressing **ENTER**.

To cancel while making a selection

Press **↶**RETURN.

Notes

- The title, chapter or track number displayed is the same number recorded on the disc.
- The index numbers are not displayed during PBC playback of VIDEO CDs.

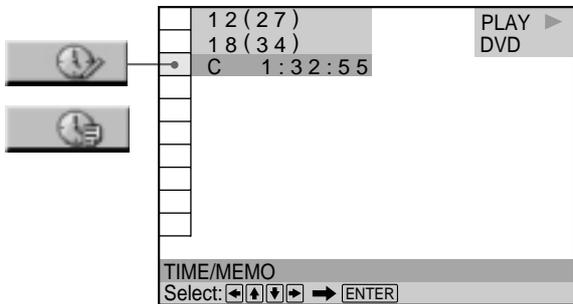
Checking the Playing Time and Remaining Time



You can check the playing time and remaining time of the current title, chapter or track and the total playing time or remaining time of the disc.

Press DISPLAY. Then press TIME/TEXT on the remote to change the time information.

You can also check the DVD TEXT, CD TEXT or Disc Memo, and label the disc. See page 26.



When playing a DVD

■ TIME/MEMO or TIME/TEXT

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

When playing a VIDEO CD (during PBC playback)

■ TIME/MEMO

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

When playing a VIDEO CD (in continuous play) or SACD/CD

■ TIME/MEMO or TIME/TEXT

- 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

You can select "TIME/MEMO" or "TIME/TEXT" directly. Press TIME/TEXT on the remote. Each time you press the button, the time information changes.

Note

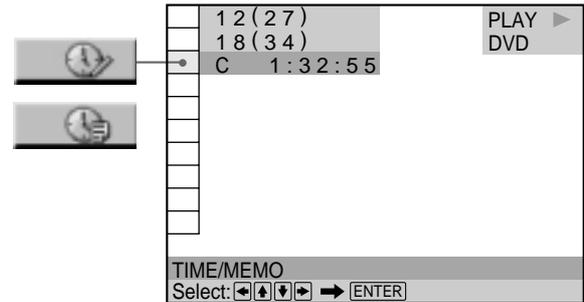
The displayed time may vary depending on the play mode.

Selecting a Starting Point Using the Time Code

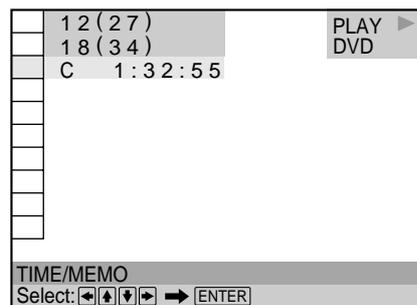
You can search for a starting point by inputting the time code.

Select "TIME/MEMO" or "TIME/TEXT" after pressing DISPLAY.

The time code corresponds to the approximate actual playing time. For example, to search for a scene 2 hours 10 minutes 20 seconds past the beginning, input 2:10:20.

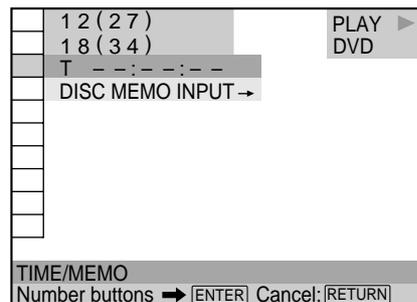


- 1 Select "C * * * * * " (playing time of the current chapter) when playing a DVD.



- 2 Press \rightarrow or ENTER.

Time code changes to "T - - : - - : - -".



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

The player starts playback at the selected time code.
To cancel the number, press CLEAR before pressing ENTER.

To cancel while making a selection

Press  RETURN.

Note

When you input the time code, input the playing time of the title, not the chapter or track time.

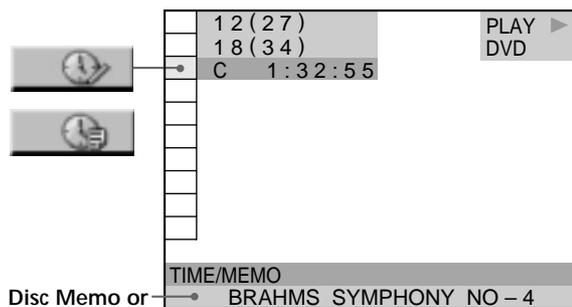
Labeling the Disc



You can label discs so that the label appears on your TV screen and the front panel display when you play the disc. If the disc already has DVD TEXT, SACD TEXT or CD TEXT recorded on it, then this information will appear instead.

Press DISPLAY. "TIME/MEMO" appears. Press TIME/TEXT on the remote until the Disc Memo appears at the bottom of the display. If the disc does not contain a label, "NO TEXT" is displayed. Follow the steps below to label a disc.

If the disc has DVD TEXT or CD TEXT already recorded on it, "TIME/TEXT" appears instead. Press TIME/TEXT on the remote until the information is displayed at the bottom of the display. You cannot change this information.



Disc Memo or DVD/CD TEXT

 You can select "TIME/MEMO" or "TIME/TEXT" directly. Press TIME/TEXT on the remote. To display DVD/CD TEXT or Disc Memo, press TIME/TEXT until DVD/CD TEXT or Disc Memo is displayed.

 You can view the entire DVD/CD TEXT or Disc Memo recorded on the disc. DVD/CD TEXT or Disc Memo is scrolled on the front panel display.

Note

This player can only display the first level of DVD/CD TEXT information.

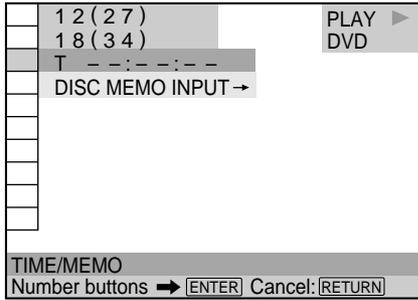
Labeling discs (Disc Memo)

When DVD TEXT or CD TEXT is not recorded on the disc, you can put a personal title on the disc by labeling it on the on-screen display. You can input up to 20 characters per disc.

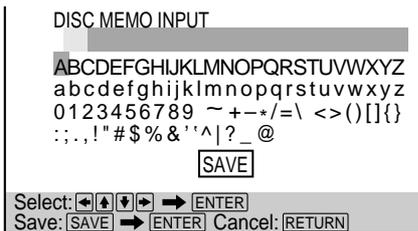
You can also have the player display the Disc Memo each time you select the disc. The Disc Memo can be anything you like, such as a title, musician's name, category or date of purchase.

Labeling the Disc

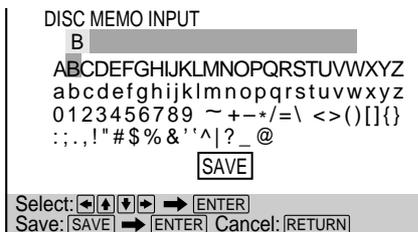
- 1 Select "TIME/MEMO" and press ENTER.
"DISC MEMO INPUT" appears.



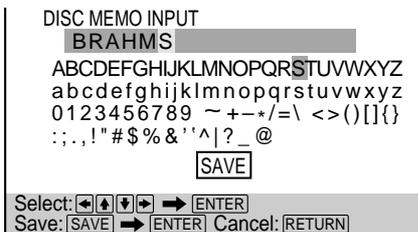
- 2 Select "DISC MEMO INPUT" and press ENTER.
The DISC MEMO INPUT display appears.



- 3 Select a character by pressing ←/↑/↓/→.
The selected character changes color.



- 4 Press ENTER.



- 5 Repeat steps 3 and 4 to input other characters.

- 6 When you have entered all the characters for the Disc Memo, select [SAVE] by pressing ←/↑/↓/→ and then press ENTER.
The Disc Memo is stored.

To correct the characters

- To erase the characters:
 - 1 Move the cursor to the character you want to erase by pressing ◀ or ▶.
 - 2 Press CLEAR.
- To insert or overwrite the characters:
 - 1 Move the cursor to the character you want to correct by pressing ◀ or ▶.
 - 2 Select the correct character by pressing ←/↑/↓/→ or by turning the click shuttle.
 - 3 To insert the character, press ENTER.
To overwrite, don't press ENTER but move the cursor by pressing ◀ or ▶.

Notes

- Do not turn off the player by pressing POWER. 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.
- You can label up to 300 discs. When you have the player store over 300 discs in memory, each new Disc Memo erases the oldest Disc Memo from those first stored.

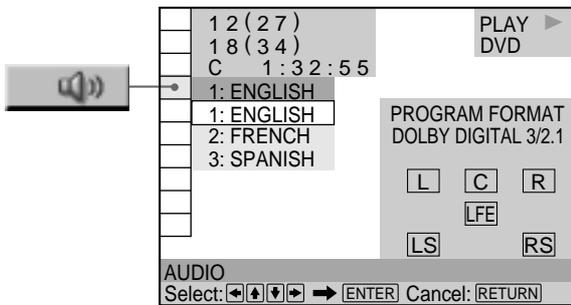
Changing the Sound

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 multiplex 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, with a disc containing a song, the right channel may output the vocals and the left channel may output the instrumental. If you only want to hear the instrumental, you can select the left channel and hear it from both speakers.

Select "AUDIO" after pressing DISPLAY.



■ AUDIO

When playing a DVD

Select the language. The languages you can select are different depending on the DVD. When 4 digits are displayed, they represent the language code. Select the language code from the list on page 73.

When the same language is displayed two or more times, the DVD is recorded in multiple audio formats. The current audio format is shown on the "PROGRAM FORMAT" display.

When playing a VIDEO CD or a 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)

You can select "AUDIO" directly

Press AUDIO on the remote. Each time you press the button, the item changes.

Notes

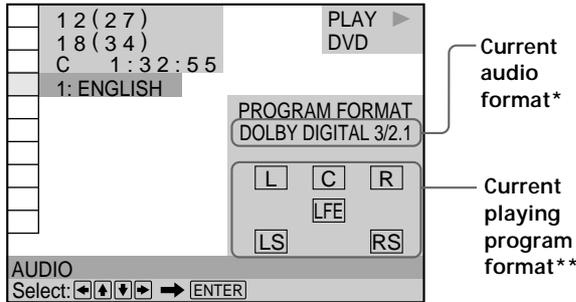
- You cannot change the sound for SACDs.
- Depending on the DVD, you may not be able to change the languages even if multilingual tracks are recorded on the DVD.
- While playing the CD/VIDEO CD, standard stereo playback will be resumed when:
 - you open the disc tray
 - the player enters standby mode by pressing I/⏻ on the remote
 - you turn the power off by pressing POWER on the player
- While playing the DVD, the sound may change automatically.
- If "DTS" is set to "OFF" in "AUDIO SETUP," the DTS track selection option will not appear on the screen even if the disc contains DTS tracks.

Changing the Sound

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 be different.

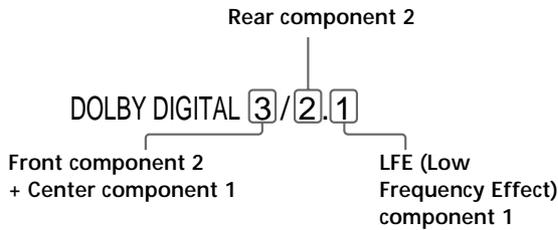


Current audio format*

Current playing program format**

* "PCM," "DTS" or "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:

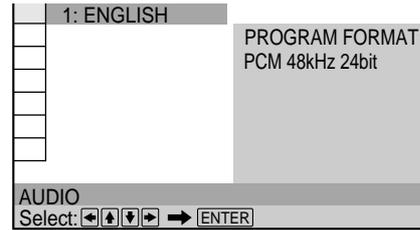


** The letters in the program format display mean the following:

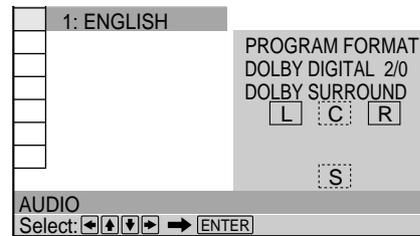
- L: Front (left)
- R: Front (right)
- C: Center (monaural)
- LS: Rear (left)
- RS: Rear (right)
- S: Rear (monaural) - the rear component of the Dolby Surround processed stereo signal and the Dolby Digital Signal.
- LFE: LFE (Low Frequency Effect)

The display examples are as follows:

- PCM (stereo)

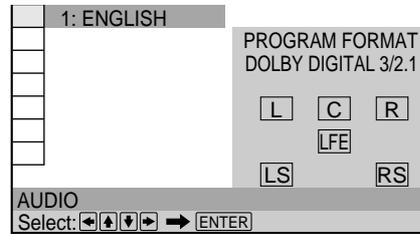


- Dolby Surround



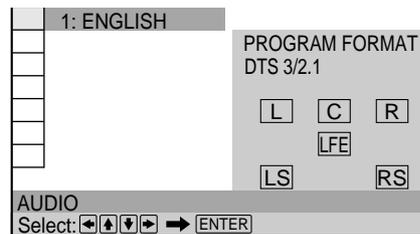
- Dolby Digital 5.1ch

"LFE" is always enclosed in a solid line regardless of the LFE signal component being output.



- DTS

"LFE" is always enclosed in a solid line regardless of the LFE signal component being output.



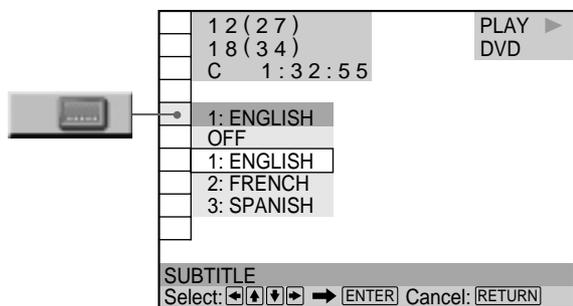
Displaying the Subtitles

DVD

With DVDs on which subtitles are recorded, you can turn the subtitles on and off whenever you want while playing the DVD.

With DVDs on which multilingual subtitles are recorded, you can change the subtitle language whenever you want while playing the DVD, 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.

Select "SUBTITLE" after pressing DISPLAY.



■ SUBTITLE

Select the language. The languages you can select are different depending on the DVD. When 4 digits are displayed, they indicate the language code. Select the language code from the list on page 73.

 You can select "SUBTITLE" directly

Press SUBTITLE on the remote. Each time you press the button, the item changes.

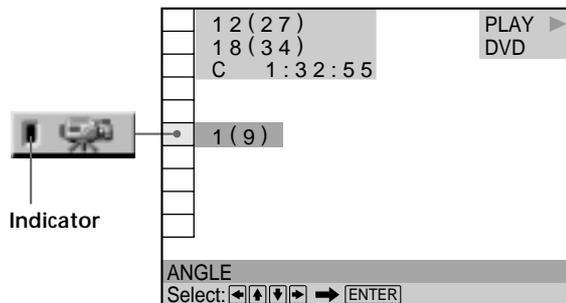
Notes

- When playing a DVD on which no subtitles are recorded, no subtitles appear.
- Depending on the DVD, you may not be able to turn the subtitles on even if they are recorded on the DVD.
- Depending on the DVD, you may not be able to turn the subtitles off.
- The type and number of languages for subtitles vary from disc to disc.
- Depending on the DVD, you may not be able to change the subtitles even if multilingual subtitles are recorded on it.
- While playing the DVD, the subtitle may automatically change.

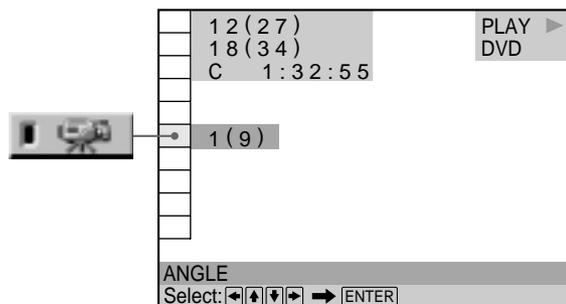
Changing the Angles **DVD**

With DVDs on which various angles (multi-angles) for a scene are recorded, you can change the angles. 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.

Select "ANGLE" after pressing DISPLAY. When the angles can be changed, the "ANGLE" indicator lights up in green.

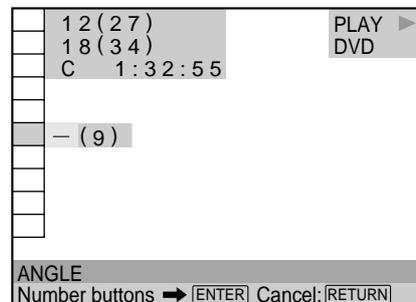


1 Select "ANGLE."



2 Press →.

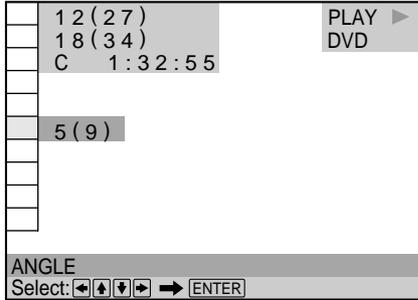
The number of the angle changes to "-". The number in parentheses indicates the total number of angles.



Changing the Angles

- 3 Select the angle number using the number buttons or **↑/↓**, then press **ENTER**.

The angle is changed to the selected angle.



You can select the angle directly

Press **ANGLE** on the remote. Each time you press the button, the angle changes.

Notes

- The number of angles varies from disc to disc or from scene to scene. The number of angles that can be changed on a scene is equal to the number of angles recorded for that scene.
- Depending on the DVD, you may not be able to change the angles even if multi-angles are recorded on the DVD.

Adjusting the Picture (VIDEO CONTROL)

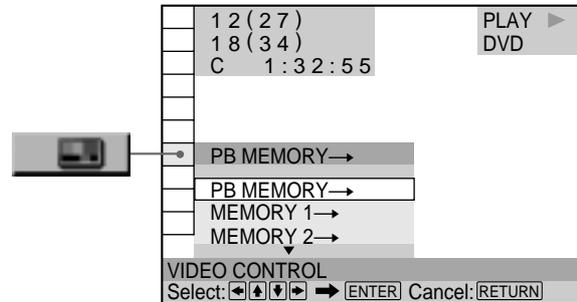


You can adjust the playback image of a DVD to match the light level of your room or the type of software that you are watching.

By using the noise reduction function, you can lessen the flickering that appears in the still areas of a playback image. You also can adjust the gamma level to improve the light areas of images that appear washed out or the dark areas that lack definition.

By making settings for different DVD genres such as movies or concerts and storing these settings in Memory 1 through 5, you can quickly adjust the player to the type of DVD software that you are watching. You can also save these settings for up to 300 individual discs using the Playback Memory function. See page 56 for more information about Playback Memory.

Select "VIDEO CONTROL" after pressing **DISPLAY**.

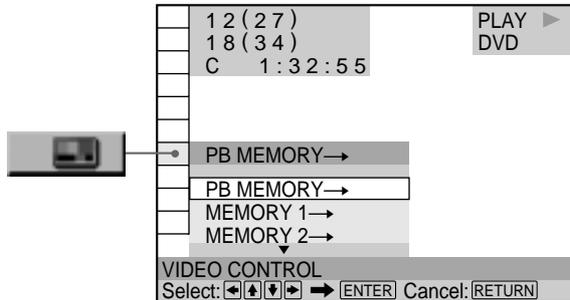


■ VIDEO CONTROL

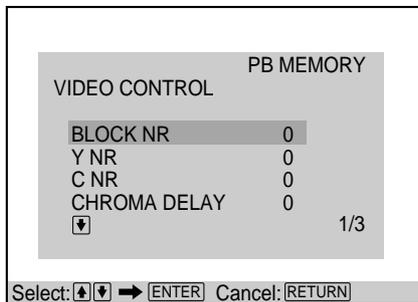
- **PB MEMORY→**
Plays a DVD according to the video control settings. You can select this item only when you set "PLAYBACK MEMORY" to "ON" in the "CUSTOM SETUP" display.
- **MEMORY 1 to 5→**
Plays a DVD according to the settings saved in memory 1 through 5. To make a setting, see "To adjust the picture items" on the next page.

Selecting a video control setting to be applied during playback

- 1 Select VIDEO CONTROL using \uparrow/\downarrow , then press ENTER.



- 2 Select the video control setting you want to apply during playback using \uparrow/\downarrow , then press ENTER. The "VIDEO CONTROL" display appears.



- 3 Confirm the setting and press \rightarrow RETURN. Playback starts according to the selected setting.

 To make additional changes to the selected setting When "VIDEO CONTROL" is displayed in step 2, select the item you want to adjust using \uparrow/\downarrow , then press ENTER. You can now adjust the item. The new setting can be saved to the Playback Memory for the current disc regardless of the video control setting (PB MEMORY \rightarrow or MEMORY 1 to 5). However, the original MEMORY 1 to 5 settings will not change.

Notes

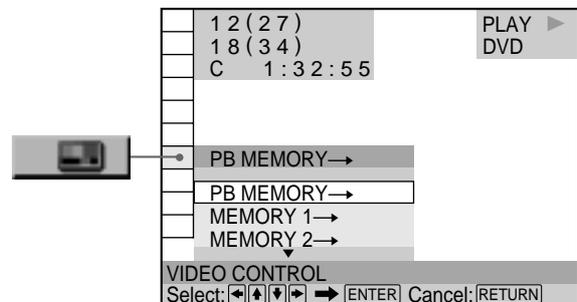
- If you remove the disc or press I/⏻ on the remote and place the player in standby mode when "PLAYBACK MEMORY" is set to "ON" in the "CUSTOM SETUP" display, the current PB MEMORY \rightarrow or MEMORY 1 to 5 settings are saved to Playback Memory for the current disc.
- If you have selected MEMORY 1 to 5 but do not want to change the Playback Memory setting for the current disc, select PB MEMORY \rightarrow before removing the disc or pressing I/⏻ on the remote to place the player in standby mode.

To adjust the picture items

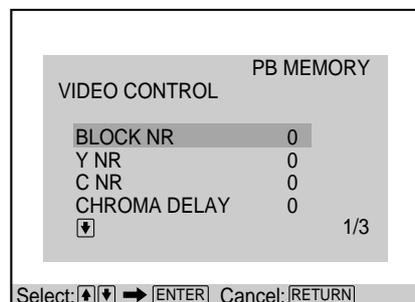
You can adjust each element of the picture individually and save the adjustments to each disc (Playback Memory) or to one of the five settings (Memory 1 through 5).

- BLOCK NR (noise reduction): Reduce the "block noise" or the mosaic like patterns that appear on your screen.
- Y (luminance) NR: This reduces the noise contained in the luminance element of the image's video signal.
- C (chroma) NR: This reduces the noise contained in the color (chroma) element of the image's video signal.
- CHROMA DELAY: Adjust this when the color of images on your screen appear to have shifted horizontally.
- PICTURE: Changes the contrast.
- BRIGHTNESS: Changes the overall brightness.
- COLOR: Makes the colors deeper or lighter.
- HUE: Changes the color balance.
- SHARPNESS: This will sharpen the outline of images.
- GAMMA: This will adjust the washed out or darkened areas of an image. See "Gamma Correction" on the next page for more information.

- 1 Select "VIDEO CONTROL" using \uparrow/\downarrow and press ENTER.



- 2 Select "PB MEMORY \rightarrow " or memory number you want to adjust using \uparrow/\downarrow and press ENTER. The "VIDEO CONTROL" display appears.

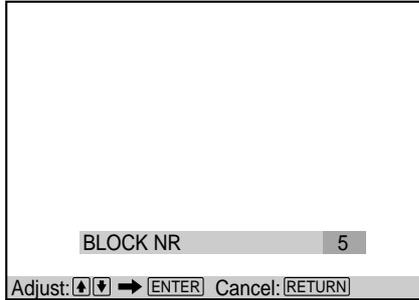


Adjusting the Picture (VIDEO CONTROL)

- 3** Select an item you want to adjust using \uparrow/\downarrow and press ENTER.

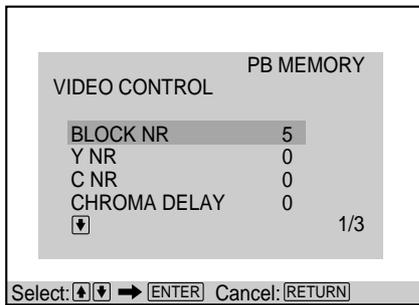
The selected item appears.

To cancel adjusting the picture, press \leftarrow RETURN before pressing ENTER.



- 4** Adjust the item you selected using \uparrow/\downarrow and press ENTER.

The adjusted value is displayed.



- 5** When you want to adjust another item, repeat steps 3 to 4.

- 6** • If you selected "PB MEMORY \rightarrow "

The adjusted values are stored in memory when you remove the disc or press I/⏻ on the remote and place the player in standby mode.

- If you selected a memory number

Select [SAVE] at the bottom of the "VIDEO CONTROL" display by pressing \uparrow/\downarrow and press ENTER.

The adjusted values are stored in memory for the memory number you selected in step 2.



To reset the value you adjusted

Select "RESET" in the "VIDEO CONTROL" display by pressing \uparrow/\downarrow and press ENTER.

Notes

- Depending on the disc, the effects of BLOCK NR, Y NR and C NR maybe difficult to discern.
- HUE is not available when a interlace format (480i) signal is output through the COMPONENT VIDEO OUT connectors.

Adjusting the areas of an image that are too light or dark (Gamma Correction)

Depending on your TV or viewing environment, images on the screen may lose definition because certain areas of the image are too light or too dark. When it is too light, the image will appear to be washed out, and when it is too dark, the image will blend into the surrounding dark areas.

By correcting the Gamma value, you can alter the brightness of selected areas so that the image can be seen clearly. Since the BRIGHTNESS adjustment controls the brightness of the entire image, the Gamma adjustment is useful when you need to increase the brightness of just the area that is too bright or too dark.

Example: You are watching a movie that is rich in shadows and you want to be able to see the details of the scenery hidden in these shadows.

If you use the BRIGHTNESS function to increase the brightness, the brightness of the entire image will increase, thus causing the light areas of the image to become washed out. By using the Gamma Correction feature, you can gradually increase the brightness of just the dark areas of an image without sacrificing the detail of the entire image.

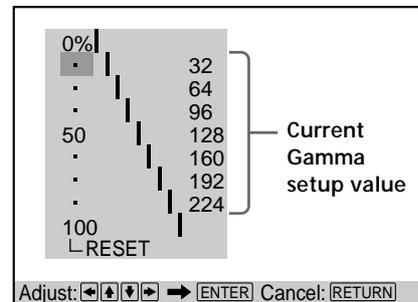
- 1** Select "VIDEO CONTROL" using \uparrow/\downarrow and press ENTER.

- 2** Select "PB MEMORY \rightarrow " or memory number you want to correct the gamma value by pressing \uparrow/\downarrow and press ENTER.

The "VIDEO CONTROL" display appears.

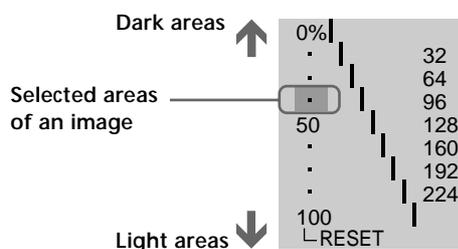
- 3** Press \downarrow to select "GAMMA" and press ENTER.

The "GAMMA" adjust display appears.



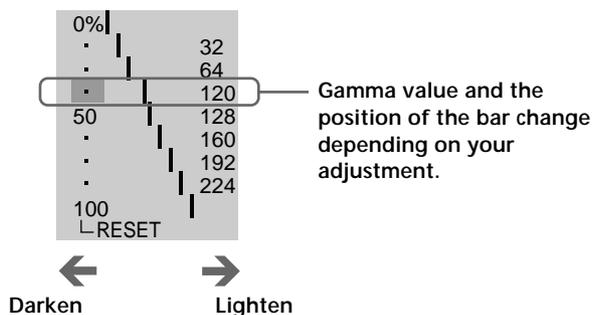
4 Press \uparrow/\downarrow to select areas of an image.

The upper region adjusts the dark areas and the lower region adjusts the light areas.



5 Press \leftarrow/\rightarrow to adjust the brightness level of the area that you selected.

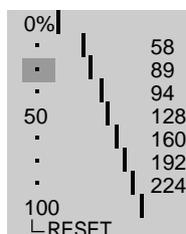
\leftarrow will decrease the level (darkens the area), and \rightarrow will increase the level (lightens the area). The level can be adjusted between 16 and 235. However, the level for the dark areas can never be greater than the light areas.



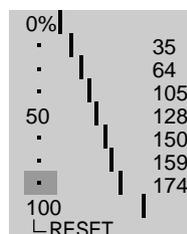
6 Repeat steps 4 and 5 to adjust the brightness level of other areas that you select.

Try to keep the line that connects the brightness level of each area as smooth and straight as possible.

How to lighten the dark areas of an image.



How to darken the light areas of an image.



To prevent the image from appearing overly altered, do not give the line any sharp changes. Gradually make the adjustments while viewing the image on your TV screen.

Press δ RETURN to stop making adjustments to the image.

7 Press ENTER.

"VIDEO CONTROL" display appears.

8 • If you selected "PB MEMORY \rightarrow "

The adjusted values are stored in memory when you remove the disc or press I/⏻ on the remote and place the player in standby mode.

• If you selected a memory number

Select [SAVE] at the bottom of the "VIDEO CONTROL" display by pressing \uparrow/\downarrow and press ENTER.

The adjusted values are stored in memory for the memory number you selected in step 2.

To reset only the gamma value to the default setting

Select "RESET" in the gamma adjustment display by pressing \uparrow/\downarrow and press ENTER.

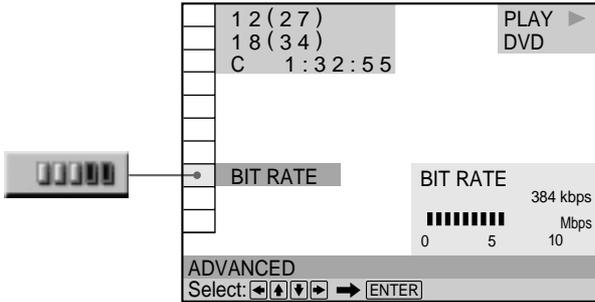
You can move the gamma adjustment display horizontally. By pressing \leftarrow/\rightarrow , you can move the gamma adjustment display horizontally.

Checking the Play Information **DVD**

You can check information such as the bit rate or the disc layer that is being played.

While playing a disc, the 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).

Select "ADVANCED" after pressing DISPLAY.



■ ADVANCED

The default setting is underlined.

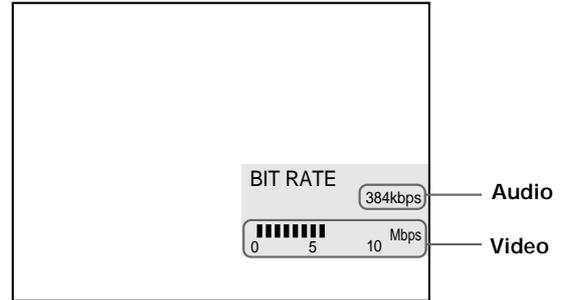
When playing a DVD

- BIT RATE: displays the bit rate.
- LAYER: displays the layer and the pick-up point.
- OFF: turns off ADVANCED display.

Displays of each item

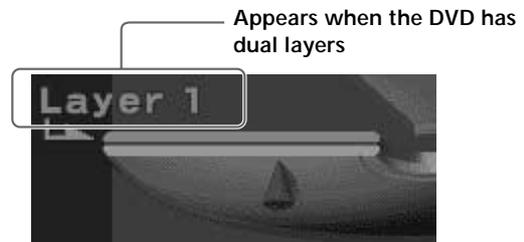
By pressing DISPLAY repeatedly, you can display either "BIT RATE" or "LAYER," whichever was selected in "ADVANCED."

BIT RATE



Bit rate 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



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 71 (DVD).

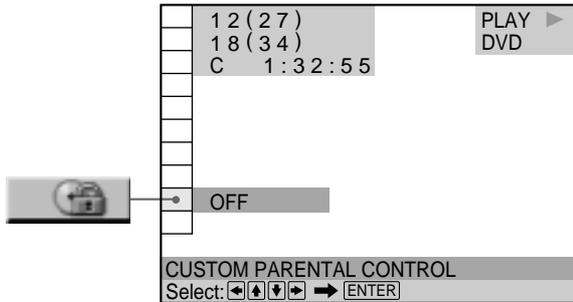
Locking Discs (Custom Parental Control)

Using a registered password, you can set playback restrictions for the desired disc.

You can set the same Custom Parental Control password for up to 300 discs. When you set the three hundred and first disc, the first disc is canceled.

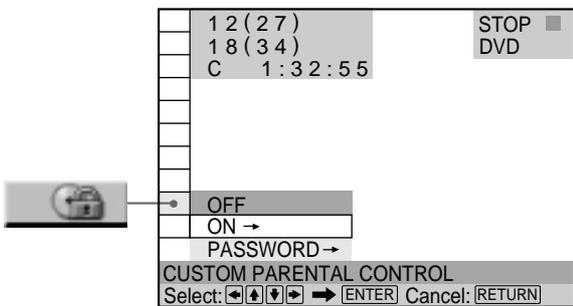
The same password is used for both Parental Control (page 57) and Custom Parental Control.

Select "CUSTOM PARENTAL CONTROL" after pressing DISPLAY.



Setting the Custom Parental Control for a disc

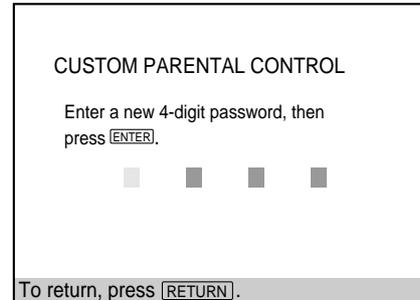
- 1 Insert the disc you want to lock.
If a disc is playing, press **■** to stop playback.
- 2 Select "CUSTOM PARENTAL CONTROL" using **↑/↓**, then press **ENTER**.



- 3 Select "ON→" using **↑/↓**, then press **ENTER**.

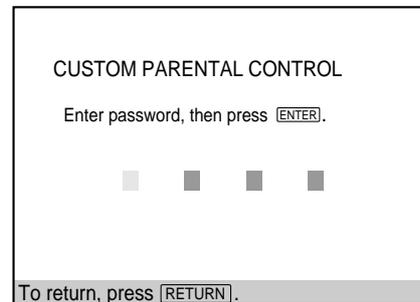
■ If you have not entered a password

The display for entering a password appears.



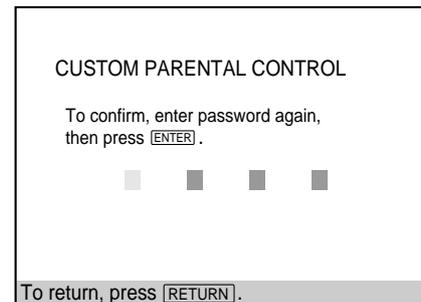
■ When you have already registered a password

The display for confirming the password appears. Skip Step 4.



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

The digits change to asterisks (*****), and the display for confirming the password appears.



- 5 Enter the same 4-digit password using the number buttons, then press **ENTER**.

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

Locking Discs (Custom Parental Control)

To return to the normal screen

Press  RETURN.

To turn off the Custom Parental Control function

- 1 Select "CUSTOM PARENTAL CONTROL" using , then press ENTER.
- 2 Select "OFF" using , then press ENTER.
- 3 Enter your 4-digit password using the number buttons, then press ENTER.

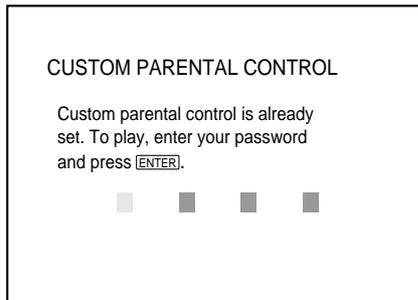
To change the password

- 1 Select "CUSTOM PARENTAL CONTROL" using , then press ENTER.
- 2 Select "PASSWORD" using , then press ENTER.
- 3 Enter your 4-digit password using the number buttons, then press ENTER.
The display for changing the password appears.
- 4 Enter a new 4-digit password using the number buttons, then press ENTER.
- 5 To confirm your password, re-enter it using the number buttons, then press ENTER.

Playing the disc for which the Custom Parental Control is set

1 Insert the disc.

The CUSTOM 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

Enter the 6-digit number "199703" whenever 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.

Note

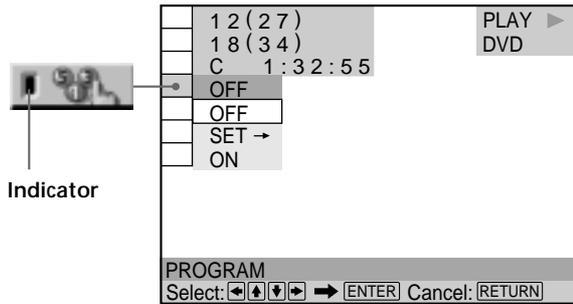
Unless you enter the password, the player cannot play the disc for which the Custom Parental Control is set. When you do not know the password, press  and remove the disc.

Creating Your Own Program (Program Play) **DVD**



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

Select "PROGRAM" after pressing DISPLAY. When you select "ON," the "PROGRAM" indicator lights up in green.



PROGRAM

The default setting is underlined.

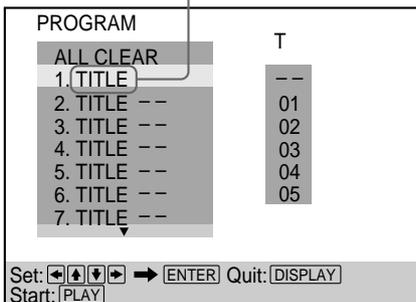
- OFF: plays normally.
- SET ->: allows you to create your own program.
- ON: plays Program Play.

Creating the program

1 Select "SET->" in "PROGRAM."

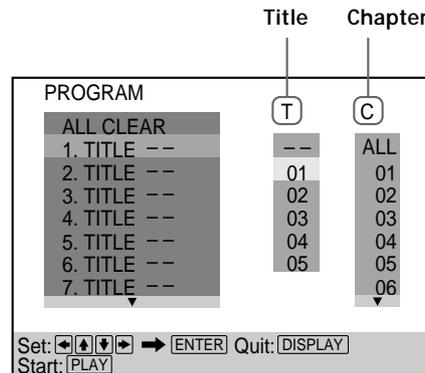
The programming display appears.

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



2 Press ->.

"01" is highlighted. It is ready to set the first title or track for Program Play.



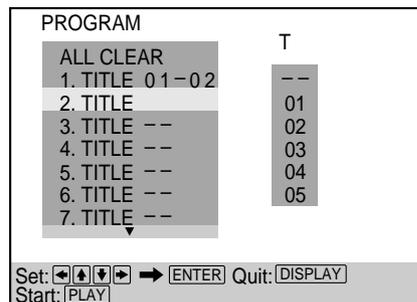
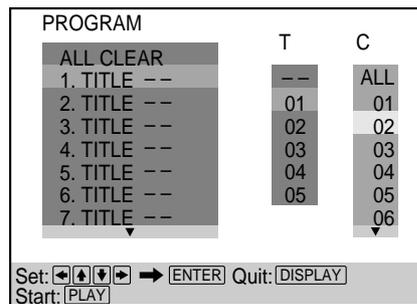
3 Select the title, chapter or track you want to program using up/down, then press ENTER.

For example, select title or track 2.

(You can also use the number buttons and ENTER button to make a selection. In this case, the selected number is displayed on the screen.)

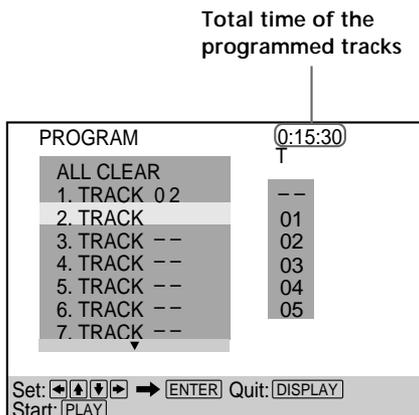
When playing a DVD

When both titles and chapters are recorded on the disc, select the title, then the chapter.



Creating Your Own Program (Program Play)

- When playing a VIDEO CD or SACD/CD
Select the track you want to program.



- To program other titles, chapters or tracks, repeat Step 3.

The programmed titles, chapters or tracks are displayed in the selected order.

- Press \triangleright to start Program Play.

To stop Program Play

Press CLEAR.

To cancel programming

Press PROGRAM on the remote.

To change the program

- In Step 2, select the program number of the title, chapter or track you want to change using \uparrow/\downarrow .
- Follow Step 3 for new programming.

To cancel the programmed order

To cancel all the titles, chapters or tracks in the programmed order, select "ALL CLEAR" in Step 2.

To cancel the selected program, select the program using \uparrow/\downarrow in Step 2 then press CLEAR, or select "--" in Step 3 then press ENTER.

- 💡 The program remains even after Program Play ends
When you press \triangleright , you can play the same program again.

- 💡 You can do Repeat Play or Shuffle Play of the programmed titles, chapters or tracks

During Program Play, press REPEAT or SHUFFLE on the remote. Or set "REPEAT" or "SHUFFLE" to "ON" in the Control Menu display.

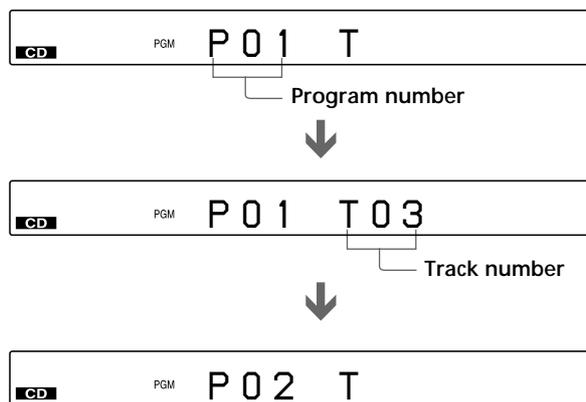
- 💡 You can select "PROGRAM" directly

Press PROGRAM on the remote.

- 💡 You can select discs, titles, chapters and tracks for the program by looking at the front panel display

You can program by looking at the front panel display instead of using the programming display on the TV screen.

When you select Track 3 in a CD for program 1, the front panel display will appear as follows:



Notes

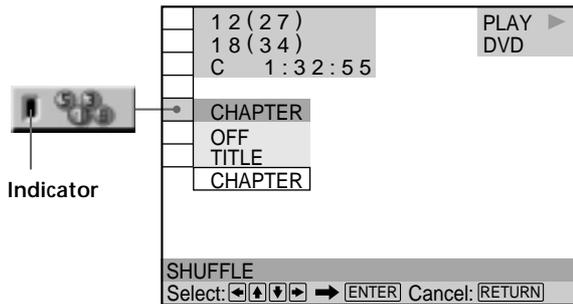
- The number of titles, chapters or tracks displayed are the same number of titles, chapters or tracks recorded on a disc.
- The program is canceled when:
 - you open the disc tray
 - the player enters standby mode by pressing I/Power on the remote
 - you turn the power off by pressing POWER on the player
- Depending on the DVD, you may not be able to perform Program Play.
- If you are using the PBC playback function, you must first stop the disc before you can set a program.
- When playing SACDs, the track number appears as three digits.

Playing in Random Order (Shuffle Play)



You can have the player “shuffle” titles or tracks and play them in a random order. Subsequent “shuffling” may produce a different playing order.

Select “SHUFFLE” after pressing DISPLAY. When you select a shuffle mode other than “OFF,” the “SHUFFLE” indicator lights up in green.



You can set Shuffle Play while the disc is stopped. After selecting the “SHUFFLE” option, press . The player starts Shuffle Play.

You can select “SHUFFLE” directly. Press SHUFFLE on the remote. Each time you press the button, the item changes.

Notes

- Shuffle Play is canceled when:
 - you open the disc tray
 - the player enters standby mode by pressing on the remote
 - you turn the power off by pressing POWER on the player
- Depending on the DVD, you may not be able to perform Shuffle Play.
- Up to 200 chapters in a disc can be played in random order when “CHAPTER” is selected.
- You cannot perform Shuffle Play during PBC playback of VIDEO CDs (page 25).

■ SHUFFLE

Selects the Shuffle Play setting. The default settings are underlined.

When playing a DVD and when Program Play is set to OFF

- OFF: does not play a disc in random order.
- TITLE: has the player “shuffle” titles and play them in a random order.
- CHAPTER: has the player “shuffle” chapters and play them in a random order.

When playing a VIDEO CD or SACD/CD (when Program Play is set to OFF)

- OFF: does not play a disc in random order.
- TRACK: has the player “shuffle” tracks and play them in a random order.

When playing a VIDEO CD, SACD/CD or DVD (when Program Play is set to ON)

- OFF: does not play a disc in random order.
- ON: has the player “shuffle” titles or tracks selected in Program Play and play them in a random order.

To stop Shuffle Play

Press CLEAR.

Playing Repeatedly (Repeat Play)

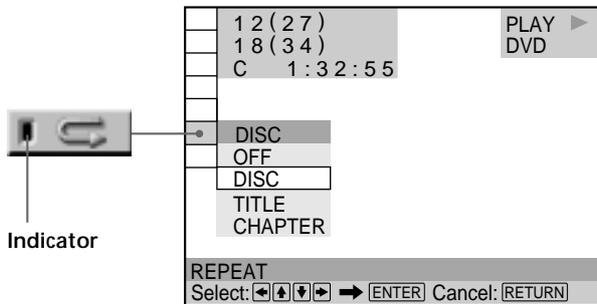
DVD

VIDEO CD

SACD CD

You can play all of the titles or tracks on a disc or a single title, chapter or track repeatedly.
In Shuffle or Program Play mode, the player repeats the titles or tracks in the shuffled or programmed order.
You cannot perform Repeat Play during PBC playback of VIDEO CDs (page 25).

Select "REPEAT" after pressing DISPLAY. When you select a repeat mode other than "OFF," the "REPEAT" indicator lights up in green.



REPEAT

Selects the Repeat Play setting.
The default settings are underlined.

When playing a DVD and when Program Play and Shuffle Play are set to OFF

- OFF: does not play repeatedly.
- DISC: repeats all of the titles.
- TITLE: repeats the current title on a disc.
- CHAPTER: repeats the current chapter.

When playing a VIDEO CD/SACD/CD and when Program Play and Shuffle Play are set to OFF

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

When Program Play or Shuffle Play is on

- OFF: does not play repeatedly.
- ON: repeats Program Play or Shuffle Play.

To stop Repeat Play

Press CLEAR on the remote.

You can set Repeat Play while the disc is stopped
After selecting the "REPEAT" option, press \triangleright .
The player starts Repeat Play.

You can select "REPEAT" directly
Press REPEAT on the remote. Each time you press the button, the item changes.

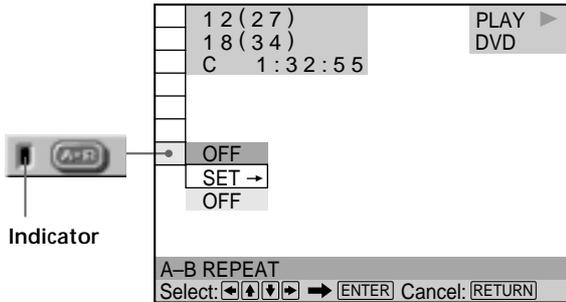
Notes

- Repeat play is canceled when:
 - you open the disc tray
 - the player enters standby mode by pressing I/⏻ on the remote
 - you turn the power off by pressing POWER on the player
- Depending on the DVD, you may not be able to perform Repeat Play.

Repeating a Specific Portion (A-B Repeat) DVD VIDEO CD SACD CD

You can play a specific portion of a title, chapter or track repeatedly. This function is useful when you want to do such things as memorize lyrics.
During PBC Playback of VIDEO CDs (page 25), this function is available only while playing moving pictures.

Select "A-B REPEAT" after pressing DISPLAY. During A-B Repeat Play, the "A-B REPEAT" indicator lights up in green.



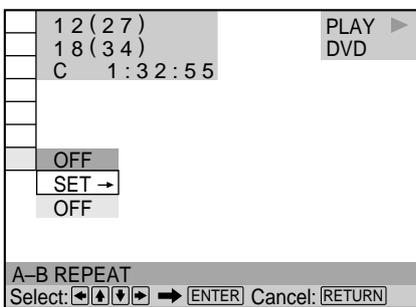
■ A-B REPEAT

The default setting is underlined.

- **SET →**: sets the A and B points.
- **OFF**: does not play a specific portion of a title/chapter/track repeatedly.

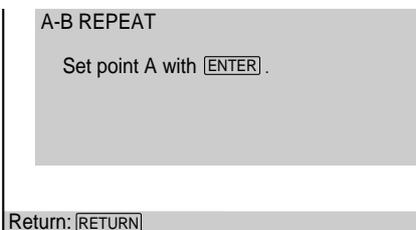
Setting a portion for A-B repeat

1 Select "A-B REPEAT" and press ENTER.



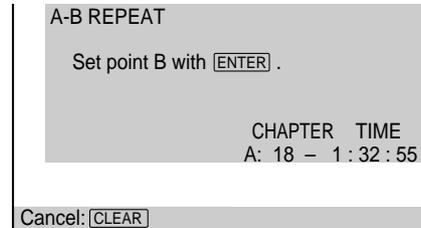
2 Select "SET →" and press ENTER.

The A-B REPEAT setting display appears.



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

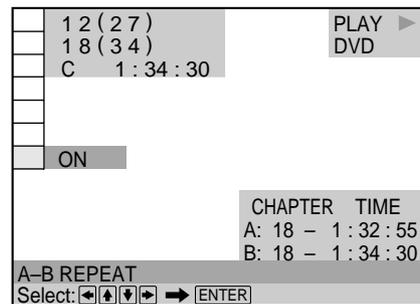
The starting point (point A) is set.



4 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.



To stop A-B Repeat Play

Press CLEAR.



You can directly select the portion to be repeated

During playback, press the A ↔ B button once to set the A (starting) point. Press the button again to set the B (ending) point. The portion between points A and B will be played repeatedly.

Notes

- You can set A-B Repeat for only one specific portion.
- A-B Repeat is canceled when:
 - you open the disc tray
 - the player enters standby mode by pressing I/⏻ on the remote
 - you turn the power off by pressing POWER on the player
- When you set A-B Repeat, the settings for Shuffle Play, Repeat Play and Program Play are canceled.
- You may not be able to set A-B Repeat for some DVD or VIDEO CD scenes.

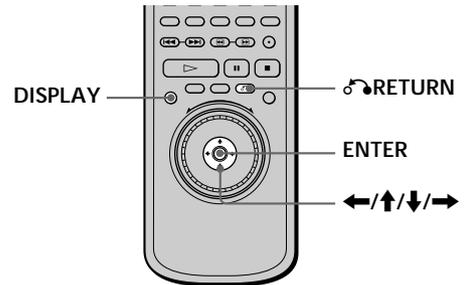
Settings and Adjustments

This chapter describes how to set and adjust the player using the on-screen setup menu. Most settings and adjustments are required to be set when you first use the player. This chapter also describes how to control the TV or AV receiver (amplifier) using the supplied remote.

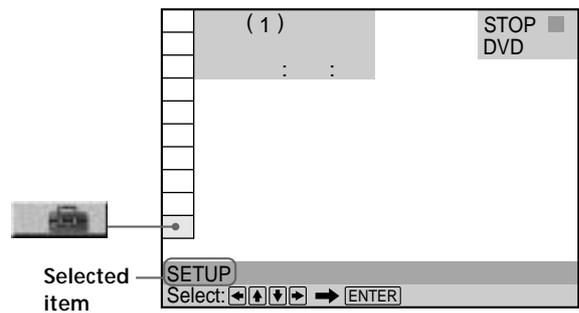
Using the Setup Display



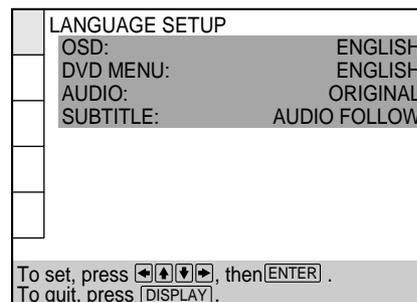
Using the setup display, you can do the initial setup, adjust the picture and sound and set the various outputs. You can also set a language for the subtitles and the setup display, limit playback by children, and so on. For details on each setup display item, see pages 52 to 63.



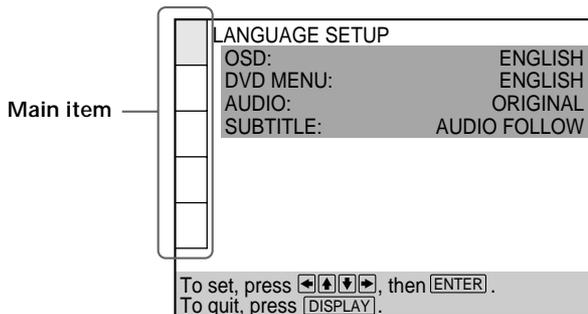
- 1 Press DISPLAY and select "SETUP" using \uparrow/\downarrow .



- 2 Press ENTER.
The setup display appears.

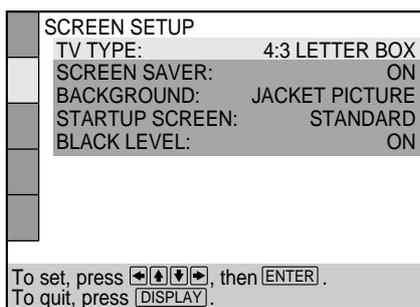


3 Select the main item you want using \uparrow/\downarrow .

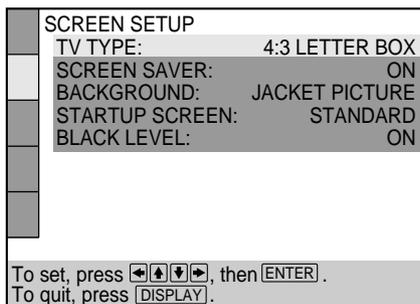


4 Press ENTER.

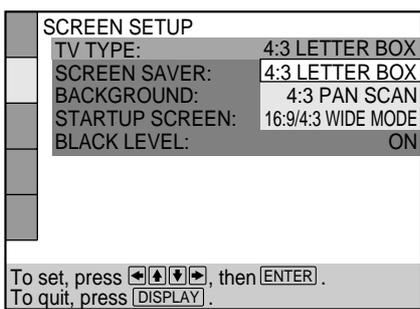
The selected main item is highlighted.



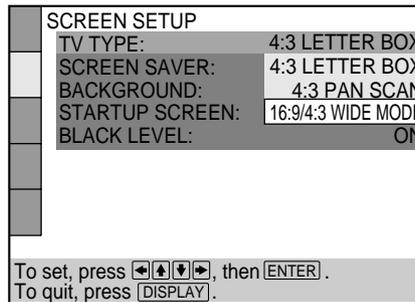
5 Select the item you want using \uparrow/\downarrow .



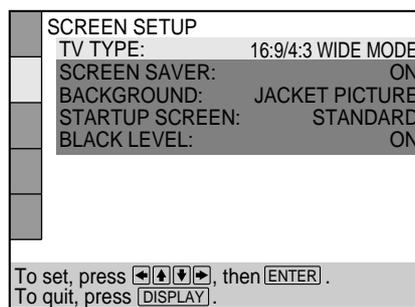
6 Press ENTER.



7 Select the setting you want using $\leftarrow/\uparrow/\downarrow/\rightarrow$.



8 Press ENTER.



9 Press DISPLAY.

The setup display disappears.

10 Press DISPLAY repeatedly to turn off the on-screen menu.

To return to the previous screen

Press \leftarrow RETURN.

To quit while making a selection

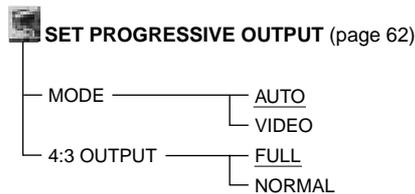
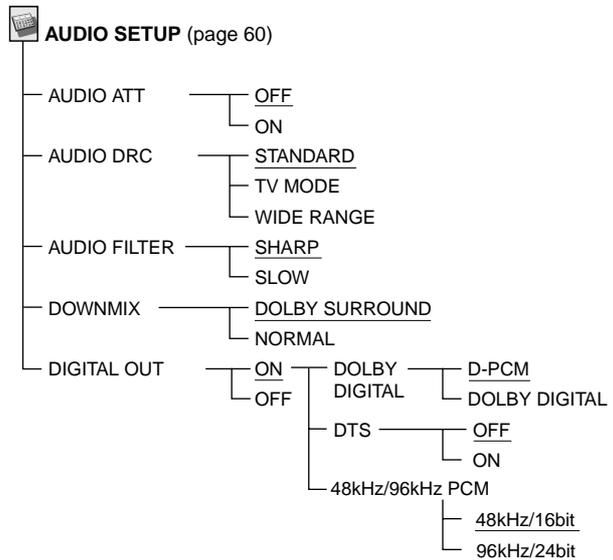
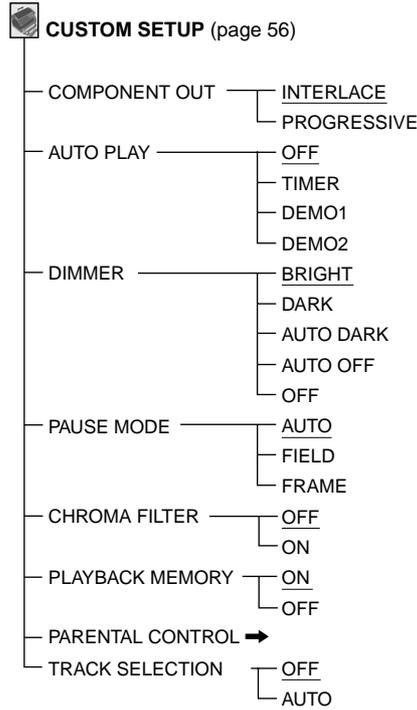
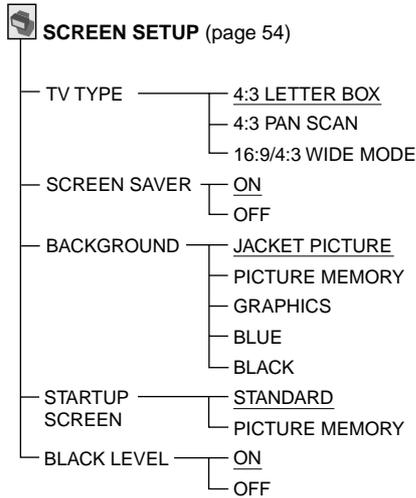
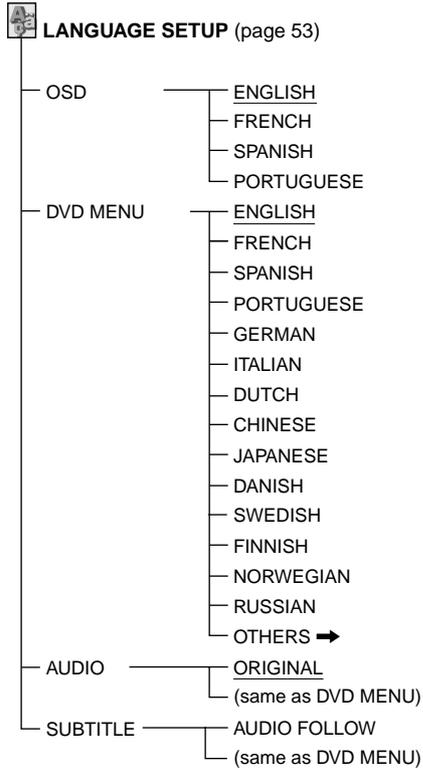
Press DISPLAY.

Notes

- You cannot change some setup display items unless the player stops.
- Some setup display items require operations other than selecting the setting. For details on these items, see the relevant pages.

Setup Display Item List

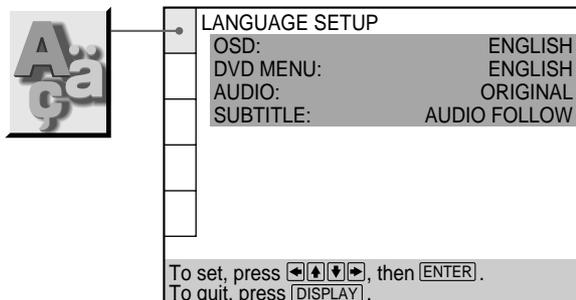
The default settings are underlined.



Setting the Display Language or Sound Track (LANGUAGE SETUP)

“LANGUAGE SETUP” allows you to set various languages for the on-screen display or sound track. The default settings are underlined.

Select “LANGUAGE SETUP” in the setup display.



Notes

- When you select a language that is not recorded on the DVD, one of the recorded languages is automatically selected for the “DVD MENU,” “AUDIO” and “SUBTITLE” settings.
- Depending on the DVD, the player may not start playing with the selected language even when you select a language in “DVD MENU,” “AUDIO” or “SUBTITLE.”

■ OSD (On-Screen Display)

Selects the language for the on-screen display.

- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE

■ DVD MENU

Selects the language for the DVD menu.

- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE
- GERMAN
- ITALIAN
- DUTCH
- CHINESE
- JAPANESE
- DANISH
- SWEDISH
- FINNISH
- NORWEGIAN
- RUSSIAN
- OTHERS➔

When you select “OTHERS➔,” select and enter the language code from the list using the number buttons (page 73). After you have made a selection, the language code (4 digits) is displayed.

■ AUDIO

Selects the language for the sound track.

- ORIGINAL: the language given priority in the disc
- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE
- GERMAN
- ITALIAN
- DUTCH
- CHINESE
- JAPANESE
- DANISH
- SWEDISH
- FINNISH
- NORWEGIAN
- RUSSIAN
- OTHERS➔

When you select “OTHERS➔,” select and enter the language code from the list using the number buttons (page 73). After you have made a selection, the language code (4 digits) is displayed.

■ SUBTITLE

Selects the language for the subtitles.

- AUDIO FOLLOW*
- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE
- GERMAN
- ITALIAN
- DUTCH
- CHINESE
- JAPANESE
- DANISH
- SWEDISH
- FINNISH
- NORWEGIAN
- RUSSIAN
- OTHERS➔

When you select “OTHERS➔,” select and enter the language code from the list using the number buttons (page 73). After you have made a selection, the language code (4 digits) is displayed.

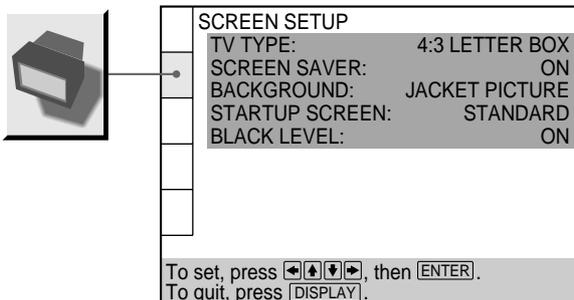
- * When you select “AUDIO FOLLOW,” the language for the subtitles changes according to the language you selected for the sound track.

Settings for the Display (SCREEN SETUP)



“SCREEN SETUP” allows you to set the display according to the playback conditions. The default settings are underlined.

Select “SCREEN SETUP” in the setup display.

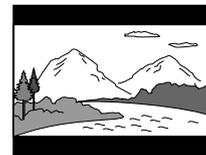


■ TV TYPE

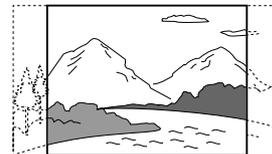
Selects the aspect ratio of the TV to be connected.

- **4:3 LETTER BOX**: select this when you connect a 4:3 normal screen TV to the player. 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 normal screen TV to the player. Displays the wide picture on the whole screen automatically and cuts off the portions that do not fit.
- **16:9/4:3 WIDE MODE**: select this when you connect a wide-screen TV to the player or when you connect a TV with the WIDE MODE function to the player (displays a wide picture with bands displayed on the upper and lower portions of the screen).

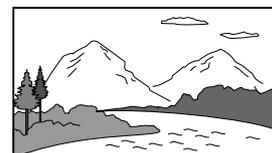
4:3 LETTER BOX



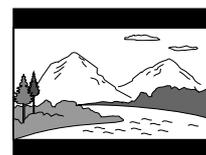
4:3 PAN SCAN



16:9



4:3 WIDE MODE



Note

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

■ SCREEN SAVER

Turns on and off the screen saver. If you turn on the screen saver, the screen saver image appears when you leave the player or the remote 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.

- **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 appears in the background, but only when the jacket picture is already recorded on the disc (for instance, a CD-EXTRA).
- **PICTURE MEMORY:** Your favorite picture appears in the background. For an explanation of how to store your favorite scene recorded on the disc for the background picture, see the following section "Storing a picture in memory."
- **GRAPHICS:** A preset picture stored in the player appears in the background.
- **BLUE:** The background color is blue.
- **BLACK:** The background color is black.

Note

If a disc which does not contain the jacket picture is played while "BACKGROUND" is set to "JACKET PICTURE," the picture stored in the player will automatically appear in the background.

■ STARTUP SCREEN

Selects the startup screen. The startup screen image you selected appears when you turn on the player.

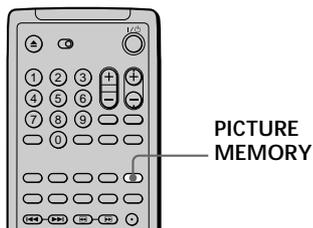
- **STANDARD:** The standard startup screen in the player's memory appears.
- **PICTURE MEMORY:** Your favorite picture appears in the startup screen. For an explanation of how to store your favorite scene recorded on the disc for the startup screen, see the following section "Storing a picture in memory."

If you select PICTURE MEMORY before setting a picture in memory, the standard startup screen will appear.

Storing a picture in memory

During playback, when you find the scene to be stored in memory, press PICTURE MEMORY on the remote.

The picture is stored in memory.



Notes

- The player can store only one scene in memory. The stored picture appears in both the background and the startup screen.
- When the picture is stored in memory by pressing PICTURE MEMORY, the picture stored before is erased.
- If you operate this player while the picture is being stored in memory, the player will fail to store the picture.
- Depending on the DVD, some scenes cannot be stored in memory.

■ BLACK LEVEL

You can select the black level (setup level) for the output video (NTSC) signal. Use this to adjust the picture when dark objects are too pronounced, or when the picture becomes whitish.

- **ON:** This will set the black level of the output signal to the standard level.
- **OFF:** This will lower the standard black level. Use this setting when the picture becomes too white.

Notes

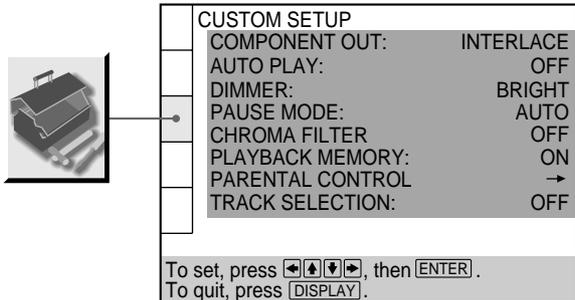
- The standard setup level may differ according to the connected equipment. If the image becomes too white, set the level to OFF.
- Black level setup does not work for progressive (480p) signals output from the COMPONENT VIDEO OUT connectors.

Custom Settings (CUSTOM SETUP)



“CUSTOM SETUP” allows you to set the playback conditions.
The default settings are underlined.

Select “CUSTOM SETUP” in the setup display.



■ COMPONENT OUT

This will change the type of signal output from the COMPONENT VIDEO OUT connectors on this player. See page 71 for more information about the different types.

- INTERLACE: This outputs the signal in interlace format. Select this when you are connected to a standard (interlace format) TV.
- PROGRESSIVE: This outputs the signal in progressive (480p) format. Select this when you have a TV that can accept progressive signals.

Note

If you select “PROGRESSIVE” when you connect the player to a TV that cannot accept the signal in progressive format (480p), the image quality will deteriorate. In this case, set the SCAN SELECT switch on the back panel of the player to “INTERLACE.” Then set “COMPONENT OUT” to “INTERLACE” when you can see the TV screen correctly, and set SCAN SELECT to “SELECTABLE.”

■ AUTO PLAY

Selects the Auto Play setting when you connect the AC power cord to the AC outlet.

- OFF: does not use “TIMER,” “DEMO1” or “DEMO2” to start playback.
- TIMER: starts playing when the player is turned on, or at any time you want 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 and indicators.

- BRIGHT: makes the front panel display bright.
- DARK: makes the front panel display dark.
- AUTO DARK: If you do not operate the player or remote for a short while, the front panel display becomes dark.
- AUTO OFF: If you do not operate the player or remote for a short while, the front panel display turns off.
- OFF: This turns off the front panel display.



You can directly turn on/off the front panel display by using the remote

By pressing FL ON/OFF on the remote, you can turn on/off the front panel display regardless the “DIMMER” setting (except when it is set to OFF).

■ PAUSE MODE (DVD only)

Selects the picture in pause mode.

- AUTO: Moving subjects are output with no jitter, and still objects are shown at high resolution. The picture remains clear even during slow playback when using the shuttle ring (Clear Frame function). Normally select this position.
- FIELD: A picture including subjects that move is output with less jitter but at a lower resolution than “FRAME.”
- FRAME: A picture including subjects that do not move dynamically is output with high resolution.

■ CHROMA FILTER

This filter controls the level of the color (Chroma) element of the image's video signal to control color saturation level.

- OFF: This turns off the chroma filter. The filter is normally set to off.
- ON: This turns on the chroma filter and adjusts the color saturation level so that colors do not bleed.

Notes

- This function is not available when the player is set to output progressive video signals.
- If you use the COMPONENT VIDEO OUT connectors, set CHROMA FILTER to OFF to maintain accurate color reproduction.

■ PLAYBACK MEMORY

The player can store the SUBTITLE, VIDEO CONTROL and other settings of each disc for up to 300 discs (Playback Memory).

Set the Playback Memory function on or off.

- ON: stores the settings in memory when you eject the disc or when you press I/⏻ on the remote and the player enters the standby mode with the disc still in the player.
- OFF: does not store the settings in memory.

The following settings are stored in memory by the Playback Memory function.

- AUDIO (page 35)*
- SUBTITLE (page 37)*
- ANGLE (page 37)*
- VIDEO CONTROL (page 38)

* DVD only

Notes

- The player can store the settings of up to 300 discs. When you store the setting of disc number 301, 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.
- Do not turn off the player by pressing POWER. 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.

■ PARENTAL CONTROL →

Sets a password and playback limitation level for DVDs with playback limitation for children.

The same password is used for both Parental Control and Custom Parental Control (page 43).

For details, see "Limiting Playback by Children (Parental Control)." ."

■ TRACK SELECTION

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.

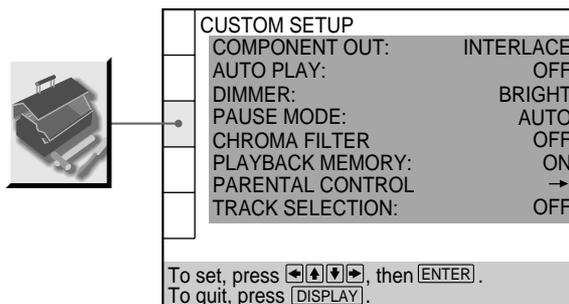
Notes

- When you set this item to "AUTO," the language may change depending on the "AUDIO" settings in "LANGUAGE SETUP." The "TRACK SELECTION" setting has higher priority than the "AUDIO" settings in "LANGUAGE SETUP" (page 53).
- If you set "DTS" in "AUDIO SETUP" to "OFF", the DTS sound track is not played even if you set this item to "AUTO" and the highest-numbered audio channel is recorded in DTS format.
- 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 or Dolby Digital format by selecting "AUTO."

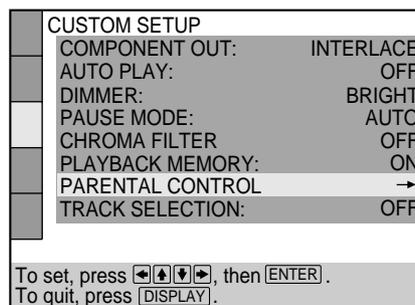
Limiting Playback by Children (Parental Control)

Playback of some DVDs can be limited depending on the age of the users. The "Parental Control" function allows you to set a playback limitation level.

Select "CUSTOM SETUP" in the setup display.

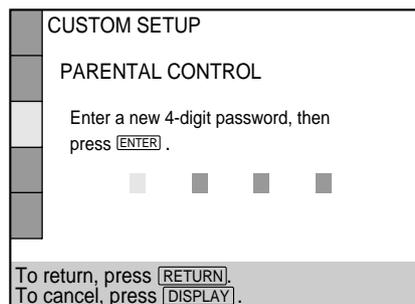


- 1 Select "PARENTAL CONTROL" using ↑/↓, then press ENTER.



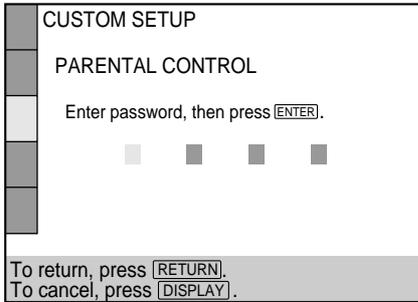
■ When you have not entered a password

The display for entering a password appears.

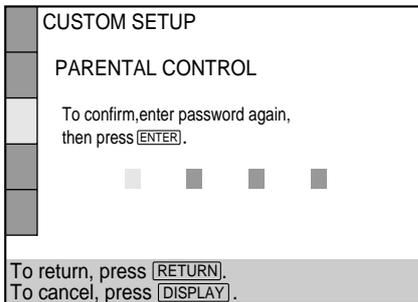


Custom Settings (CUSTOM SETUP)

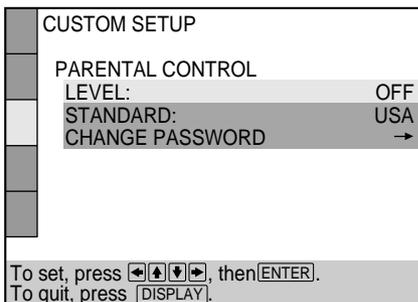
- **When you have already registered a password**
The display for confirming the password appears. Skip Step 2.



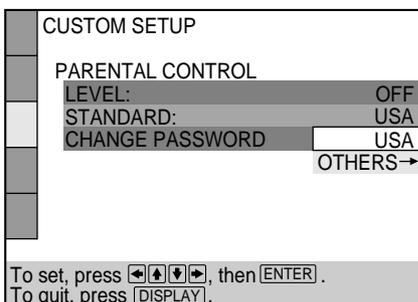
- 2 Enter a password in 4 digits using the number buttons, then press ENTER.**
The digits change to asterisks (✳), and the display for confirming the password appears.



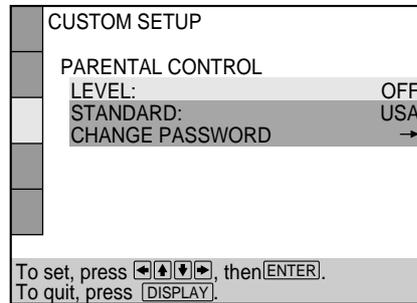
- 3 To confirm your password, enter it again using the number buttons, then press ENTER.**
The display for setting the playback limitation level and changing the password appears.



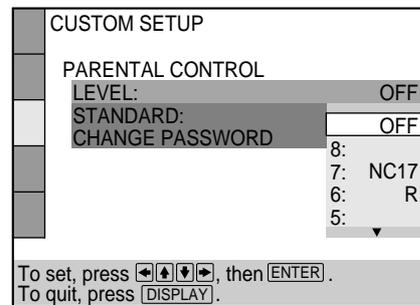
- 4 Select "STANDARD" using ↑/↓, then press →.**



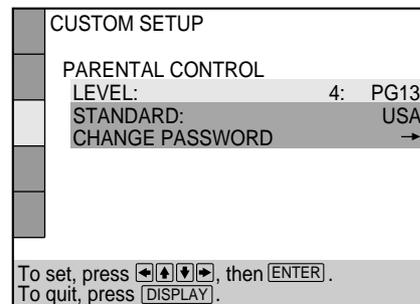
- 5 Select a geographic area as the playback limitation level standard using ↑/↓, then press ENTER.**
When you select "OTHERS→," select and enter the standard code in the table on the next page using the number buttons.



- 6 Select "LEVEL" using ↑/↓, then press →.**



- 7 Select the level you want using ↑/↓, then press ENTER.**



The lower the value, the more strict the limitation.

To return to the normal screen

Press DISPLAY.

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

Set "LEVEL" to "OFF" in Step 7, then press ▷.

To change the password

1 After Step 3, select "CHANGE PASSWORD" using \uparrow/\downarrow , then press \rightarrow or ENTER.

The display for changing the password appears.

2 Follow Steps 2 and 3 to enter a new password.

Playing a disc which is blocked by the playback limitation level

1 Insert the disc and press \triangleright .

The PARENTAL CONTROL display appears.

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

The player starts playback.

When you stop playing the DVD, the level returns to the original level.



If you forget your password

Enter the 6-digit number "199703" whenever the PARENTAL CONTROL display asks you for your password, then press ENTER. The display will ask you to enter a new 4-digit password.

Notes

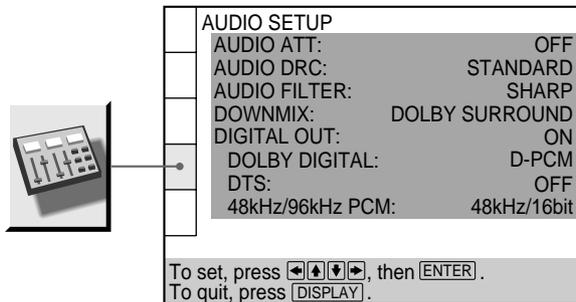
- When you play DVDs which do not have the Parental Control function, playback cannot be limited on this player.
- If you do not set a password, you cannot change the settings for playback limitation.
- Depending on the DVD, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level. When you stop playing the DVD, the level returns to the original level.
- The same password is used for both Parental Control and Custom Parental Control (page 43) .

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

Settings for the Sound (AUDIO SETUP)

“AUDIO SETUP” allows you to set the sound according to the playback conditions. The default settings are underlined.

Select “AUDIO SETUP” in the setup display.



■ AUDIO ATT (attenuation)

If the playback sound is distorted, set this item to “ON.” The player reduces the audio output level. Selects the setting of the output from the AUDIO OUT (1, 2) connectors according to the audio equipment to be connected.

- 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 built-in TV speakers is distorted.

Note

The setting does not affect the output from the DIGITAL OUT OPTICAL and COAXIAL connectors.

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

Makes the sound clear when the volume is turned down when playing a DVD. This function works only when you play a DVD which has the AUDIO DRC function. This affects the output from the DIGITAL OUT connectors only when “DOLBY DIGITAL” is set to “D-PCM” in “DIGITAL OUT.”

- 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: It gives you the original sound recorded in the disc. You may have difficulty hearing the audio, depending on your environment.

Note

When you play DVDs without the AUDIO DRC function, there is no effect on the sound.

■ AUDIO FILTER

Selects the digital filter to reduce noises above the 22.05 kHz (Sampling frequency (Fs) of the audio source is 44.1 kHz), 24 kHz (Fs is 48 kHz) or 48 kHz (Fs is above 96 kHz).

- SHARP: provides a wide frequency range and spatial feeling.
- SLOW: provides smooth and warm sound.

Notes

- There may be little effect by changing the digital filter, depending on discs or playback environment.
- There is no effect on SACDs.

■ DOWNMIX

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 “Displaying the audio information of the disc” (page 36).

The “DOWNMIX” setting affects the following connectors:

- AUDIO OUT connectors
- DIGITAL OUT OPTICAL and COAXIAL connectors (when you set “DOLBY DIGITAL” to “D-PCM” in “AUDIO SETUP” in the setup display)
- DOLBY SURROUND: when the player is connected to an audio component that conforms to Dolby Surround (Pro Logic). The output signals which reproduce the Dolby Surround (Pro Logic) effect are mixed down to 2 channels.
- NORMAL: when the player is connected to an audio component that does not conform to Dolby Surround (Pro Logic). The signals without the Dolby Surround (Pro Logic) effect are output.

■ DIGITAL OUT

Selects output signals via the DIGITAL OUT OPTICAL and COAXIAL connectors.

- 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: when the player does not output the sound signals via the DIGITAL OUT OPTICAL and COAXIAL connectors, the influence of the digital circuit upon the analog circuit is at a minimum.

 You can directly switch the digital audio output on or off. When “DIGITAL OUT” is set to “ON” and the player is stopped, press AUDIO DIRECT on the player. The digital audio output is turned on or off.

Note, however, that the “DIGITAL OUT” setting remains the same.

Notes

- When you select “OFF,” you cannot set “DOLBY DIGITAL,” “DTS” and “48kHz/96kHz PCM.”
- SACD sound signals are not output from the DIGITAL OUT OPTICAL or COAXIAL connectors.

Setting the Digital Output Signal

Switches the methods of outputting audio signals when you connect 1. a digital component such as a receiver (amplifier) having a digital connector, 2. an audio component having a built-in decoder (Dolby Digital or DTS), 3. a DAT or MD via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord. For connection details, see page 13. You cannot adjust “DOLBY DIGITAL,” “DTS” and “48kHz/96kHz PCM” if you set “DIGITAL OUT” to “OFF.”

AUDIO SETUP	
AUDIO ATT:	OFF
AUDIO DRC:	STANDARD
AUDIO FILTER:	SHARP
DOWNMIX:	DOLBY SURROUND
DIGITAL OUT:	ON
DOLBY DIGITAL:	D-PCM
DTS:	OFF
48kHz/96kHz PCM:	48kHz/16bit
To set, press     , then ENTER .	
To quit, press DISPLAY .	

■ DOLBY DIGITAL

Selects the Dolby Digital signals to be output via the DIGITAL OUT OPTICAL and COAXIAL connectors.

- **D-PCM** (Downmix PCM): when the player is connected to an audio component lacking a built-in Dolby Digital decoder. If you play Dolby Digital sound tracks, the output audio signals are mixed down to 2 channels. You can select whether the signals conform to Dolby Surround (Pro Logic) or not by making adjustments to the “DOWNMIX” item in “AUDIO SETUP.”
- **DOLBY DIGITAL**: 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

Outputs the DTS signal from the DIGITAL OUT OPTICAL and COAXIAL connectors.

- **OFF**: when the player is connected to an audio component lacking a built-in DTS decoder.
- **ON**: 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 and word length of the audio signal to be output via the DIGITAL OUT OPTICAL and COAXIAL connectors.

- **48kHz/16bit**: The audio signals of DVDs are always converted to 48 kHz/16 bit.
- **96kHz/24bit**: All types of signals including 96 kHz/24 bit 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.

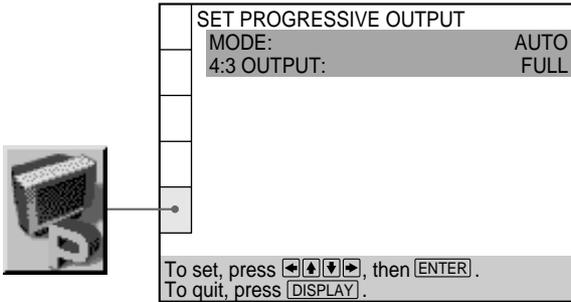
Note

If you select “96kHz/24bit” when a receiver (amplifier) which cannot accept 96 kHz is connected to the player, no sound or a loud noise will come out from the speakers.

Adjusting the Progressive video signal (SET PROGRESSIVE OUTPUT)

You can fine-tune the Progressive (480p) video signal output when you have selected "PROGRESSIVE" in "COMPONENT OUT" of the "CUSTOM SETUP" display and connect the player to the TV that be able to accept the video signal in progressive format (480p). The default settings are underlined.

Select "SET PROGRESSIVE OUTPUT" in the setup display.



Note

If you select "PROGRESSIVE" in spite of you connect the player to a TV that cannot accept the signal in progressive format, the image quality will deteriorate. In this case, set SCAN SELECT switch on the back panel of the player to "INTERLACE." Then set "COMPONENT OUT" to "INTERLACE" after you can see the TV screen correctly, and set SCAN SELECT to "SELECTABLE."

■ MODE (Conversion Modes)

DVD software can be divided into two types: film based software and video based software. Video based software is derived from TV, such as dramas and sit-coms, and displays images at 30 frames/60 fields per second. Film based software is derived from film and displays images at 24 frames per second. In order for these images to appear natural on your screen when output in PROGRESSIVE mode (60 frames per second), the progressive video signal needs to be converted to match the type of software that you are watching. For more information about conversion modes, see "Progressive Conversion methods of Film Based and Video Based Software."

- **AUTO:** This will automatically detect if you are playing Film based or Video based software and convert the signal to the appropriate mode.
- **VIDEO:** This will convert the output signal for Video based software, regardless of the type of software that you are playing.

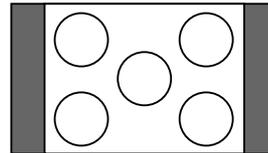
Notes

- Some DVD software contains both Video and Film. For instance, DVDs of movies may contain the movie taken on film, and a "Making of" sequence taken on video.
- If you select "VIDEO" and play back a DVD that contains Film based software, sections of images may be unclear.
- When you select "AUTO," sections of images may become unclear. This happens when the output signal tag (progressive/interlace) is not correct on the software. If this happens, set the conversion mode to "VIDEO."

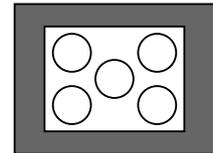
■ 4:3 OUTPUT

Adjust this when you watch progressive signals on a standard 4:3 aspect ratio television. If you can change the aspect ratio on your progressive format (480p) compatible TV, change the setting on your TV, not the player.

- **FULL:** when you can change the aspect ratio on your TV.
- **NORMAL:** when you cannot change the aspect ratio on your TV. A 16:9 aspect ratio signal will be shown with black bands on left and right sides of the image, and a 4:3 aspect ratio signal will be shown with black bands on all sides of the image.



16:9 aspect ratio TV



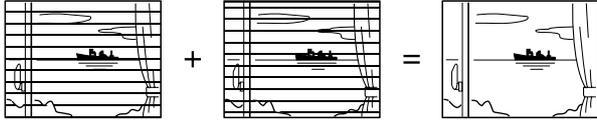
4:3 aspect ratio TV

Progressive Conversion Methods of Film Based and Video Based Software

This player converts video based software and film based software in the following manner.

Video based software conversion

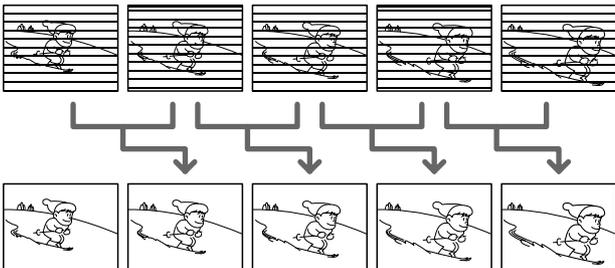
Video shows an image by alternately displaying every other line of an image (field) at 30 frames (60 fields) per second (Interlace format).



The Interlace format displays 30 frames (60 fields) per second by displaying every other line of the image, causing scanning lines to appear across the image. Furthermore, since only half of the image is shown at once, the amount of information contained in an image is limited.

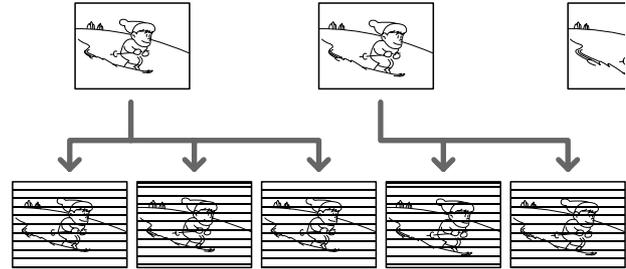


The Progressive format displays 60 entire frames per seconds. The player accomplishes this by converting each field into a frame by using either a field-based conversion method or a frame-based conversion method. The appropriate method is automatically selected by the player according to the movement of the images on the screen. If the movement on the screen is slow, the frame-based conversion method makes borrows adjacent field information to fill in the missing information. If the movement on the screen is rapid, the field-based conversion method creates the missing information by predicting the movement of the images on the screen from field to field. The end result is an image that is higher in quality when compared to the Interlace format.

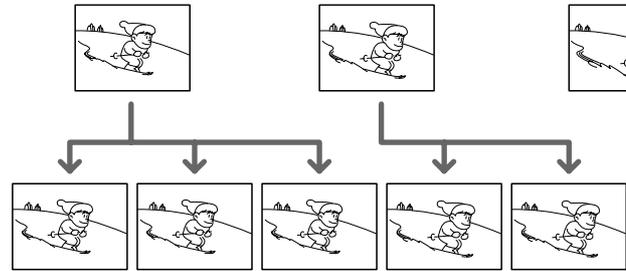


Film based software conversion

Film shows an image by displaying an entire image at 24 frames per second. When you watch a film on television, the television displays every other line of the frame as a field, thus reducing information level and the clarity of the film image.



This player solves this problem by increasing the speed at which the frames are displayed, consecutively showing 3 identical frames followed by 2 identical frames in the time that it normally takes to show 2 consecutive frames. The end result is that the 24 frames per second are increased to 60 frames per second, which is the speed at which Progressive video signals are shown.

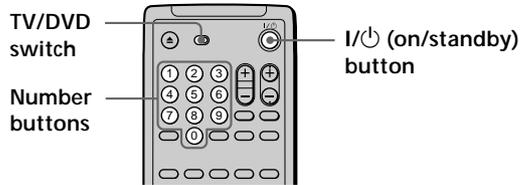


This not only allows film to be shown in a frame based format, it also increases the clarity and sharpness which is unique to Progressive format images.

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

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

Controlling TVs with the remote



- 1 Slide the TV/DVD switch to TV.
- 2 Hold down I/⏻, and enter your TV's manufacturer's code (see the table) using the number buttons. Then release 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.

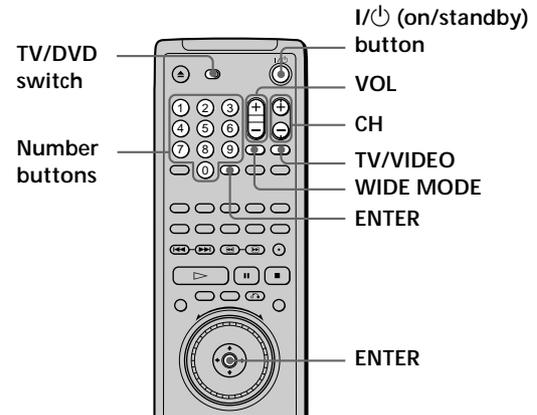
Manufacturer	Code number	Manufacturer	Code number
Sony (default)	01	Panasonic	06,19
Akai	04	Philco	03,04
AOC	04	Philips	08
Centurion	12	Pioneer	16
Coronado	03	Portland	03
Curis-Mathes	12	Quasar	06,18
Daytron	12	Radio Shack	05,14
Emerson	03,04,14	RCA	04,10
Fisher	11	Sampo	12
General Electric	06, 10	Sanyo	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

Notes

- 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 the TV

You can control your TV using the buttons below. When you set the TV/DVD switch to TV, you can also control the number, I/⏻ and ENTER buttons.



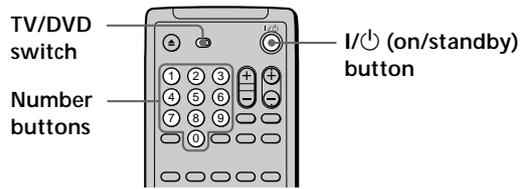
By pressing	You can
I/⏻	Turn the TV on or off
TV/VIDEO*	Switch the TV's input source between the TV and other input sources
VOL	Adjust the volume of the TV
CH*	Select the channel of the TV
WIDE MODE*	Switch to or from the wide mode of a Sony Wide TV.
Number buttons and ENTER	Select the channel of the TV

* These buttons also work when the TV/DVD switch is set to DVD.

Note

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

Controlling AV receivers (amplifiers) with the remote



- 1 Slide the TV/DVD switch to DVD.
- 2 Hold down I/⏻, and enter your AV receiver's manufacturer's code (see the table) using the number buttons. Then release I/⏻.

Code numbers of controllable AV receivers (amplifier)

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 receiver (amplifier).

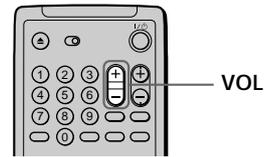
Manufacturer	Code number
Sony	91 (default), 89
Denon	84, 85, 86
Kenwood	92, 93
Onkyo	81, 82, 83
Pioneer	99
Sansui	87
Technics	97, 98
Yamaha	94, 95, 96

Notes

- 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 the AV receiver (amplifier)

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



Note

Depending on the AV receiver (amplifier), you may not be able to control your AV receiver (amplifier).

Additional Information

Troubleshooting

If you experience any of the following difficulties while using the player, use this troubleshooting guide to help remedy the problem. 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.

- ➔ Check that the player is connected securely.
- ➔ The video connecting cord is damaged. Replace it with a new one.
- ➔ Make sure you connect the player to the video input connector on the TV. (page 10)
- ➔ Make sure you turn on the TV.
- ➔ Make sure you select the video input on the TV so that you can view the pictures from the player.

Picture noise appears.

- ➔ Clean the disc.
- ➔ If the video signal from your DVD player has to go through your VCR to get to your TV, the copy-protection applied to some DVD programs could affect picture quality. If you still experience problems after checking your connections, please try connecting your DVD player directly to your TV's S-input, if your TV is equipped with this input. (page 10)
- ➔ You have selected "PROGRESSIVE" in "COMPONENT OUT" even though your TV cannot accept the signal in progressive format. In this case, set the SCAN SELECT switch on the back panel of the player to "INTERLACE." Then set "COMPONENT OUT" to "INTERLACE" after you can see the TV screen correctly, and set SCAN SELECT to "SELECTABLE."
- ➔ Even if your TV is compatible with progressive format (480p) signals, the image may be affected when you set "COMPONENT OUT" to "PROGRESSIVE." In this case, set "COMPONENT OUT" to "INTERLACE."

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

- ➔ The aspect ratio is fixed on your DVD.

Sound

There is no sound.

- ➔ Check that the player is connected securely.
- ➔ The audio connecting cord is damaged. Replace it with a new one.
- ➔ Make sure you connect the player to the audio input connectors on the receiver (amplifier). (page 12)
- ➔ Make sure you turn on the TV and the receiver (amplifier).
- ➔ Make sure you select the appropriate input on the receiver (amplifier) so that you can listen to the sound from the player.
- ➔ The player is in pause mode or in Slow-motion Play mode. Press ▷ to return to normal play mode.
- ➔ The player is in fast forward or fast reverse mode. Press ▷ to return to normal play mode.
- ➔ Check the speaker connections and setting (page 15). Refer to the operating manual of your receiver (amplifier).
- ➔ If you use the DIGITAL OUT connectors, set "DIGITAL OUT" to "ON" in the setup display. Otherwise no sound will come from the DIGITAL OUT connectors. (page 60)
- ➔ SACD audio signals are not output from the DIGITAL OUT OPTICAL or COAXIAL connectors.

Sound is noisy.

- ➔ Clean the disc.
- ➔ When you play a CD with DTS sound tracks, noise will come from any connector other than the DIGITAL OUT OPTICAL or COAXIAL connector. (page 19)

Sound distortion occurs.

- ➔ In the setup display, set "AUDIO ATT" in "AUDIO SETUP" to "ON." (page 60)

The sound loses its stereo effect when you play a VIDEO CD or a CD.

- ➔ Set "AUDIO" to "STEREO" in the Control Menu display. (page 35)
- ➔ Make sure you connect the player correctly. (pages 10, 12, 14)

Operation

The remote does not function.

- ➔ Remove any obstacles between the remote and the player.
- ➔ Use the remote near the player.
- ➔ Point the remote at the remote sensor  on the player.
- ➔ Replace all of the batteries in the remote with new ones if they are weak.

The disc does not play.

- ➔ There is no disc inside ("Insert disc." appears on the TV screen).
Insert a disc.
- ➔ Insert the disc correctly with the playback side facing down on the disc tray.
- ➔ Clean the disc.
- ➔ The player cannot play CD-ROMs, etc. (page 5)
Insert a DVD, a VIDEO CD, or CD.
- ➔ Check the region code of the DVD. (page 5)
- ➔ Moisture has condensed inside the player. Remove the disc and leave the player turned on for about half an hour. (page 8)

The player does not play from the beginning when playing a disc.

- ➔ Program Play, Shuffle Play, Repeat Play or A-B Repeat Play has been selected. Press CLEAR. (pages 45 through 49)
- ➔ Resume Play has been selected.
Press ■ on the front panel or on the remote before you start playing. (page 23)
- ➔ A title menu or a DVD menu automatically appears on the TV screen when you play your DVD, or a setup display automatically appears on the TV screen when you play your VIDEO CD with PBC functions.

The player starts playing the disc automatically.

- ➔ The DVD features the auto playback function.
- ➔ "AUTO PLAY" in "CUSTOM SETUP" is set to "TIMER." (page 56)

Playback stops automatically.

- ➔ The disc may contain an auto pause signal. While playing such a disc, the player stops playback at the signal.

Troubleshooting

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.

Messages do not appear on the TV 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 53)

The language for the sound track cannot be changed when you play a DVD.

- ➔ Multilingual tracks are not recorded on the DVD.
- ➔ Changing the language for the track is prohibited on the DVD.

The subtitle language cannot be changed when you play a DVD.

- ➔ Multilingual subtitles are not recorded on the DVD.
- ➔ Changing the language for the subtitles is prohibited on the DVD.

The subtitles cannot be turned off when you play a DVD.

- ➔ Depending on the DVD, you may not be able to turn the subtitles off.

The angles cannot be changed when you play a DVD.

- ➔ Multi-angles are not recorded on the DVD.
- ➔ Change the angles when "ANGLE" appears on the front panel display. (page 37)
- ➔ Changing the angles is prohibited on the DVD.

The player does not operate properly.

- ➔ Static electricity, etc., may affect the player's operation.
Press POWER on the player to turn the player off and then on again.

Nothing is displayed on the front panel display.

- ➔ In the set up display, "DIMMER" in "CUSTOM SETUP" is set to "OFF."
Press FL ON/OFF on the remote, or set "DIMMER" to any setting other than "OFF." (page 56)

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

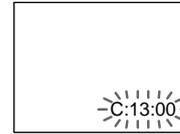
- ➔ The self-diagnosis function was activated. See the table on page 69.

The disc tray does not open and "LOCKED" is displayed on the front panel display.

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

Self-diagnosis function

When the self-diagnosis function activates to prevent the player from malfunctioning, a five-character service number (combination of a letter and digits) flashes on the screen and on the front panel display. In this case, check the following table.



First three characters	Cause and/or Corrective Action
C13	<ul style="list-style-type: none">• The disc is dirty. ➔ Clean the disc with a cleaning cloth. (page 8)
C31	<ul style="list-style-type: none">• The disc is not inserted correctly. ➔ Open the disc tray and insert the disc correctly.
Exx (xx is any number)	<ul style="list-style-type: none">• To prevent a malfunction, the player has performed the self-diagnosis function. ➔ When you contact your Sony dealer or local authorized Sony service facility, give the 5-character service number. (example: E:61:10)

Specifications

SACD/DVD player

Laser Semiconductor laser
 Signal format system NTSC

Audio characteristics

Frequency response
 DVD (PCM 96 kHz): 2 Hz to 44 kHz
 (-2 dB \pm 1 dB at 44 kHz)
 CD: 2 Hz to 20 kHz (\pm 0.5 dB)
 SACD: 2 Hz to 100 kHz
 (-3 dB \pm 1 dB at 50 kHz)

Signal to noise ratio
 more than 115 dB(DVD)

Harmonic distortion
 DVD: Less than 0.0015%
 CD: Less than 0.002%
 SACD: Less than 0.0015%

Dynamic range
 More than 103 dB
 (DVD)
 More than 103 dB (SACD)
 More than 99 dB (CD)

Wow and flutter
 Less than detected value
 (\pm 0.001% W PEAK)

Outputs

	Jack type	Output level	Load impedance
AUDIO OUT (1, 2)	Phono jacks	2 Vrms (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	-18 dBm	Wave length: 660 nm
DIGITAL OUT (COAXIAL)	Phono jack	0.5 Vp-p	75 ohms terminated
VIDEO OUT (1, 2)	Phono jacks	1.0 Vp-p	75 ohms, sync negative
S VIDEO OUT (1, 2)	4-pin mini DIN	Y: 1.0 Vp-p C: 0.286 Vp-p	75 ohms, sync negative 75 ohms terminated
COMPONENT VIDEO OUT (Y, PB, PR)	Phono jacks	Y: 1.0 Vp-p PB, PR: \pm 0.35 Vp-p	75 ohms, sync negative 75 ohms

General

Power requirements

120 V AC, 60 Hz

Power consumption

43 W

Dimensions (approx.)

430 \times 126 \times 398 mm (17 \times 5 \times 15^{11/16} in.)
 (w/h/d) incl. projecting parts

Mass (approx.)

12.6 kg (27 lb 12 oz)

Operating temperature

5 °C to 35 °C (41 °F to 95 °F)

Operating humidity

25 % to 80 %

Supplied accessories

See page 9.

Design and specifications 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.

Glossary

Bit rate (page 42)

Value indicating the amount of video data compressed in a DVD per second. The unit is Mbps (Mega bit per second). 1 Mbps indicates that the data per second is 1,000,000 bits. The higher the bit rate, the larger the amount of data. However, this does not always mean that you can get higher quality pictures.

Chapter (page 7)

Sections of a picture or a music piece on a DVD that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want.

Dolby Digital (pages 12, 61)

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 is recorded discretely and processed in digital.

Dolby Pro Logic (pages 12, 61)

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 (pages 12, 61)

Digital audio compression technology that Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. 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 processed in 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 dual-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD is 9.4 GB, and a dual-layer and double-sided DVD is 17 GB.

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 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 data is recorded in Dolby Digital or DTS, 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.

Film based software (page 63)

DVDs can be classified as Film based or Video based software. Film based DVDs contain the same images (24 frames per second) that are shown at movie theatres.

Interlace format (page 63)

Interlace format shows every other line of an image as a single "field" and is the standard method for displaying images on television. The even number field shows the even numbered lines of an image, and the odd numbered field shows the odd numbered lines of an image.

Multi-angle function (page 37)

Various angles for the scene (viewpoints of the video camera) are recorded on some DVDs.

Multilingual function (pages 16, 37, 53)

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

Parental Control (page 43, 57)

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, playback is completely prohibited, violent scenes are skipped or replaced with other scenes, and so on.

Playback Control (PBC) (page 25)

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

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

Progressive format (page 63)

Compared to the Interlace format that alternately shows every other line of an image (field) to create one frame, the Progressive format shows the entire image at once as a single frame. This means that while the Interlace format can show 30 frames (60 fields) in one second, the Progressive format can show 60 frames in one second. The overall picture quality increases and still images, text and horizontal lines appear sharper. This player is compatible with the 480 progressive format.

Super Audio CD (SACD) (page 6)

This audio format is based upon the current audio CD standards but includes a greater amount of information which provides higher quality sound. There are three types of discs: single layer, double layer and hybrid discs. The hybrid disc contains both standard audio CD and Super Audio CD information.

Title (page 7)

The longest section of a picture or a music piece on a DVD; a movie, etc., for a picture piece on video software; or an album, etc., for a music piece on audio software. Each title is assigned a title number enabling you to locate the title you want.

Track (page 7)

Sections of a picture or a music piece on a CD or VIDEO CD. Each track is assigned a track number enabling you to locate the track you want.

Video based software (page 62, 63)

DVDs can be classified as Film based or Video based software. Television dramas or sit-coms are examples of Video based software and display images at 30 frames (or 60 fields) per second.

VIDEO CD (page 7)

A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures. VIDEO CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional audio CDs.

There are 2 versions of VIDEO CDs.

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

This player conforms to both versions.

Language Code List

For details, see pages 53.

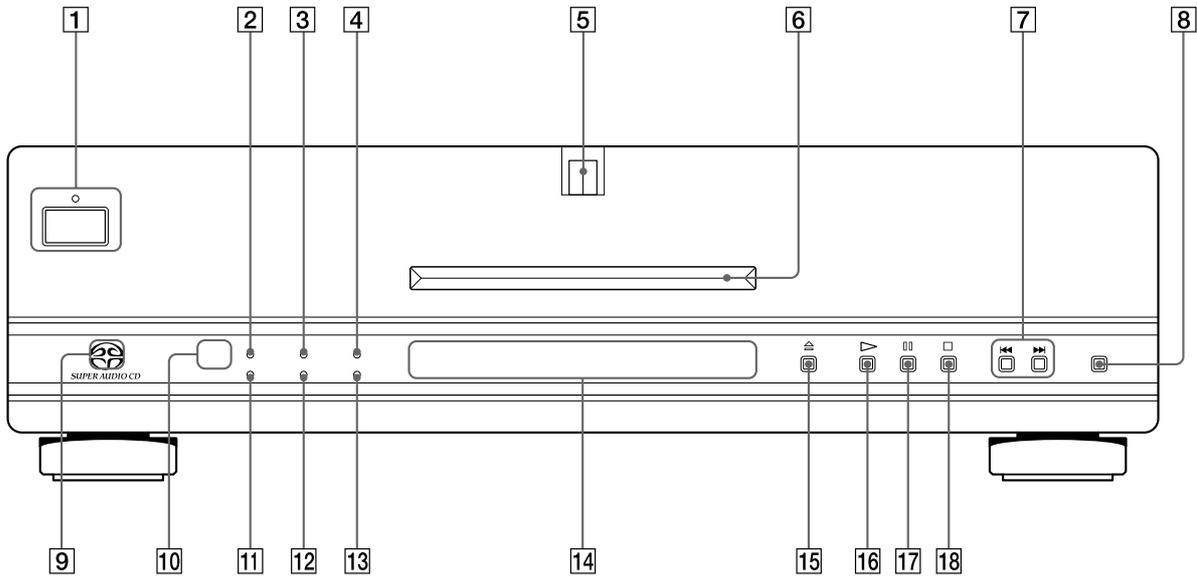
The language spellings conform to the ISO 639: 1988 (E/F) standard.

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

Index to Parts and Controls

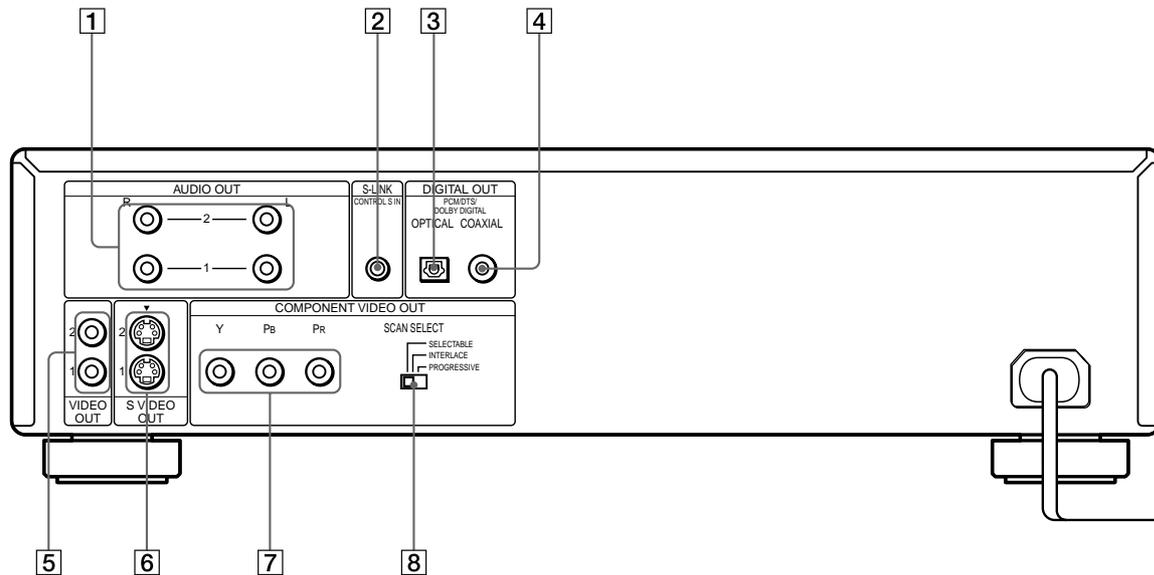
Refer to the pages indicated in parentheses for details.

Front Panel



- 1 POWER button and indicator (18)**
Disconnects the power of the player or places the player in standby mode.
- 2 VIDEO OFF indicator (20)**
Lights up when:
 - video output is set to off by using VIDEO ON/OFF on the remote
 - you press AUDIO DIRECT on the player.
- 3 PROGRESSIVE indicator (56)**
Lights up when the video signal is output in the progressive format from the COMPONENT VIDEO OUT connector.
- 4 SACD indicator (20)**
Lights up when SACD audio signals are played.
- 5 Disc indicator (18)**
Lights up while the disc is inserted.
- 6 Disc tray (18)**
Place a disc on the tray.
- 7 PREV ◀◀/▶▶ NEXT (previous/next) buttons (21)**
Press to go to the next chapter or track, or to go back to the previous chapter or track.
- 8 AUDIO DIRECT button and indicator (20)**
Cuts off the video and audio digital signal output. The indicator lights up when the video and audio signals are cut.
- 9 SACD logo indicator (22)**
Lights up when no disc is in the player, or when an SACD disc is inserted and SACD audio signals are played.
- 10  (remote sensor) (9)**
Accepts the remote control signals.
- 11 DIGITAL OFF indicator (20)**
Lights up when:
 - “DIGITAL OUT” is set to “OFF” in “AUDIO SETUP.”
 - you press AUDIO DIRECT on the player and cut the digital output.
- 12 FILM indicator (63)**
Lights up when film based DVD software is played during normal playback. When playing film based DVD software, it will blink if video based software is sensed, or may turn off if film and video software alternate. This is normal for DVDs that contain both film and video based software.
- 13 FL OFF indicator (56)**
Lights up when:
 - “DIMMER” in “CUSTOM SETUP” is set to “OFF.”
 - you press FL ON/OFF on the remote to turn off the front panel display.
- 14 Front Panel Display (26)**
Indicates the playing time, etc.
For details, see page 26.
- 15  OPEN/CLOSE button (18)**
Opens or closes the disc tray.
- 16  (play) button and indicator (18)**
Plays a disc. The indicator lights up when a disc is playing.
- 17  (pause) button and indicator (21)**
Pauses playing a disc. The indicator lights up when a disc is paused.
- 18  (stop) button (21)**
Stops playing a disc.

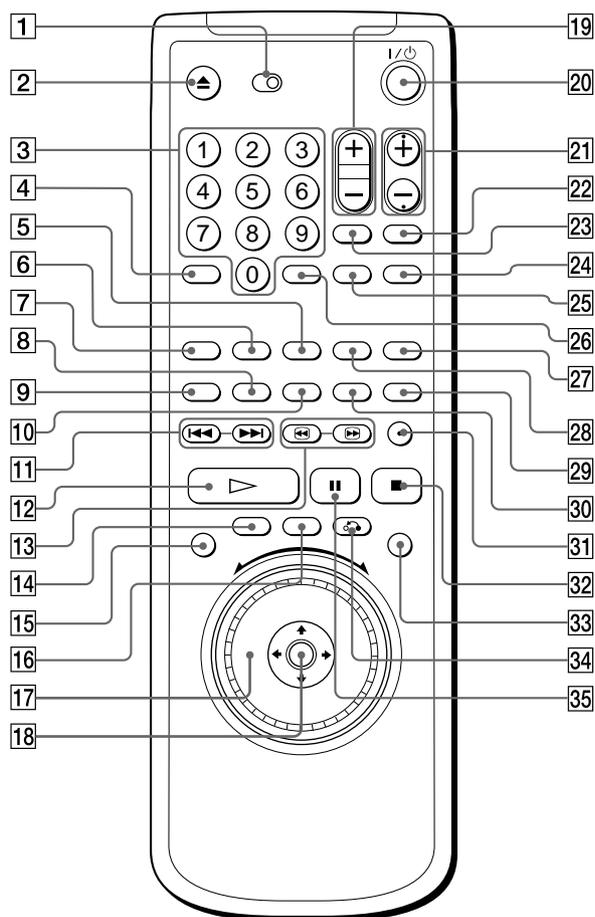
Rear Panel



- 1 AUDIO OUT R (right)/L (left) 1/2 connectors (10, 12)**
Connect to the audio input connector on your TV or receiver (amplifier).
- 2 S-LINK/CONTROL S IN connector (10)**
Connect to the S-link (Control S) connector on an external component.
- 3 DIGITAL OUT OPTICAL connector (12, 15)**
Connect to an audio component using an optical digital connecting cord. Take off the cap.
- 4 DIGITAL OUT COAXIAL connector (12, 15)**
Connect to an audio component using a coaxial digital connecting cord.
- 5 VIDEO OUT 1/2 connectors (10)**
Connect to the video input connector on your TV or monitor.
- 6 S VIDEO OUT 1/2 connectors (10, 12, 15)**
Connect to the S video input connector on your TV or monitor.

- 7 COMPONENT VIDEO OUT (Y, Pb, Pr) connectors (11)**
Connects to a monitor or projector having component video input connectors (Y, Pb, Pr) that conform to output signals from the player.
- 8 SCAN SELECT switch (62)**
Select the component video signal format .
 - SELECTABLE: changes the format according to the setting made in "COMPONENT OUT" of the "CUSTOM SETUP" display.
 - INTERLACE: fixes to the format to interlace format.
 - PROGRESSIVE: fixes to the format to progressive format (480p).

Remote



Additional Information

- 1 TV/DVD switch (64)**
Selects to control the player and receiver or the TV with the remote.
- 2 ▲OPEN/CLOSE button (21)**
Opens or closes the disc tray.
- 3 Number buttons**
Selects and executes the items or settings.
- 4 CLEAR button (45 through 49)**
Press to return to continuous play, etc.
- 5 REPEAT button (48)**
Each time you press this button, the "REPEAT" setting changes.
- 6 PROGRAM button (45)**
Press for "PROGRAM" playback.
- 7 SHUFFLE button (47)**
Each time you press this button, the "SHUFFLE" setting changes.
- 8 ANGLE button (38)**
Changes the angles when playing a DVD.
- 9 AUDIO button (35)**
Changes the sound while playing a DVD, CD or VIDEO CD.
- 10 SUBTITLE button (37)**
Changes the subtitles when playing a DVD.
- 11 ◀◀/▶▶IPREV/NEXT (previous/next) buttons (21)**
Press to go to the next chapter or track, or to go back to the previous chapter or track.
- 12 ▷PLAY button (18)**
Plays a disc.
- 13 ◀/▶ SEARCH buttons (21)**
While monitoring the picture, keep pressing to locate a point quickly.
- 14 TITLE button (24)**
Displays the title menu on the TV screen.
- 15 DISPLAY button (28)**
Displays the Control Menu display on the TV screen to set or adjust the items.
- 16 DVD MENU button (24)**
Displays the DVD menu on the TV screen.
- 17 Click shuttle (21)**
Changes the playback speed.
- 18 ◀/↑/↓/▶/ENTER buttons**
Selects and executes the items or settings.
- 19 VOL button (65)**
Changes the volume of the TV when the TV/DVD switch is set to TV, or the volume of the receiver (amplifier) when the switch is set to DVD.
- 20 I/⏻ (on/standby) button (18)**
Press to turn on the player or place it in standby mode after power is connected by pressing POWER on the player. When the TV/DVD switch is set to TV, this button turns your TV on or off.

- 21 CH button (65)**
Changes the channel of the TV.
- 22 TV/VIDEO button (65)**
Changes the video input of the TV.
- 23 WIDE MODE button (65)**
Changes the wide mode of the Sony TV.
- 24 VIDEO ON/OFF button (20)**
Turns on/off the video output.
- 25 FL ON/OFF button (56)**
Turns on/off the front panel display.
- 26 ENTER button**
Executes the items or settings.
- 27 PICTURE MEMORY button (55)**
Press to store a picture in memory.
- 28 A↔B button (49)**
Press to play the desired section of the software (A-B repeat playback).
- 29 SACD/CD button (20)**
Changes the playback layer between the HD (High density) layer and CD layer when you insert a hybrid SACD into the player.
- 30 TIME/TEXT button (32)**
Displays the playing time of the disc, etc., on the front panel display and the screen.
- 31 LIGHT button (21)**
Press to light up ▷PLAY, ■■PAUSE, ■STOP and DISPLAY buttons on the remote.
- 32 ■STOP button (21)**
Stops playing a disc.
- 33 JOG button / indicator (21)**
Press to play a disc frame by frame using the click shuttle.
- 34 ↶RETURN button (25, 29)**
Press to return to the previously selected screen, etc.
- 35 ■■PAUSE button (21)**
Pauses playing a disc.

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