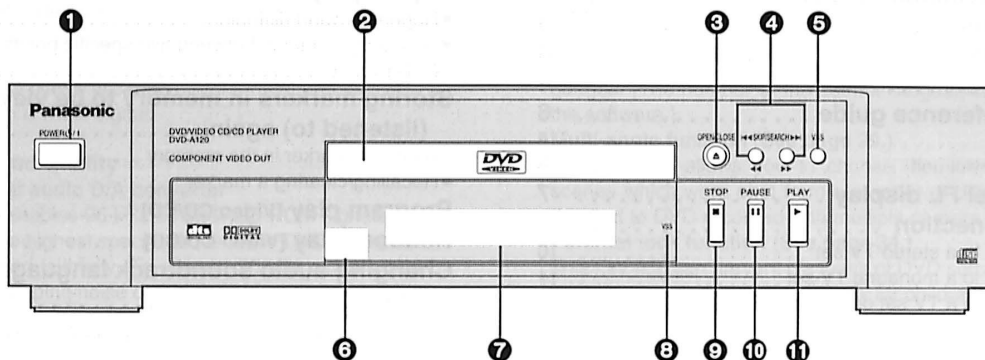


Control reference guide

Main unit

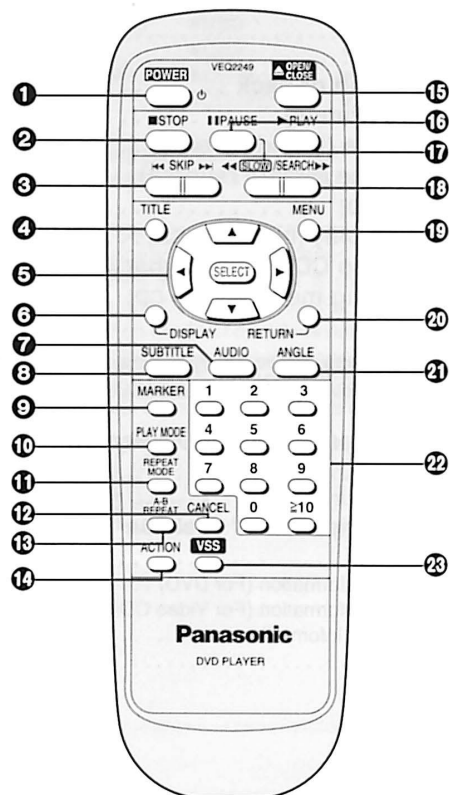


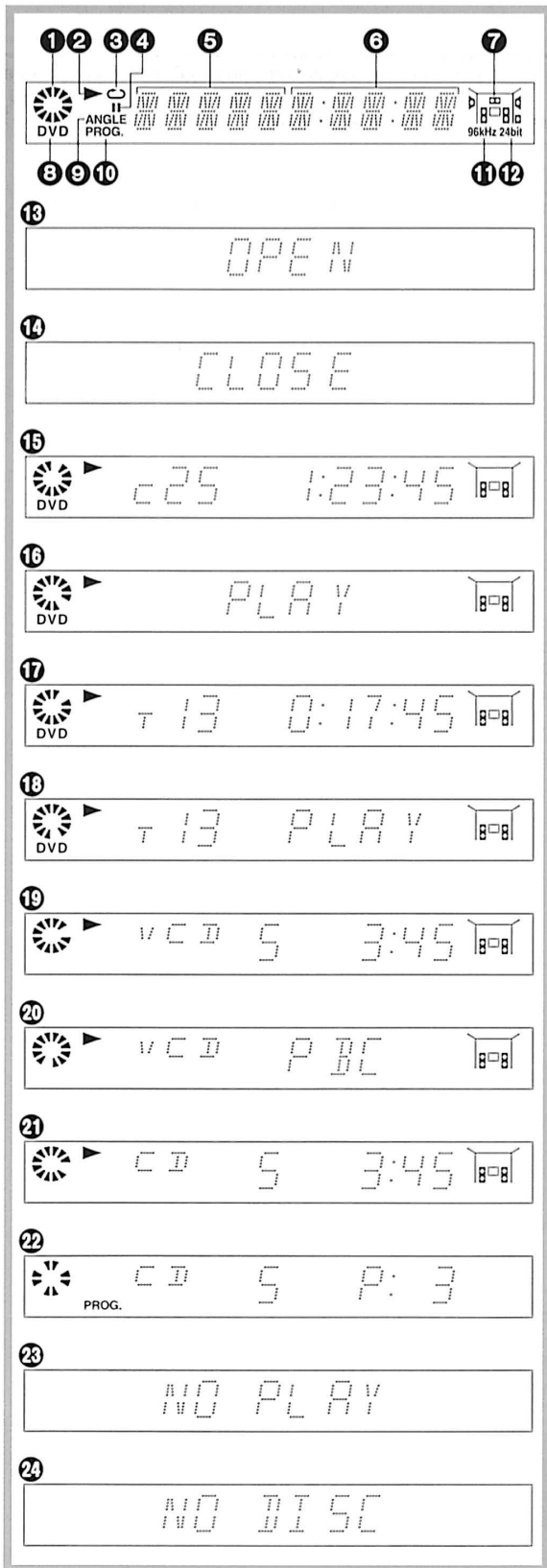
	Page
1 POWER button (⏻/⏻)	16
Press to switch the player from on to standby mode or vice versa. In standby mode, the player is still consuming a small amount of power.	
2 Disc tray	16
3 OPEN/CLOSE button (▲)	16
4 SKIP/SEARCH buttons (◀◀/▶▶)	17, 18, 19

5 VSS (Virtual Surround Sound) button	30
6 Remote control signal sensor	15
7 FL Display	7
8 VSS indicator	30
9 STOP button (■)	17
10 PAUSE button ()	18
11 PLAY button (▶)	17


Remote control unit

	Page
1 POWER button (⏻)	16
2 STOP button (■)	17
3 SKIP buttons (◀◀, ▶▶)	17, 18
4 TITLE button	17, 31
5 Cursor buttons (▲, ▼, ◀, ▶)/SELECT button	17
6 DISPLAY button	20
7 AUDIO button	28
8 SUBTITLE button	29
9 MARKER button	25
10 PLAY MODE button	26, 27
11 REPEAT MODE button	24
12 CANCEL button	20, 25, 27, 33
13 A-B REPEAT button	25
14 ACTION button	32
15 OPEN/CLOSE button (▲)	16
16 PAUSE button ()	18
17 PLAY button (▶)	17
18 SLOW/SEARCH buttons (◀◀, ▶▶)	19
19 MENU button	17, 19, 31
20 RETURN button	17, 20, 32
21 ANGLE button	29
22 Numeric buttons	17
• To select a 2-digit number Example: To select track 23 Press "≥10", "2" and then "3".	
23 VSS (Virtual Surround Sound) button	30





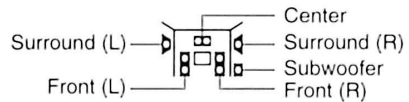
Front panel FL display

- 1**  Rotates during play.
Rotates fast clockwise or counterclockwise during rapid advance (reverse). (See page 19.)
Rotates slowly clockwise or counterclockwise during slow-motion play.
[DVD/Video CD] (See page 19.)



Illuminates in the stop mode.

- 2** Illuminates during playback.
Flashes when the RESUME function is ON.
(See page 17.)
- 3** Illuminates during repeat play. (See page 24.)
- 4** Illuminates in the still picture (pause) mode.
(See page 18.)
- 5** Indicates the title/chapter number. [DVD]
Indicates the track number. [Video CD/CD]
- 6** Indicates the elapsed playing time from the start of the title/track during play.
- 7** Indicates the audio channel information recorded in the disc being played back (e.g. 2ch or 5.1ch).



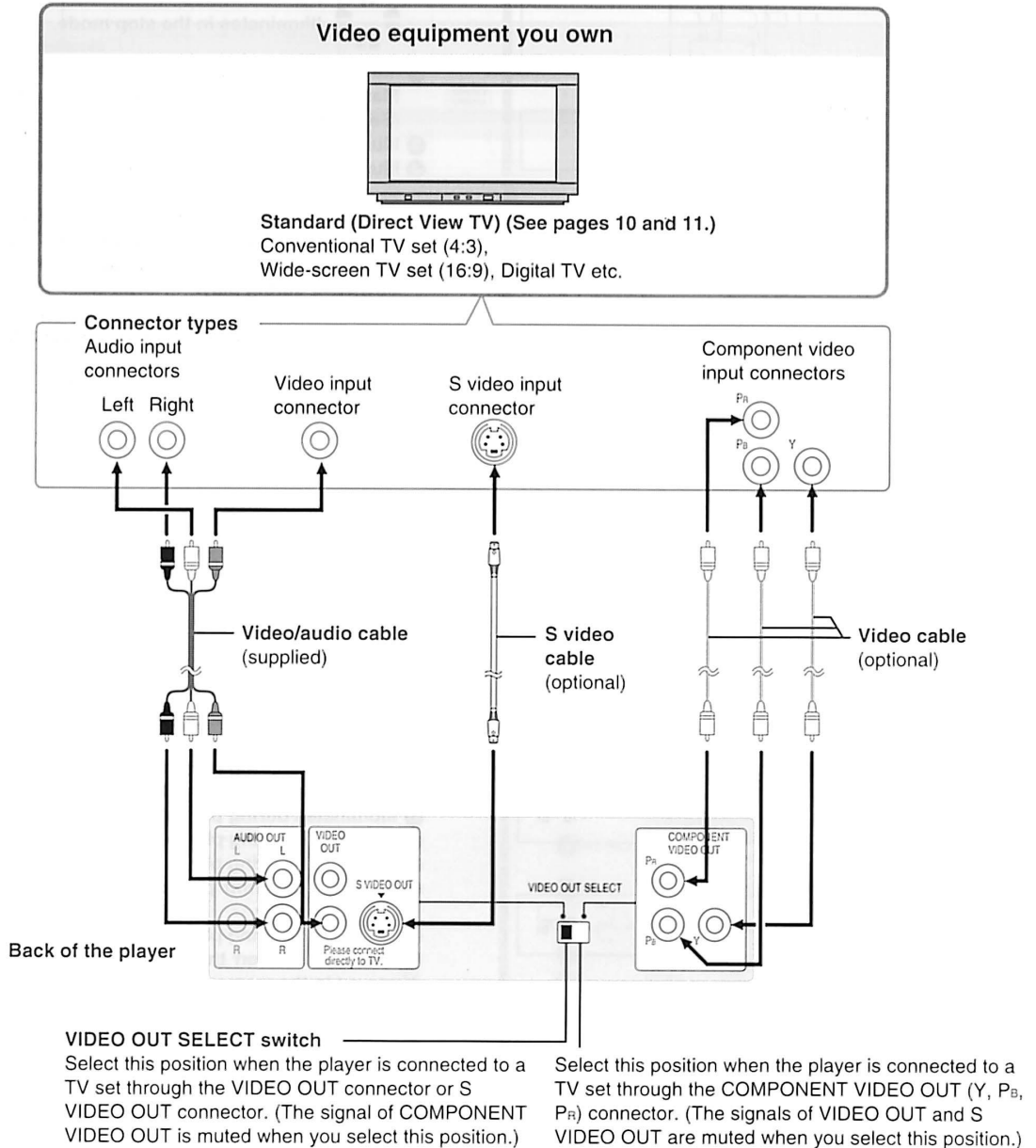
- 8** Illuminates when a DVD is loaded.
- 9** Illuminates when it is possible to switch the angle.
[DVD] (See page 29.)
- 10** Illuminates during program play. [Video CD/CD]
(See page 26.)
- 11** Illuminates when Linear PCM of 96 kHz sampling is being played.
- 12** Illuminates when Linear PCM of 24 bit is being played.
- 13** Illuminates when the disc tray is open.
- 14** Illuminates when the disc tray is being closed (retracted).
- 15** Illuminates during play of a DVD.
- 16** Illuminates during play of an interactive DVD.*
- 17** Illuminates during play of a Karaoke DVD.
- 18** Illuminates during play of an interactive Karaoke DVD.*
- 19** Illuminates during play of a Video CD.
- 20** Illuminates during play of a Video CD with playback control.
- 21** Illuminates during play of a CD.
- 22** Illuminates when the track number is selected to be stored in the memory (program play). [Video CD/CD]
(See page 27.)
- 23** Illuminates when playback is impossible.
- DVD for which playback is prohibited by the initial settings "2 Ratings". (See page 34.)
 - DVD with Region No. other than "1" or "ALL".
(See page 4.)
 - Disc of PAL system
- 24** Illuminates when no disc is loaded.

*An interactive DVD is DVD software which includes multiple angles, multiple plot endings, etc.

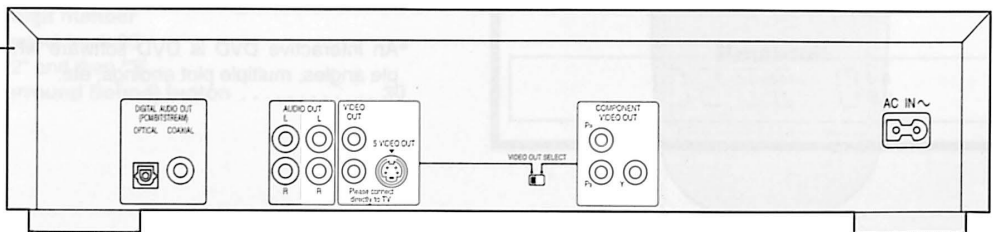
Basic connection

- Ensure that this player and other equipment to be connected are set to the standby mode or off, and disconnect the AC cords, before commencing connection.
- Do not block ventilation holes of any of the equipment and arrange them so that air can circulate freely.
- Read through the instructions before connecting other equipment.
- Ensure that you observe the color coding when connecting audio and video cables.

Refer to the following table for details on what models can be connected to this player, and what cables are required.



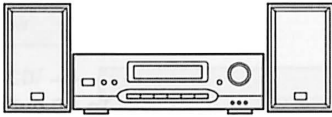
DVD/Video CD/
CD player



■ Optional audio connection

Audio equipment (Analog connection)

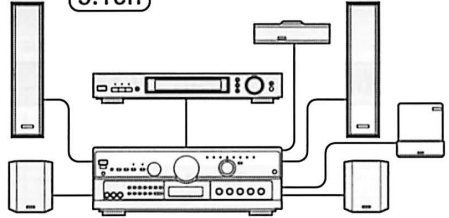
2ch



Audio equipment (See page 12.)

Audio equipment (Digital connection)

5.1ch



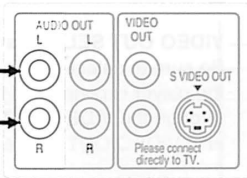
Decoder with Dolby Digital (AC-3)/dts and AV amplifier with 5.1ch input connectors (See page 14.)

Connector types

Audio input connectors



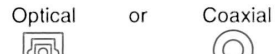
Audio cable (optional)



Back of the player

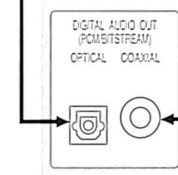
Connector types

Digital audio input connector



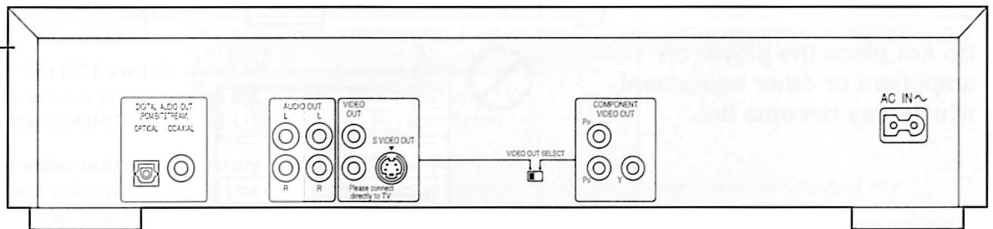
Optical digital audio cable (optional)

Coaxial audio cable (optional)



Back of the player

DVD/Video CD/ CD Player



Basic connection

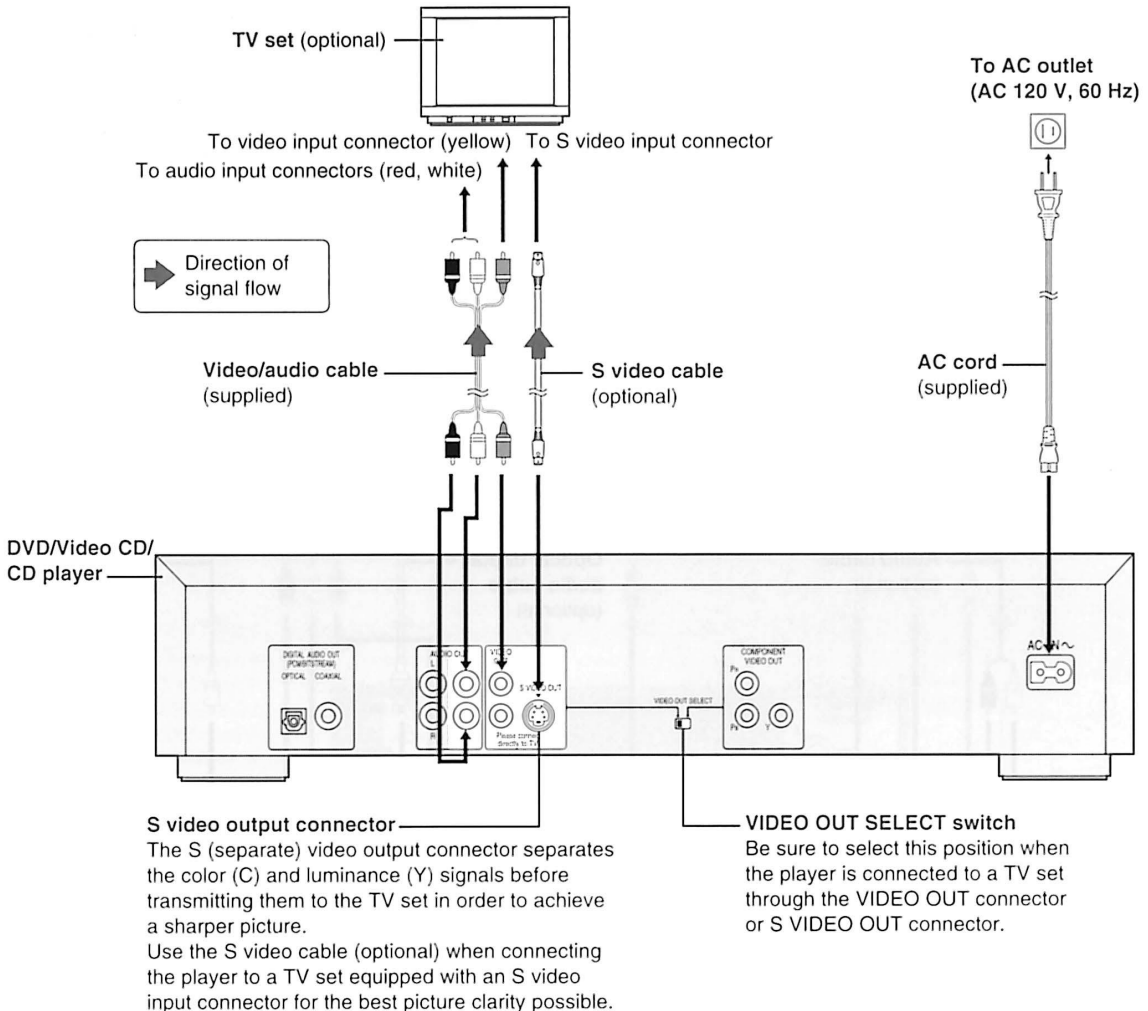
Notes:

- During DVD play, the TV volume may be at a lower level than during TV broadcasts, etc. If this is the case, adjust the volume to the desired level.
- Select the appropriate screen type at the initial setting "6 TV Aspect" according to your TV set (4:3/16:9). (See page 37.)

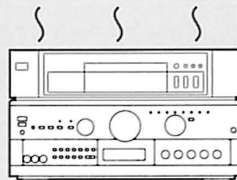
Connect Your DVD/Video CD/CD Player Directly To Your TV Set.

If the DVD/Video CD/CD player is connected to the TV through a video cassette recorder, the picture may not be played back normally with some DVDs. So we strongly recommend you not to connect the DVD/Video CD/CD player to your video cassette recorder when setting up your home entertainment system.

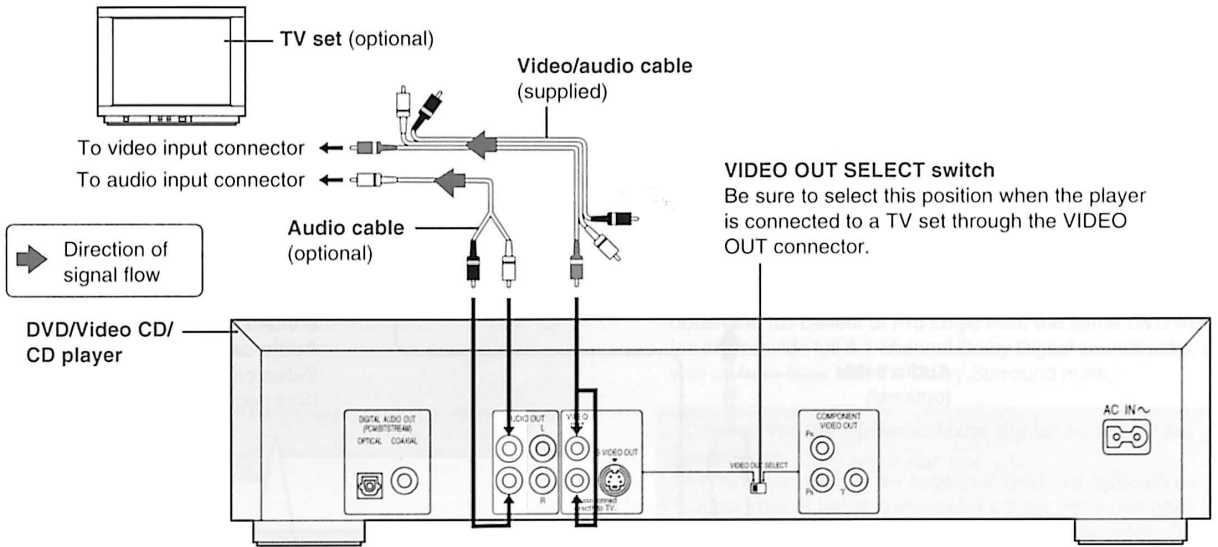
Connecting to a stereo TV set



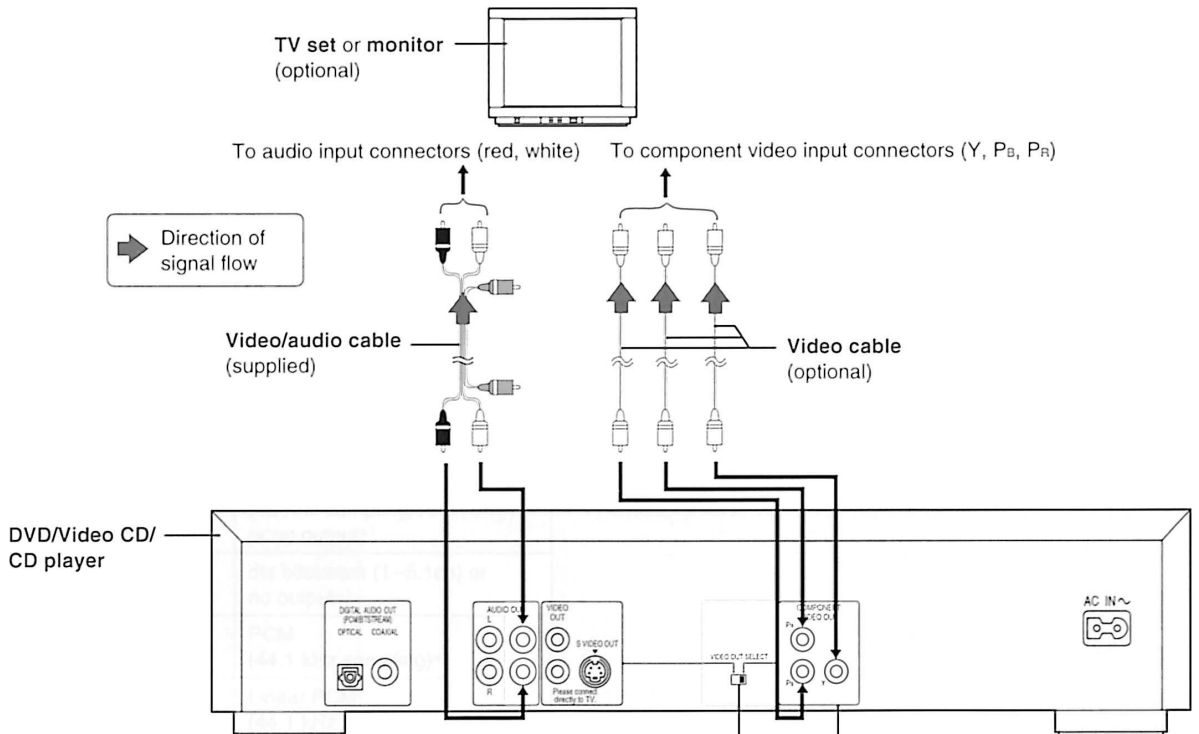
Do not place the player on amplifiers or other equipment which may become hot.



Connecting to a monaural TV set



Connecting to a TV set or monitor with component video input connectors



VIDEO OUT SELECT switch
Be sure to select this position when the player is connected to a TV set through the COMPONENT VIDEO OUT (Y, P_B, P_R) connector.

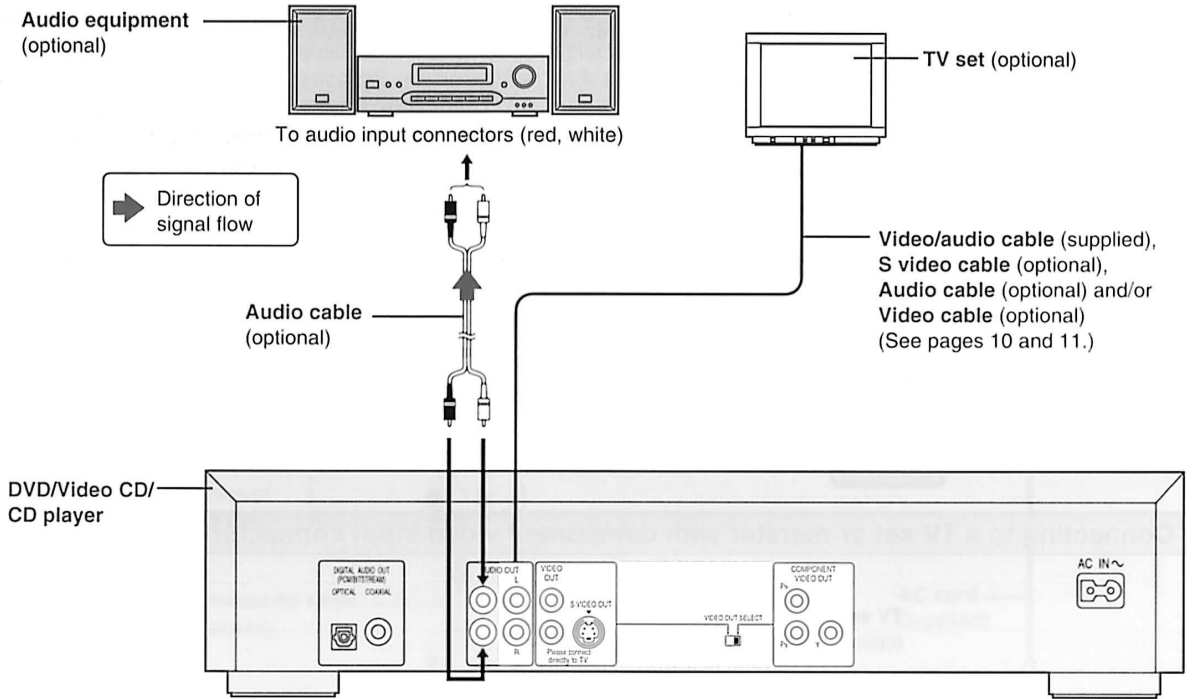
Component video output connectors (Y, P_B, P_R)

The component video output connector outputs the color difference signals (P_B, P_R) and luminance signal (Y) separately in order to achieve high fidelity in reproducing colors.

- The description of the component video input connectors may differ depending on the TV set or monitor (e.g. Y, P_B, P_R/Y, B-Y, R-Y/Y, C_B, C_R and so on). Refer to the instruction manual of your TV set for details.

Optional audio connections

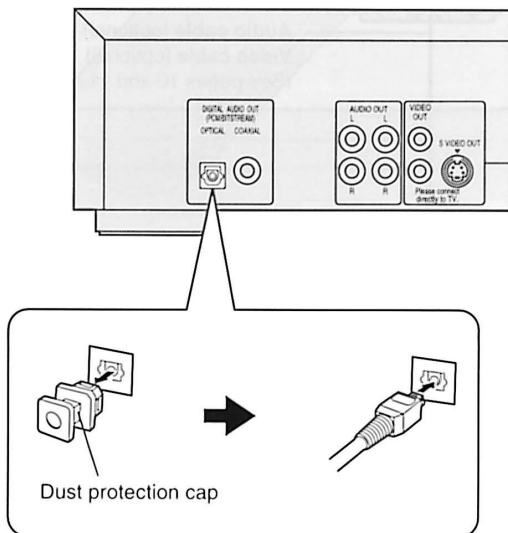
Connecting to audio equipment



Enjoying digital audio output from the digital audio output connector

Notes when connecting the optical digital audio cable (optional)

- Remove the dust protection cap from the optical digital audio output connector and connect the cable firmly so that the configurations of both the cable and the connector match.
- Keep the dust protection cap and, to protect against dust, always reattach the cap when not using the connector.



Concerning the audio output from the player's optical/coaxial digital audio output connector

Disc	Sound recording format	Optical/coaxial digital audio output from connector
DVD	Dolby Digital (AC-3)	Dolby Digital bitstream (1–5.1ch) or PCM (2ch) (48 kHz/16 bit) ^{*1 *2}
	Linear PCM (48/96 kHz 16/20/24 bit)	Linear PCM (2ch) (48 kHz sampling/16 bit only) or no output ^{*1}
	dts	dts bitstream (1–5.1ch) or no output ^{*1}
Video CD	MPEG 1	PCM (44.1 kHz sampling) ^{*2}
CD	Linear PCM	Linear PCM (44.1 kHz sampling)

^{*1}The type of audio output from the connector can be selected by "7 Digital Audio Output" of the initial settings. (See page 38.)

^{*2}Compressed sound converted to PCM will be output.

Note:

- Some dts decoders which do not support DVD-dts interface may not work properly with the DVD/Video CD/CD player.

For your reference:

- Dolby Digital (AC-3) is a digital sound compression technique developed by the Dolby Laboratories, Inc. Supporting 5.1-channel surround sound, as well as stereo (2-channel) sound, this technique enables a large quantity of sound data to be efficiently recorded on a disc.
- Linear PCM is a signal recording format used in a CD. While a CD is recorded in 44.1 kHz/16 bit, a DVD is recorded in 48 kHz/16 bit up to 96 kHz/24 bit.
- If you have a Dolby Pro Logic Surround decoder, you will obtain the full benefit of Pro Logic from the same DVD movies that provide full 5.1-channel Dolby Digital soundtracks, as well as from titles with the Dolby Surround mark.

Caution for the optical/coaxial digital audio output connector:

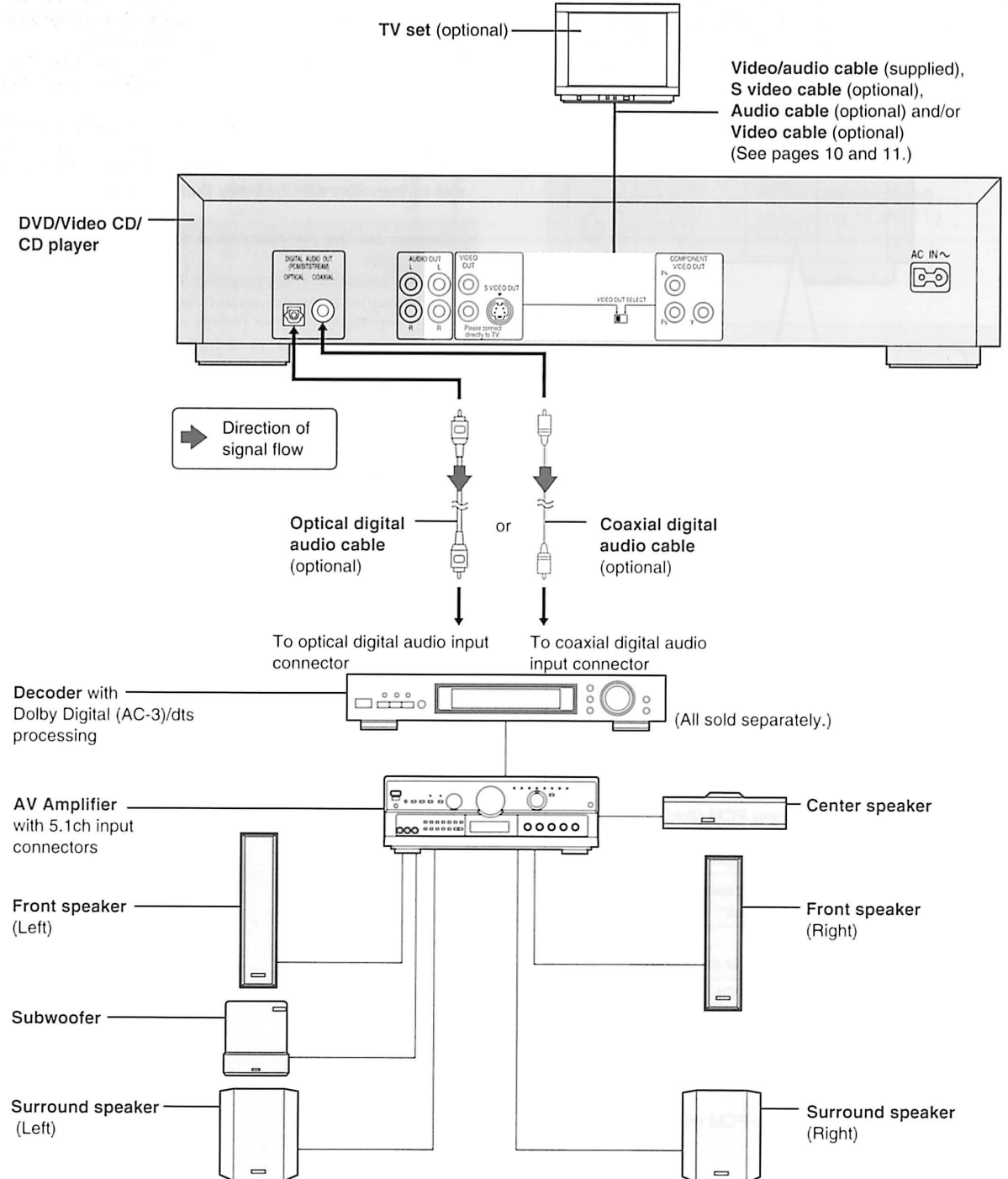
- When connecting an amplifier (with an optical/coaxial digital input connector) which does not contain the Dolby Digital (AC-3) or dts decoder, be sure to select "PCM" at "2 Dolby Digital" and "Off" at "3 dts" of the initial setting "7 Digital Audio Output". (See page 38.)
- Otherwise any attempt to play DVDs may cause such a high level of noise that it may be harmful to your ears and damage your speakers.
- Video CDs and CDs can be played as they would normally be played.

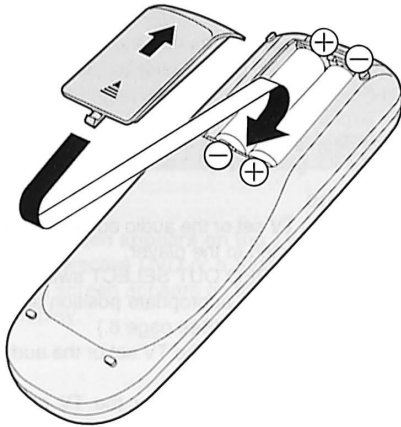
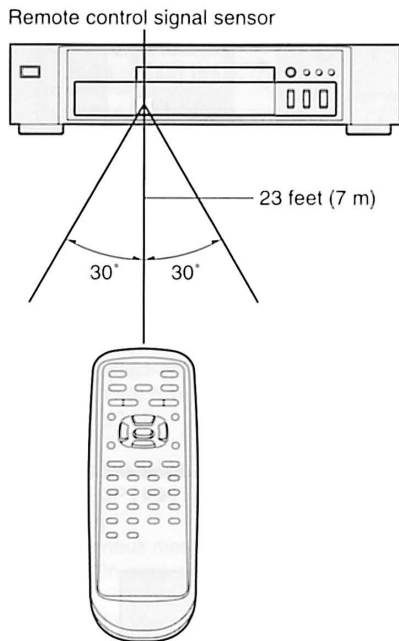
Manufactured under license from Dolby Laboratories. "Dolby", "AC-3", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. © 1992–1997 Dolby Laboratories, Inc. All rights reserved.

Optional audio connections

Connecting to a decoder with Dolby Digital (AC-3) or dts (digital theater systems) processing

When DVDs recorded in Dolby Digital or dts are played, Dolby Digital bitstream or dts bitstream is output from the player's OPTICAL digital audio output connector or COAXIAL digital audio output connector. When the player is connected to a Dolby Digital decoder or dts decoder, you can enjoy theater-quality audio in your home. [An optical digital audio cable or coaxial digital audio cable (both optional) is required when an optional Dolby Digital decoder or dts decoder is used.]



A**B**

Remote control unit preparation

Battery installation

Insert the batteries while observing the correct (+) and (-) polarities as illustrated at left.

Service life of batteries

- The batteries normally last for about one year although this depends on how often, and for what operations, the remote control unit is used.
- If the remote control unit fails to work, even when it is operated near the player, replace the batteries.
- Use size "AA" batteries.

Notes:

- Do not use rechargeable (Ni-Cd) batteries.
- Do not attempt to recharge, short-circuit, disassemble, heat or throw the batteries into a fire.
- Do not drop, step on or otherwise impact the remote control unit. This may damage the parts or lead to malfunction.
- Do not mix old and new batteries.
- If the remote control unit is not going to be used for a long time, remove the batteries. Otherwise, electrolyte may leak which may lead, not only to malfunctioning but also, to burns if contact is made with the electrolyte.
- Wipe away any electrolyte leaking inside the remote control unit, and install new batteries.
- If any electrolyte should come into contact with parts of your body, wash it off thoroughly with water.

Remote control operation range

Point the remote control unit from no more than about 23 feet (7 m) from the remote control sensor and within about 60° of the front of the player.

- The operating distance may vary according to the brightness of the room.

Notes:

- Do not point bright lights at the remote control sensor.
- Do not place objects between the remote control unit and the remote control sensor.
- Do not use this remote control unit while simultaneously operating the remote control unit of any other equipment.

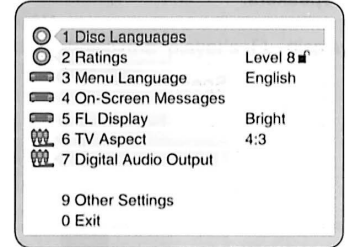
Initial settings

Once the initial settings have been completed, the player can always be operated under the same conditions (especially with DVD discs).

The settings will be retained in the memory, until the settings are changed, even after switching to standby mode.

Common procedures of initial settings

1 Press ACTION in the stop mode.



2 Press the cursor buttons (▲, ▼) to select the preferred item and press SELECT.

Each screen for setting the value is displayed.

- 1 Disc Languages (see page 33)
- 2 Ratings (see page 34)
- 3 Menu Language (see page 35)
- 4 On-Screen Messages (see page 36)
- 5 FL Display (see page 37)
- 6 TV Aspect (see page 37)
- 7 Digital Audio Output (see page 38)
- 9 Other Settings (see page 40)

3 Press the cursor buttons (▲, ▼) to select the preferred value and press SELECT.

- Some items require additional steps. (See the respective page.)

Setting is finished and the initial settings screen is displayed.

To cancel during setup operation

Press RETURN or select "0". (The previous screen is displayed.)

To clear the initial settings screen

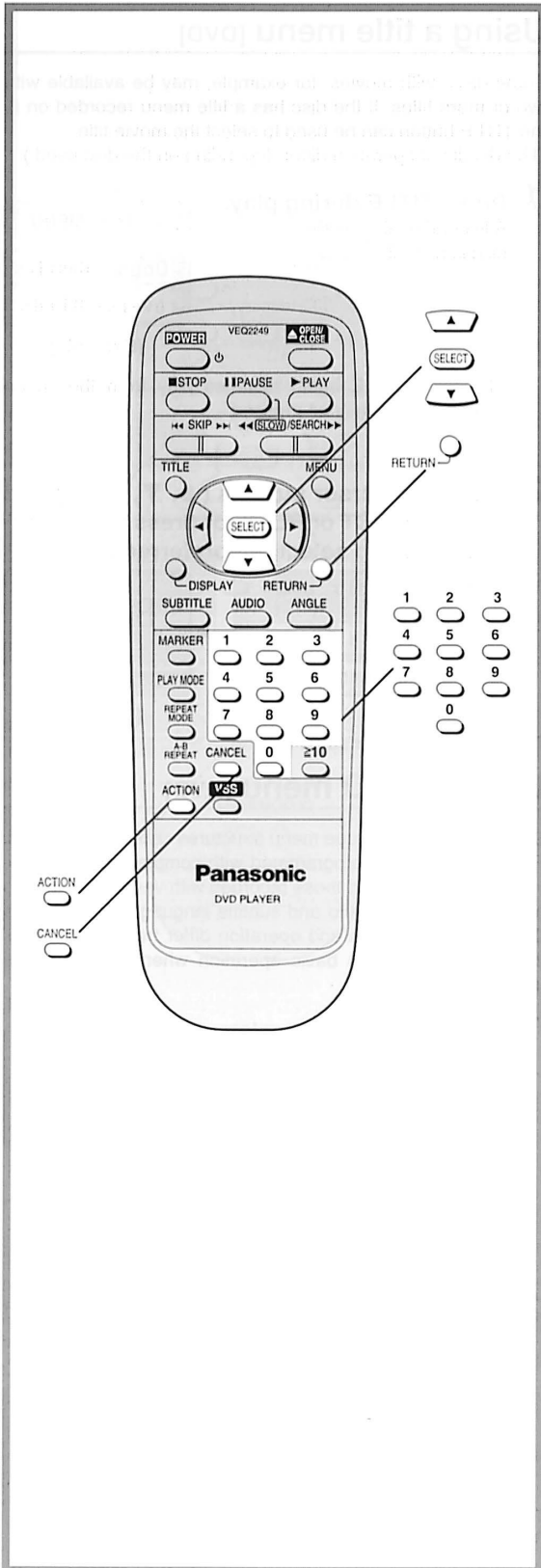
Press the cursor buttons (▲, ▼) to select "0" and press SELECT. (Pressing ACTION or RETURN also clears the initial settings screen.)

Notes:

- There is no No. 8 in the initial settings menu of this player.
- After the player is set to the "Lock All" setting in "2 Ratings", none of the initial settings, including "2 Ratings", can be changed if the DVD disc is left inside the player. In this case, remove the disc, and unlock the player.

For your reference:

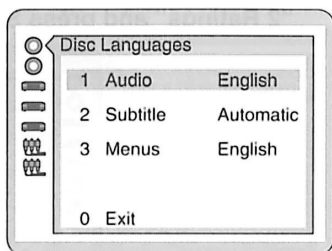
- The numeric buttons can also be used for selecting items or values instead of the cursor buttons (▲, ▼); in this case, pressing SELECT is not necessary.



Selecting disc languages [DVD]

This is to select the audio soundtrack language, subtitle language and the language used in title menus or DVD menus which will always be used for every disc to be played back.

- 1 At the initial settings screen (on page 32) Press the cursor buttons (▲, ▼) to select "1 Disc Languages" and press SELECT.



- 2 Press the cursor buttons (▲, ▼) to select the preferred item and press SELECT.

- 1 **Audio:**
To select the audio soundtrack language.
- 2 **Subtitle:**
To select the subtitle language.
- 3 **Menus:**
To select the language used in title menus or DVD menus.

- 3 Press the cursor buttons (▲, ▼) to select the preferred language and press SELECT.

When "1 Audio" is selected

- 1 **English:** English is selected. (Factory preset)
- 2 **French/3 Spanish:**
Each language is selected.
- 4 **Original:** The original language of each disc will be selected.
- 5 **Other *****:** Another language can be selected. (Refer to the language codes on page 42. Press CANCEL if an incorrect language code is entered.)

When "2 Subtitle" is selected

- 1 **Automatic:** The same language selected for the "1 Audio" will be selected. (Factory preset)
 - If the language selected for the "1 Audio" is actually used during playback, the subtitles will not appear.
 - If another language is used during playback, the subtitles will appear in the language selected at the setup "1 Audio".
- 2 **English/3 French/4 Spanish:**
Each language is selected.
- 5 **Other *****:** Another language can be selected. (Refer to the language codes on page 42. Press CANCEL if an incorrect language code is entered.)

When "3 Menus" is selected

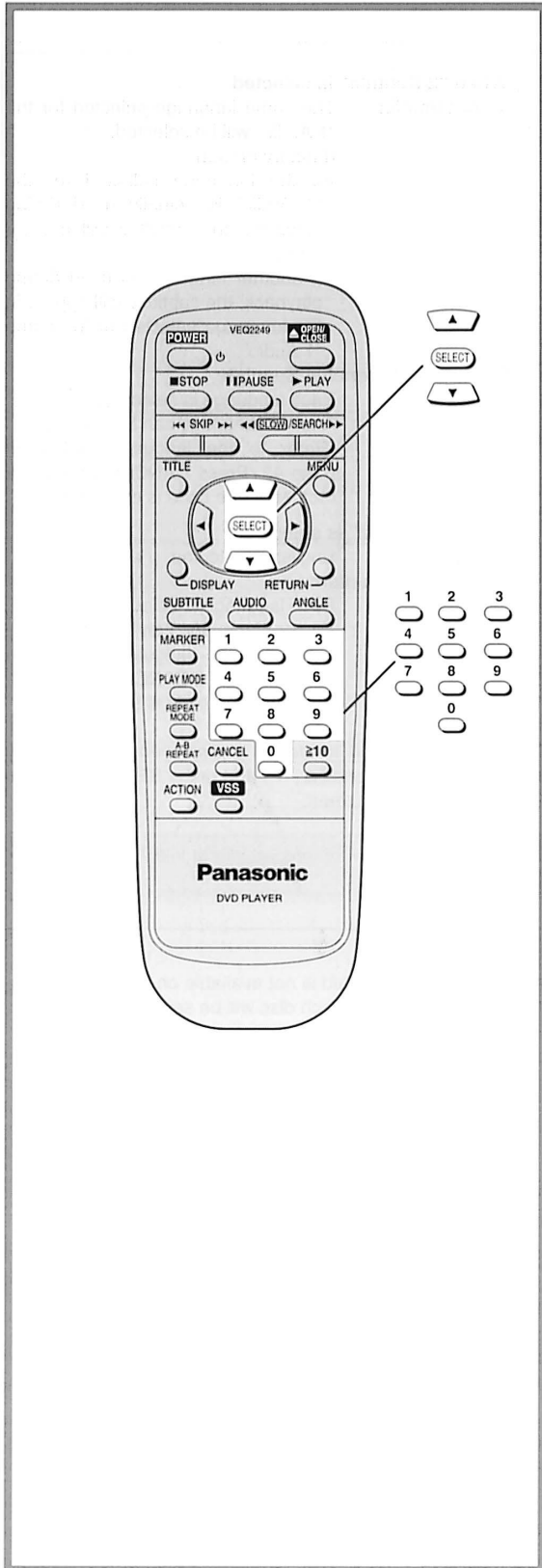
- 1 **English:** English is selected. (Factory preset)
- 2 **French/3 Spanish:**
Each language is selected.
- 4 **Other *****:** Another language can be selected. (Refer to the language codes on page 42. Press CANCEL if an incorrect language code is entered.)

The screen illustrated in step 1 is displayed. Select "0" by using the cursor buttons (▲, ▼) and press SELECT to return to the initial settings screen.

Also refer to "Common procedures of initial settings" on page 32.

Note:

- If the language selected is not available on the disc, the language designated by each disc will be selected.



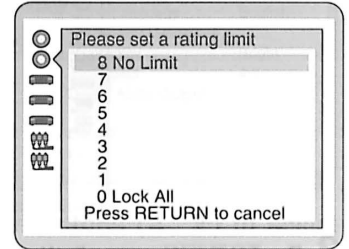
Initial settings

Selecting rating level [DVD]

This is to disable the playing of specified DVDs which are unsuitable for children.

- Some DVDs are encoded with a specific rating level. If the rating level of the disc is higher than that preset in the initial settings operation, playback of the disc will be prohibited.

- 1 At the initial settings screen (on page 32)
Press the cursor buttons (▲, ▼) to select "2 Ratings" and press SELECT.



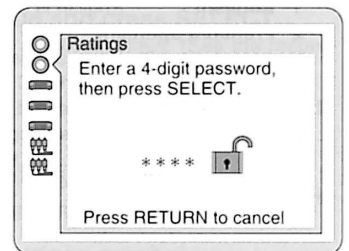
- 2 Press the cursor buttons (▲, ▼) to select the preferred level and press SELECT.

Level 8: All DVDs can be played back.
(Factory preset)

Level 7 to 2: DVDs for general audiences/children can be played back.
(DVDs for adults are prohibited.)

Level 1: DVDs for children can be played back.
(DVDs for adults/general audiences are prohibited.)

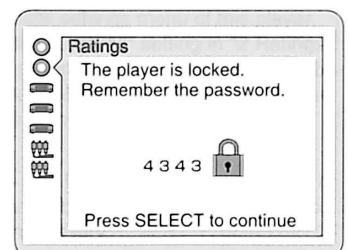
Level 0: Playback of all DVDs is prohibited (e.g. to prohibit playback of DVDs for adults which are not encoded with rating level information).



- 3 When level 7 or lower is selected
Input a 4-digit password by pressing the numeric buttons and press SELECT.

The lock symbol appears closed to show the rating is locked.

Example: "4343"
Do not forget your password.



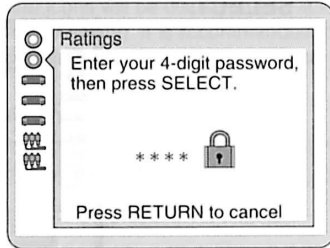
4 Press SELECT.

Setting is finished and the initial settings screen is displayed.

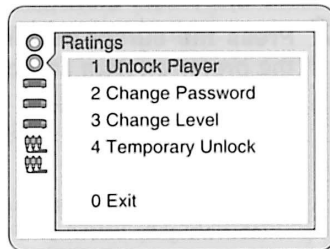
- The rating is locked. Any discs whose rating is higher than the setting cannot be played back unless the correct password is entered.

When the player is locked

The following screen appears when "2 Ratings" is selected at the initial settings screen.



1. Input a 4-digit password and press SELECT.



2. To unlock the player

Press "1" and then press SELECT.

To change the password

Press "2", enter a new 4-digit password and press SELECT, then press SELECT again.

To change the rating level

Press "3", select a new level by pressing the cursor buttons (▲, ▼), then press SELECT.

To unlock the player temporarily

Press "4" and then press SELECT.

- The rating is unlocked temporarily only for the current disc or only until the player is set to the standby mode.

To finish setting without changing the rating level

Press "0".

Setting is finished and the initial settings screen is displayed.

Also refer to "Common procedures of initial settings" on page 32.

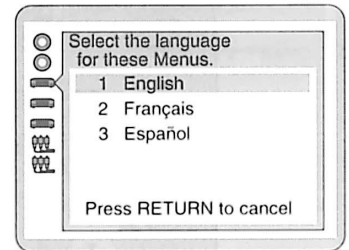
Note:

- Some discs may not be encoded with specific rating level information though its disc jacket says that it is for "adults". For those discs, the age restriction will not work.

Selecting language of On-Screen Display menu

This is to select the language to be used in the On-Screen Display menus which the player will show on the TV monitor.

- 1 At the initial settings screen (on page 32) Press the cursor buttons (▲, ▼) to select "3 Menu Language" and press SELECT.



- 2 Press the cursor buttons (▲, ▼) to select the preferred language and press SELECT.

- 1 English:

English is selected. (Factory preset)

- 2 Français/3 Español:

Each language is selected.

Setting is finished and the initial settings screen is displayed.

Also refer to "Common procedures of initial settings" on page 32.

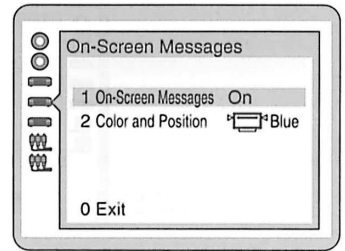


Initial settings

Selecting the display format of the On-Screen Display

You can select whether "Play", "Still" and other displays will be displayed or not, and the color and position of "Play", "Still" and other displays as well as On-Screen Menu Icons.

- 1** At the initial settings screen (on page 32) Press the cursor buttons (▲, ▼) to select "4 On-Screen Messages" and press SELECT.



- 2** Press the cursor buttons (▲, ▼) to select the preferred item and press SELECT.

- 1 On-Screen Messages:**

To select whether "Play", "Still" and other displays are displayed or not.

- 2 Color and Position:**

To select the color (Blue/Violet/Green) and position (above/slightly below) of "Play", "Still" and other displays as well as On-Screen Menu Icons.







- 3** Press the cursor buttons (▲, ▼) to select the preferred setting and press SELECT.

When "1 On-Screen Messages" is selected

- 1 On:** "Play", "Still" and other displays will always appear on the TV screen. (Factory preset)
- 2 Off:** "Play", "Still" and other displays will not appear on the TV screen.

When "2 Color and Position" is selected


The colors and positions are set as follows:

- 1**  Blue (Factory preset)
- 2**  Violet
- 3**  Green
- 4**  Blue
- 5**  Violet
- 6**  Green

The screen illustrated in step 1 is displayed. Select "0" by using the cursor buttons (▲, ▼) and press SELECT to return to the initial settings screen.

Also refer to "Common procedures of initial settings" on page 32.

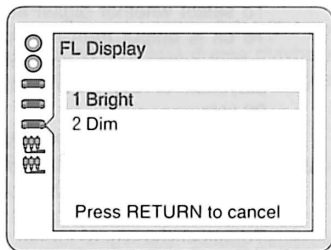
For your reference:

- When  is selected, "Play", "Still" and other displays as well as On-Screen Menu Icons will be displayed at a little lower position than the factory setting. It is recommended to choose this setting in such a case that the screen is only partially displayed.

Selecting the FL display brightness

This is to select the brightness of the player's FL display.

- 1 At the initial settings screen (on page 32)
Press the cursor buttons (▲, ▼) to select "5 FL Display" and press SELECT.



- 2 Press the cursor buttons (▲, ▼) to select the preferred item and press SELECT.

- 1 **Bright:**
The FL display will always be bright. (Factory preset)
- 2 **Dim:**
The FL display will always be dimmed.

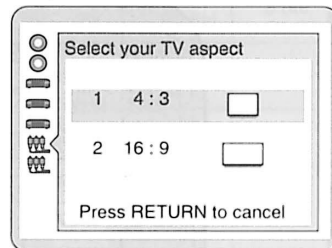
Setting is finished and the initial settings screen is displayed.

Also refer to "Common procedures of initial settings" on page 32.

Selecting TV screen type

Select the TV aspect, conventional size screen (4:3) or wide-screen (16:9), according to your TV set.

- 1 At the initial settings screen (on page 32)
Press the cursor buttons (▲, ▼) to select "6 TV Aspect" and press SELECT.



- 2 Press the cursor buttons (▲, ▼) to select the TV aspect and press SELECT.

- 1 **4:3**
Select when a conventional TV set is connected.
(Factory preset)
- 2 **16:9**
Select when a wide-screen TV set is connected.

Setting is finished and the initial settings screen is displayed.

Also refer to "Common procedures of initial settings" on page 32.

For your reference:

- For further details on the images which appear on the TV screen (aspect ratios of the screen), see page 43.

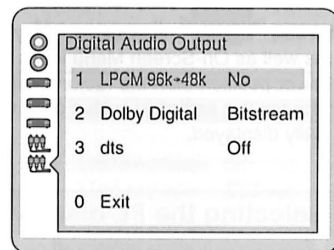


Initial settings

Selecting digital output

Select the digital output to be output from the optical/coaxial digital audio output connector of the player.

- 1** At the initial settings screen (on page 32)
Press the cursor buttons (**▲**, **▼**) to select “7 Digital Audio Output” and press **SELECT**.



- 2** Press the cursor buttons (**▲**, **▼**) to select the preferred item and press **SELECT**.

- 1** **LPCM 96k→48k:**

To select whether digital audio converted to 48 kHz/16 bit is output from the optical/coaxial digital audio output connector or no digital audio is output during playback of the DVD recorded in Linear PCM of 96 kHz.

(In case of the DVD recorded in Linear PCM of 48 kHz, digital audio converted to 48 kHz/16 bit is output irrespective of the setting.)

- 2** **Dolby Digital:**

To select the signal format (Bitstream or PCM) to be output from the optical/coaxial digital audio output connector during playback of the DVD recorded in Dolby Digital (AC-3).

- 3** **dts:**

To select whether dts bitstream is output from the optical/coaxial digital audio output connector or no digital audio is output during playback of the DVD recorded in dts.

3 Press the cursor buttons (▲, ▼) to select the preferred value and press SELECT.

When "1 LPCM 96k→48k" is selected

- 1 **No**: Digital audio of 48 kHz/16 bit is output during playback of the DVD recorded in Linear PCM of 48 kHz. No digital audio is output during playback of the DVD recorded in Linear PCM of 96 kHz. However, audio will be output using the original audio recording system in case of the DVD which has not been copyright-protected. (Factory preset)
- 2 **Yes**: During playback of the DVD recorded in Linear PCM of 48 kHz or 96 kHz, digital audio converted to 48 kHz/16 bit is output. (Digital output of PCM audio is restricted to 48 kHz/16 bit or below for copyright protection.)

When "2 Dolby Digital" is selected

- 1 **Bitstream***1: Dolby Digital (AC-3) bitstream (1ch–5.1ch) is output during playback of the DVD recorded in the Dolby Digital (AC-3). (Factory preset)
Select this setting when the player is connected to the Dolby Digital (AC-3) decoder.
- 2 **PCM**: Digital audio converted to PCM (2ch) of 48 kHz/16 bit is output during playback of the DVD recorded in the Dolby Digital (AC-3).

When "3 dts" is selected

- 1 **Off**: No digital audio is output during playback of the DVD recorded in dts. (Factory preset)
- 2 **Bitstream***1: dts bitstream is output during playback of the DVD recorded in dts. Select this setting when the player is connected to the dts decoder.

The screen illustrated in step 1 is displayed. Select "0" by using the cursor buttons (▲, ▼) and press SELECT to return to the initial settings screen.

Also refer to "Common procedures of initial settings" on page 32.

Recommended setting of "Digital Audio Output"

Make settings as shown in table below depending on the kind of equipment that is connected to the optical/coaxial digital audio output connector.

Type of equipment to be connected	Recommended setting		
	1 LPCM 96k→48k	2 Dolby Digital	3 dts
No equipment is connected	<u>No</u>	<u>Bitstream</u>	<u>Off</u>
AV amplifier (with digital audio input connector) without Dolby Digital/dts decoder	Yes*2	PCM*1	<u>Off</u> *1
Dolby Digital (AC-3) decoder (See page 14.)	Yes*2	<u>Bitstream</u>	<u>Off</u>
Dolby Digital (AC-3) decoder/dts decoder (See page 14.)	Yes*2	<u>Bitstream</u>	Bitstream

● Underlined item is a factory preset.

*1 When connecting an amplifier (with an optical/coaxial digital input connector) which does not contain the Dolby Digital (AC-3) or dts decoder, be sure to select "PCM" at the "2 Dolby Digital" and "Off" at the "3 dts". If "Bitstream" is selected, any attempt to play DVD may cause such a high level of noise that it may be harmful to your ears and damage your speakers.

*2 Audio output from the player's audio output connectors is converted to 48 kHz as well as audio from the digital audio output connector.

To enjoy high quality sound at 96 kHz, connect the amplifier or decoder directly to the audio output connectors, not to the digital audio output connector. (Select "No" at the "1 LPCM 96k→48k".)

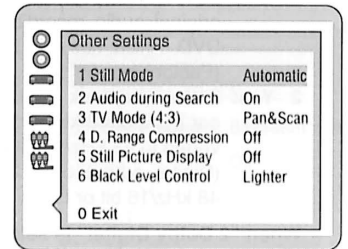


Initial settings

Other settings

Compression of the sound's dynamic range and other special settings can be performed.

- At the initial settings screen (on page 32)
Press the cursor buttons (▲, ▼) to select "9 Other Settings" and press SELECT.



- Press the cursor buttons (▲, ▼) to select the preferred item and press SELECT.

- 1 Still Mode:**
To select "Field still" or "Frame still" to prevent jittering from occurring or to let small text or fine patterns seen clearly in the still picture mode.
- 2 Audio during Search:**
To select whether audio is heard during search at the initial scan speed or not.
- 3 TV Mode (4:3):**
To select whether the video material for a wide-screen will be played back in the Pan & Scan style or in the Letterbox style on a conventional size TV.
- 4 D. (Dynamic) Range Compression:**
To select the dynamic range during playback.
- 5 Still Picture Display:**
To select whether the picture type (I/P/B) is displayed on the TV screen in the still picture mode or not.
- 6 Black Level Control:**
To select the black level of the picture, "Lighter" or "Darker".

- Press the cursor buttons (▲, ▼) to select the preferred value and press SELECT.

When "1 Still Mode" is selected

- 1 Automatic:** "Field still" and "Frame still" are automatically selected in the still picture mode. (Factory preset)
- 2 Field:** "Field still" is always selected. Select this setting when jittering occurs in the pictures even when "1 Automatic" is selected.
- 3 Frame:** "Frame still" is always selected. Select this setting when small text or fine patterns cannot be seen clearly even when "1 Automatic" is selected.

When "2 Audio during Search" is selected

- 1 On:** Audio will be heard during search at the initial scan speed. (Factory preset)
(When audio during search at the initial scan speed is not desired, select "Off".)
- 2 Off:** Select this setting when audio during search at the initial scan speed is not desired.

When "3 TV Mode (4:3)" is selected

- 1 Pan & Scan:** The video material for a wide-screen will be played back in the Pan & Scan style on a conventional size TV. (Factory preset)
 - Video material not formatted in the Pan & Scan style will be played back in the letterbox style. (See page 43.)
- 2 Letterbox:** The video material for a wide-screen will be played back in the letterbox style on a conventional size TV.

When "4 D. (Dynamic) Range Compression" is selected

- 1 Off:** Normal audio range is selected. (Factory preset)
- 2 On:** Select this setting to enjoy listening to dynamic sound even on a low volume.
Dynamic range is the difference in volume between the quietest and loudest sounds heard. Dynamic Compression limits level for listening at low volume. This is useful late at night, for example.
[This function only works with Dolby Digital (AC-3) DVD.]

When "5 Still Picture Display" is selected

- 1 Off:** The picture type (I/P/B) will not be displayed on the TV screen in the still picture mode. (Factory preset)
- 2 On:** The picture type (I/P/B) will be displayed on the TV screen in the still picture mode.

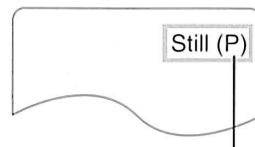
When "6 Black Level Control" is selected

- 1 Lighter:** The black level of the picture is selected to the lighter one.
Select this setting normally when the player is connected to a TV set through the VIDEO OUT connector or S VIDEO OUT connector. (Factory preset)
- 2 Darker:** The black level of the picture is selected to the darker one.
Select this setting normally when the player is connected to a TV set through the COMPONENT VIDEO OUT (Y, P_B, P_R) connector.

The screen illustrated in step 1 is displayed. Select "0" by using the cursor buttons (▲, ▼) and press SELECT to return to the initial settings screen.

For your reference:

- When the "2 On" is selected at the "5 Still Picture Display", the following screen is displayed in the still picture mode;



Example: in the case of the P-Picture

•I/P/B:

The MPEG 2 standard adopted for DVD uses the following 3 picture types for the coding of each picture (frame) on the TV screen.

I: I-Picture (Intra coded picture)

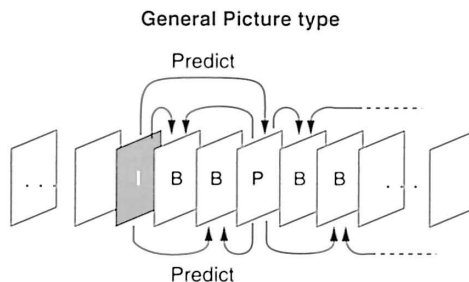
This is the standard picture type, and each picture is coded separately. Since it features the best picture quality, it is recommended that the screen be frozen with I-Picture when the picture quality is to be adjusted.

P: P-Picture (Predictive coded picture)

This picture type is computed on the basis of a past I-Picture or P-Picture.

B: B-Picture (Bidirectionally-predictive coded picture)

This picture type is computed by comparing the previous and subsequent I-Picture or P-Picture. It has the lowest volume of information.



Also refer to "Common procedures of initial settings" on page 32.


















Language code list

Enter the appropriate code number for the initial settings "Audio", "Subtitle" and/or "Menus" (see page 33).

Code	Language	Code	Language	Code	Language	Code	Language
6565	Afar	7079	Faroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoa
6577	Ameharic	7165	Irish	7686	Latvian, Lettish	8378	Shona
6582	Arabic	7168	Scots Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bihari	7285	Hungarian	7783	Malay	8469	Telugu
6678	Bengali; Bangla	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Panjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto, Pushto	8575	Ukrainian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Romanian	8679	Volapük
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Sanskrit	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sindhi	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

Concerning images which appear on the TV screen (aspect ratios of the screen)

Images which appear on the TV screen differ depending on the type of software and the TV set connected.

Type of software	TV set connected (Screen mode)			
	4:3	16:9 ("FULL" mode)	16:9 ("ZOOM" mode)	16:9 ("AUTO" mode)
Software for wide-screen (formatted in the Pan & Scan style) 	Screen whose right and left edges are cut off 	Full screen 	Screen whose top and bottom edges are cut off 	Full screen 
Software for wide-screen (not formatted in the Pan & Scan style) 	Letterbox (with black bands at top and bottom) 			
Software (4:3) 	Full screen 	Screen horizontally enlarged 	Screen whose top and bottom edges are cut off 	Full screen (with black bands at right and left) 
Software (4:3, Letterbox) 	Letterbox (with black bands at top and bottom) 	Screen horizontally enlarged (with black bands at top and bottom) 	Full screen 	Screen in which the picture at the far left and far right ends only is extended horizontally (with black bands at top and bottom) 

•The images which appear on the TV screen, and what each screen mode is called, may differ depending on the manufacturer of the TV set or on the type of the TV set. Consult the instruction manual provided with your TV set.

For your reference:

•**Letterbox**

Black bands are inserted at the top and bottom of the screen to fill in the gaps at the top and bottom where the size of the picture is smaller than the screen.

•**Pan & Scan**

Part of the wide-screen picture (either at both sides or one side of the screen) is automatically eliminated so that the picture fills the whole screen.

Troubleshooting

Before requesting service for this player, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, consult your dealer for instructions.

[Consult PASC Authorized Servicenters for detailed instructions, call 1-888-PANA-DVD (1-888-726-2383) or visit our home address www.panasonic.com/dvd for the address of an authorized factory servicenter.]

Symptom (Common)	Remedy
No power.	Insert the AC plug securely into the AC outlet.
The player is automatically set to the standby mode.	To conserve power, the player is automatically set to the standby mode after approx. 30 minutes have elapsed in the stop mode (Auto power-off function). Turn the power back to ON.
<ul style="list-style-type: none"> • Play fails to start even when PLAY is pressed. • Play starts but then stops immediately. 	<ul style="list-style-type: none"> • Condensation has formed: wait about 1 to 2 hours to allow the player to dry out. • This player cannot play a disc other than DVD, Video CD and CD. • The disc may be dirty and may require cleaning. • Ensure that the disc is installed with the label side to be played facing upwards.
No picture.	<ul style="list-style-type: none"> • Ensure that the equipment is connected properly. • Ensure that the VIDEO OUT SELECT switch is set to the appropriate position according to the TV set to be connected. (See page 8.) • Ensure that the input setting for the TV is "Video".
<ul style="list-style-type: none"> • No sound. • Distorted sound. 	<ul style="list-style-type: none"> • Ensure that the equipment is connected properly. • Ensure that the input settings for the TV and stereo system are correct.
Picture is distorted during rapid advance or rapid reverse.	The picture will be somewhat distorted at times: this is normal.
No key operation (by the main unit and/or the remote control unit) is effective.	<ul style="list-style-type: none"> • Some operations may be prohibited by the disc. • Press POWER to set the player to the standby mode and then back to ON. Alternatively, press POWER to set the player to the standby mode, disconnect the AC plug and then re-connect it. (The player may not be operating properly due to lightning, static electricity or some other external factor.)
No 4:3 (16:9) picture.	Choose the correct setup "6 TV Aspect" item which matches the TV set used.
No on-screen display.	The "Off" setting is selected for "1 On-Screen Messages" in "4 On-Screen Messages": select "On".
No operations can be performed with the remote control unit.	<ul style="list-style-type: none"> • To conserve power, the player is automatically set to the standby mode after approx. 30 minutes have elapsed in the stop mode (Auto power-off function). Turn the power back to ON. • Check the batteries are installed with the correct polarities (+ and -). • The batteries are depleted: replace them with new ones. • Point the remote control unit at the remote control sensor and operate. • Operate the remote control unit at a distance of not more than 23 feet (7 meters) from the remote control sensor. • Remove the obstacles between the remote control unit and remote control sensor.
On-Screen Menu Icons not displayed or only partially displayed on the TV screen.	Change the position of the On-Screen Menu Icons using "2 Color and Position" in "4 On-Screen Messages" of the initial settings.
If you cannot solve your problem.	For customer service, please contact the Panasonic Customer Care Call Center at 1-888-PANA-DVD (1-888-726-2383) or visit our home address www.panasonic.com/dvd for further assistance.

Symptom (DVD)	Remedy
No subtitles.	<ul style="list-style-type: none"> • Subtitles appear only with discs which contain them. • Subtitles are cleared from the TV monitor. Perform the steps on page 29 to display the subtitles.

Symptom (DVD)	Remedy
Alternative audio soundtrack (or subtitle) languages fail to be selected.	<ul style="list-style-type: none"> • An alternative language is not selected with discs which do not contain more than one language. • In the case of some discs, the alternative language cannot be selected by operating the AUDIO or SUBTITLE button. Try selecting it from the DVD menu if one is available.
Angle cannot be changed.	This function is dependent on software availability. Even if a disc has a number of angles recorded, these angles may be recorded for specific scenes only (when "ANGLE" lights up on the player's FL display).
Play does not start even when title is selected.	Confirm the "2 Ratings" setting.
Audio soundtrack and/or subtitle language is not the one selected at the initial settings.	If the audio soundtrack and/or subtitle language does not exist on the disc, the language selected at the initial settings will not be seen/heard.
The menu is displayed in French (example).	The setup "3 Menus" of "1 Disc Languages" is set to French: select English.
The password for rating level has been forgotten. Reset all the settings to Factory Preset.	While the player is in the stop mode, hold the player's SKIP/SEARCH (◀◀/▶▶) button and the PAUSE button down simultaneously and then hold the OPEN/CLOSE button down for longer than 3 seconds (until "Initialized" disappears from the TV monitor). The lock will be released and all initial settings will return to the default values.

Symptom (Video CD)	Remedy
No menu play.	This function works only for Video CDs with playback control.

Self-diagnosis display function

When an error or trouble is detected during operation, a service number appears in the FL display.
When a service number appears, check out the details given below.

Service number	Player status	Remedy
U I I	Disc is dirty.	Wipe the disc clean.
H □ □ □ □ stands for a number.	Trouble is likely to have occurred. The number following "H" differs depending on the status of the player.	Press POWER to set the player to the standby mode and then back to ON. Alternatively, press POWER to set the player to the standby mode, disconnect the AC plug, and then re-connect it.

- If the service number fails to be cleared even when the remedial action is taken, ask the service technician to repair the player.

Product service

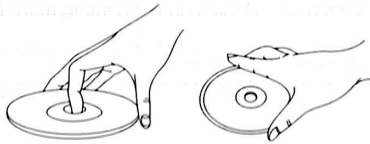
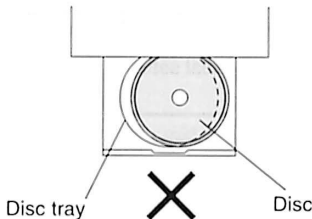
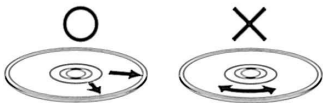
Do not attempt to remove the cover(s) or repair the player yourself. Refer servicing to qualified personnel only.

Product information

For product service, product information or assistance with product operation, refer to the service center directory.

If you ship the product

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-affixed letter, detailing the complaint, to the outside of the carton. *DO NOT send the product to the Executive or Regional Sales offices. They are NOT equipped to make repairs.*

A**B****C**

Disc handling and maintenance

Handling precautions

- Hold the disc by the edges so the surface will not be soiled with fingerprints. **(A)**
Fingerprints, dirt and scratches can cause skipping and distortion.
- Do not write on the label side with a ball-point pen or other writing utensils.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Be careful not to drop or bend the disc.
- Do not install more than 1 disc on the disc tray.
- Do not try to close the disc tray when the disc is not installed properly. **(E)**
- Be sure to store the disc in its exclusive case when not in use.

If the surface is soiled **(E)**

Wipe gently with a soft, damp (water only) cloth.

When wiping discs, always move the cloth from the center hole toward the outer edge.

(If you wipe the discs using a circular motion, circular scratches are likely to occur, which will cause noise.)

If the disc is brought from a cold to a warm environment, moisture may form on the disc

Wipe this moisture off with a soft, dry, lint-free cloth before using the disc.

Improper disc storage

You can damage discs if you store them in the following places:

- Areas exposed to direct sunlight
- Humid or dusty areas
- Areas directly exposed to a heat outlet or heating appliance

Discs which cannot be played with this player

- DVD with Region No. other than "1" or "ALL"
- Disc of PAL system
- DVD-ROM
- DVD-R/DVD-RAM
- CD-ROM
- VSD
- CDV
- CD-G
- CD-RW
- DVD+RW
- CVD
- SVCD
- Divx Video Disc
- etc.

- Do not try to play Photo CD or CD-R.

(Otherwise, data on the disc may be damaged.)

Maintenance

- Be sure to press POWER to set the player to the standby mode and disconnect the AC cord before maintaining the player.
- Wipe this player with a dry, soft cloth.
If the surfaces are extremely dirty, wipe clean with a cloth which has been dipped in a weak soap-and-water solution and wrung out thoroughly, and then wipe again with a dry cloth.
- Never use alcohol, benzene, thinner, cleaning fluid or other chemicals. And do not use compressed air to remove dust.