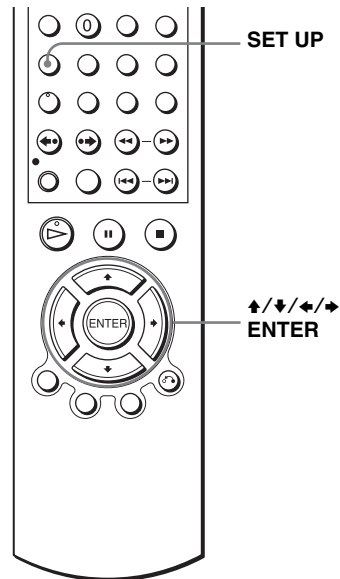


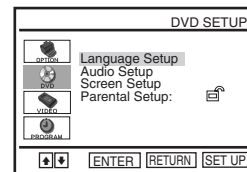
DVD Settings and Adjustments

Audio Setup **DVD-V** **DVD-RW**

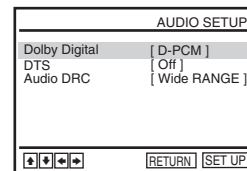
“Audio Setup” allows you to set the sound according to the playback and connection conditions.



- 1** **SET UP** Press SET UP when the DVD player is in stop mode, then press to select (DVD), then press ENTER.



- 2** Press to select “Audio Setup,” then press ENTER.



- 3** Press to select the setup item from the displayed list: “Dolby Digital,” “DTS” or “Audio DRC.”



continued

4

Press to select an item.

5

SET UP



Press SET UP to exit the menu.

Menu choices• **Dolby Digital**

Selects the type of Dolby Digital signal.

The default setting is indicated in bold print.

D-PCM	Select this when the player is connected to an audio component lacking a built-in Dolby Digital decoder.
Dolby Digital	Select this when the player is connected to an audio component with a built-in Dolby Digital decoder.

• **DTS**

Selects whether or not to output DTS signals.

The default setting is indicated in bold print.

Off	Select this when the player is connected to an audio component lacking a built-in DTS decoder.
On	Select this when the player is connected to an audio component with a built-in DTS decoder.

• **Audio DRC (Dynamic Range Control)**

Makes the sound clear when the volume is turned down when playing a DVD that conforms to "Audio DRC." This affects the output from the following jacks:

- LINE OUT AUDIO L/R jacks
- DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack only when "Dolby Digital" is set to "D-PCM".

The default setting is indicated in bold print.

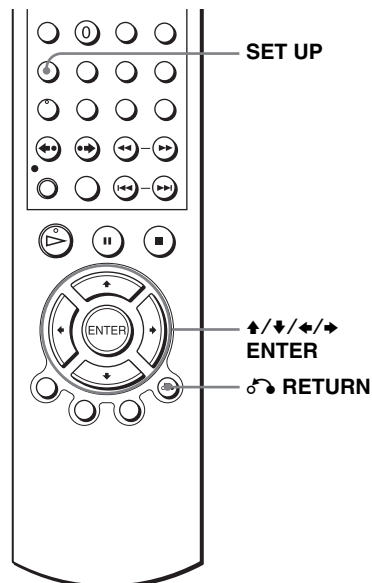
Wide RANGE	Gives you the feeling of being at alive performance.
TV Mode	Makes the low sounds clear even if you turn the volume down.

Notes

- If you select the surround setting while playing a DVD, the player does not output Dolby Digital signals from the DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack (when you set "Dolby Digital" to "D-PCM" in "AUDIO SETUP" menu).
- If you connect a component that does not conform to the selected audio signal, a loud noise (or no sound) will come out from the speakers, affecting your ears or causing the speakers to be damaged.

Screen Setup **DVD-V**

“Screen Setup” allows you to set the screen according to the playback and connection conditions.

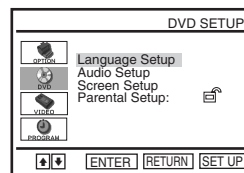


1

SET UP



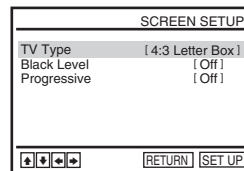
Press SET UP when the DVD player is in stop mode, then press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to select , then press ENTER.



2



Press $\uparrow/\downarrow$ to select “Screen Setup,” then press ENTER.



3



Press $\uparrow/\downarrow$ to select the setup item from the displayed list: “TV Type,” or “Black Level.”

To set the “Progressive” setting, see page 69.

continued

4Press $\leftarrow/\rightarrow$ to select an item.**5**

SET UP



Press SET UP to exit the menu.

Menu choices

- TV Type

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

The default setting is indicated in bold print.

4:3 Letter Box	Select this when you connect a 4:3 screen TV. Displays a wide picture with bands on the upper and lower portions of the screen.
4:3 Pan Scan	Select this when you connect a 4:3 screen TV. Automatically displays the wide picture on the entire screen and cuts off the portions that do not fit.
16:9	Select this when you connect a wide-screen TV or a TV with a wide mode function.

4:3 Letter Box



4:3 Pan Scan



16:9



- Black Level

You can enhance the black level by increasing the brightness and contrast when viewing DVDs with the PROGRESSIVE indicator turned off.

The default setting is indicated in bold print.

Off	Stops the increase of the contrast.
On	Increases the contrast.

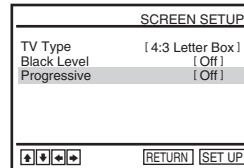
Notes

- Playback settings stored in the disc take priority over the "DVD SETUP" menu settings and not all the functions described may work.
- Depending on the DVD, "4:3 Letter Box" may be selected automatically instead of "4:3 Pan Scan" or vice versa.

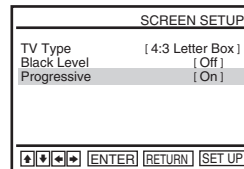
To set the “Progressive” setting

If your TV accepts progressive (525p) format signals, you will enjoy accurate color reproduction and high quality image.

- 1 Follow step 1 and 2 on page 67, then press $\blacktriangle/\blacktriangledown$ to select “Progressive.”

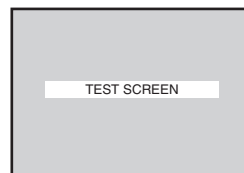
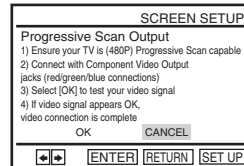


- 2 Press $\blacktriangle/\blacktriangledown$ to select “On,” then press ENTER.



- 3 Follow the instructions appearing on the screen.

- 1 Ensure your TV is (525p) Progressive Scan capable.
- 2 Connect with Component Video Output jacks (red/green/blue connections).
See “Use this hookup if your TV has component video input jacks” on page 64.
- 3 Press $\blacktriangle/\blacktriangledown$ to select [OK] to test your video signal.

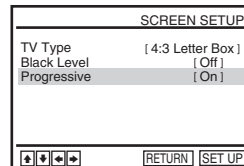
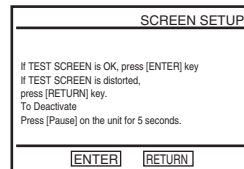


- 4 If video signal appears OK, video connection is complete. Press ENTER.

The PROGRESSIVE indicator on the unit lights up in orange.

If picture is distorted, press $\odot$ RETURN.
Check the connection (page 64).

- 5 Press SET UP to exit the menu.



continued

Tip

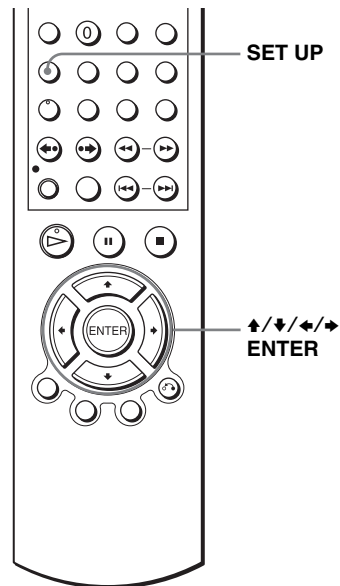
- The “Progressive” setting can be canceled by pressing **II** on the unit continuously for 5 seconds or more, or selecting “Off” in step 2.

Note

- If you select progressive signal when you connect the DVD player to a TV that cannot accept the signal in progressive format, the image quality will deteriorate. In this case, set “Progressive” to “Off”.

Setting the display or sound track language **DVD-V**

You can set various languages for the disc's menu, sound track or subtitle.



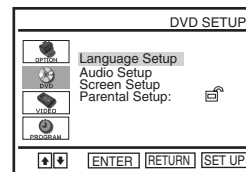
DVD Settings and Adjustments

1

SET UP



Press SET UP when the DVD player is in stop mode, then press (DVD) and press ENTER.

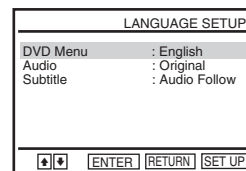


2



Press to select "Language Setup," then press ENTER.

The "LANGUAGE SET UP" menu appears.



continued

3

Press $\blacktriangle/\blacktriangledown$ to select the language setup item from the displayed list: “DVD Menu,” “Audio,” or “Subtitle.” Then press ENTER.

4

Press $\blacktriangle/\blacktriangledown$ to select the desired language, then press ENTER.

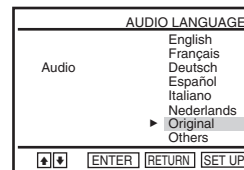
- **DVD MENU LANGUAGE**

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



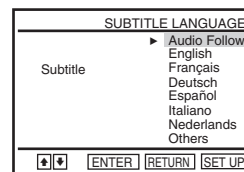
- **AUDIO LANGUAGE**

Switches the language of the sound track. When you select “Original,” the language given priority in the disc is selected.



- **SUBTITLE LANGUAGE**

Switches the language of the subtitle recorded on the DVD. When you select “Audio Follow,” the language for the subtitle changes according to the language you selected for the sound track.

**5**

Press SET UP to exit the menu.

Tip

- If you select “Others” in step 4, an additional language menu appears. Press $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ to select the desired language, then press ENTER.



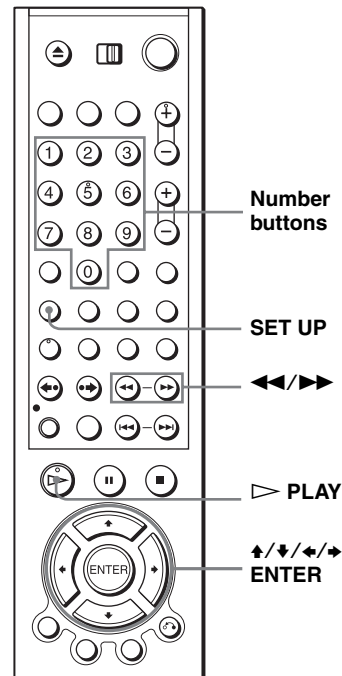
Notes

- When you select a language that is not recorded on the DVD in step 4, one of the recorded languages will be automatically selected.
- Playback settings stored in the disc take priority over the DVD SETUP settings and not all the functions described may work.

Parental Control (limiting playback by children)

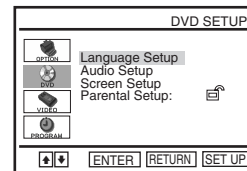
DVD-V

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

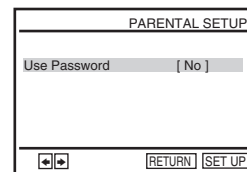


DVD Settings and Adjustments

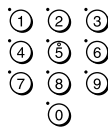
- 1** **SET UP** Press SET UP when the DVD player is in stop mode, then press $\uparrow/\downarrow$ to select  (DVD) and press ENTER.



- 2** Press $\uparrow/\downarrow$ to select "Parental Setup," then press ENTER.



continued

3

Press **➡** to set the parental control.

- If you have not entered a password
The display for registering a new password appears.
Enter a 4-digit password using the number buttons.

The display for confirming the password appears.
Re-enter the password.

- When you have already registered a password
The display for entering the password appears.
Enter a 4-digit password using the number buttons.

CREATE PASSWORD	
Enter Password	
- - - -	
[0]~[9]	[RETURN]

CREATE PASSWORD	
Re-enter Password	
- - - -	
[0]~[9]	[RETURN]

PASSWORD CHECK	
Enter Password	
- - - -	
[0]~[9]	[RETURN]

PARENTAL SETUP	
Use Password	[Yes]
Rating Level	:1
Change Password	
[*][*][*][*]	[RETURN] [SET UP]

4

Press **▲/▼** to select "Rating Level," then press ENTER.

RATING LEVEL	
Level 8 Adult	
Level 7	
Level 6	
Level 5	
Level 4	
Level 3	
Level 2	
Level 1 Kids Safe	
[*][*]	[ENTER] [RETURN] [SET UP]

5

Press **▲/▼** to select the level you want, then press ENTER.

The options are as follows.

Level 8 (Adult) ↔ Level 7 ↔ Level 6 ↔
Level 5 ↔ Level 4 ↔ Level 3 ↔ Level 2
↔ Level 1 (Kids Safe)

The lower the value, the stricter the limitation.

RATING LEVEL	
Level 8 Adult	
Level 7	
Level 6	
Level 5	
Level 4	
Level 3	
Level 2	
Level 1 Kids Safe	
[*][*]	[ENTER] [RETURN] [SET UP]

6

SET UP



Press SET UP to exit the menu.

To change the password

- 1** Select "Change Password" in step 4 on page 74.
The display for entering a new password appears.
- 2** Enter a new 4-digit password using the number buttons.
The display for confirming the password appears.
- 3** Re-enter the new password.

To turn off the Parental Control function

Set "Use Password" to "No" in step 4 on page 74.

To play a disc for which Parental Control is set

- 1** Insert the disc, then press  PLAY.
The display for entering your password appears.
- 2** Enter your 4-digit password using the number buttons.
The player starts playback.

If you forget your password

- 1** Remove the disc and turn off the DVD-VCR.
- 2** Turn on the DVD-VCR again with no disc in the unit.
- 3** Hold down  and  on the front panel simultaneously for 5 seconds.
"reset ok" appears on the screen.
- 4** Turn off the DVD-VCR.
The password is cleared.
- 5** To create a new password, follow step 3 on page 74.

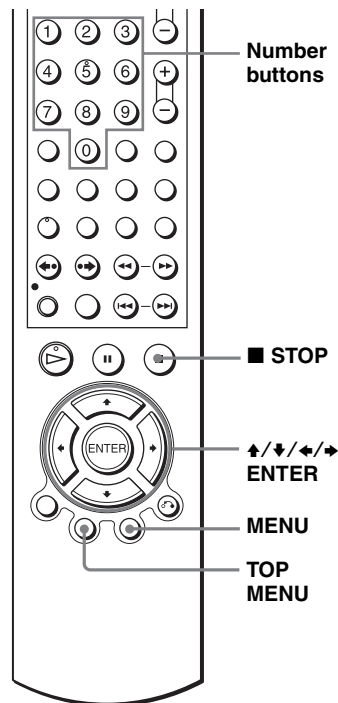
Notes

- When you play DVDs which do not have the Parental Control function, playback cannot be limited on this player.
- All the ratings higher than the level you select will be blocked.
- Write your password down and keep it in a safe place in case you forget it.

DVD Additional Operations**Using the DVD's menu DVD-V**

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 TOP MENU button.

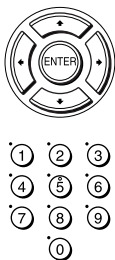
When you play DVDs that allow you to select items such as the language for the subtitles and the language for the sound, select these items using the MENU button.

**1**

Press TOP MENU or MENU.

The disc's menu appears on the TV screen.

The contents of the menu vary from disc to disc.

2

Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to select the item you want to play or change.

You can also use the number buttons to select the item.

3



Press ENTER.

To turn off the DVD's menu

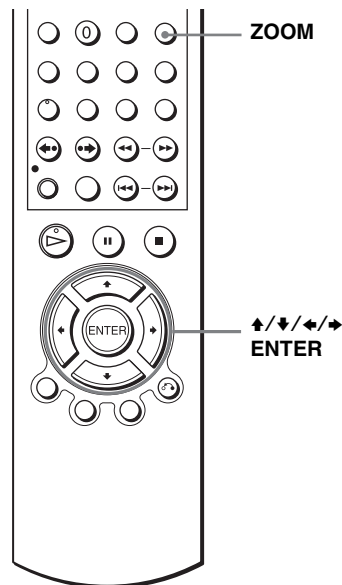
Press ■ STOP

Note

- Depending on the DVD, you may not be able to use the TOP MENU button.

Zooming into a scene **DVD-V** **VCD** **DATA-CD**

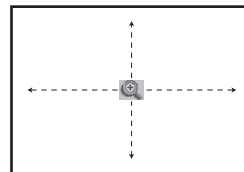
You can zoom into a scene during playback or still mode. To zoom into a JPEG image, see "Playing JPEG image files" on page 93.



1



Press ZOOM.
“” appears.



2



Press     to move “” to the position where you want to zoom in.

3



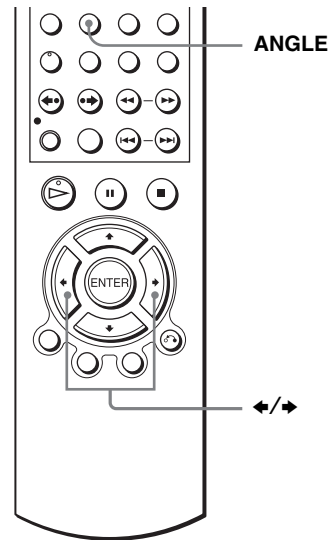
Press ENTER repeatedly to change the magnification.
Each time you press the button, the magnification changes as shown below.
2× → 4× → 2× → normal magnification

Notes

- You cannot use 4× magnification when you play VIDEO CDs.
- The zoom function may not work depending on the DVD.

Changing the angles **DVD-V**

If various angles (multi-angles) for a scene are recorded on the DVD, “” appears in the display when you press ANGLE during playback. This means that you can change the viewing angle.



1

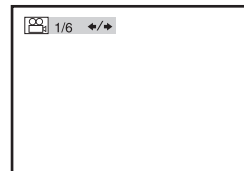
ANGLE



Press ANGLE during playback.

The angle number appears on the display.

The number after the slash indicates the total number of angles.



2



Press   repeatedly to select the angle number.

The scene changes to the selected angle.

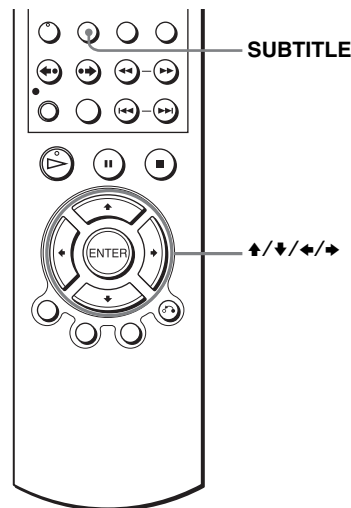
DVD Additional Operations

Note

- Check the user's manual of the purchased disc to determine whether it supports angle operation. However, note that angle operation may not be possible for some discs.

Displaying the subtitle **DVD-V** **DVD-RW**

If subtitles are recorded on the disc, you can change the subtitles or turn them on and off whenever you want while playing a DVD.

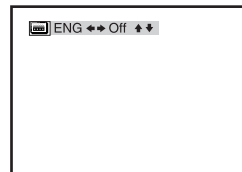


1

SUBTITLE/
TIMER



Press SUBTITLE during playback.



2



Press $\leftarrow/\rightarrow$ repeatedly to select the language.

Depending on the DVD, the choice of language varies. Refer to "DVD Audio/Subtitle Language" on page 125 for the abbreviation of the language.

3



Press $\uparrow/\downarrow$ repeatedly to select "On."

To turn off the subtitles

Select "Off" in step 3.

Note

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

Various play mode functions (Program play, Shuffle play, Repeat play) **DVD-V DVD-RW VCD CD DATA-CD**

You can set the following play modes:

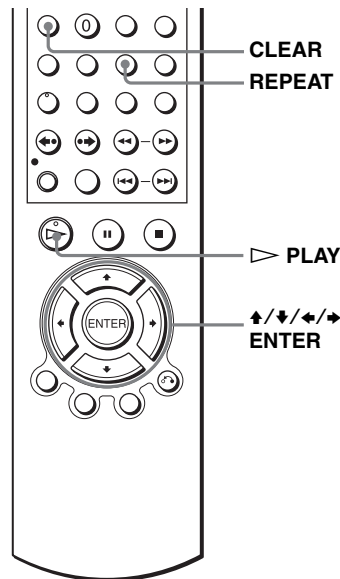
- Program play (page 81)
- Shuffle play (page 83)
- Repeat play (page 84)

Note

- The play mode is canceled when:
 - you open the disc tray
 - the player enters standby mode by pressing **I/⏻**.

Creating your own program (Program play) **CD**

You can play the contents of a disc in the order you want by arranging the order of the tracks on the disc to create your own program. You can program up to 20 tracks.



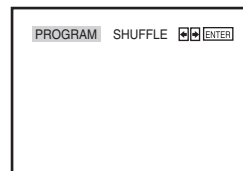
DVD Additional Operations

1

REPEAT/
SEARCH



Press REPEAT when the DVD player is in stop mode.



continued

Various play mode functions (Program play, Shuffle play, Repeat play) **81**

2

Press $\leftarrow/\rightarrow$ to select "PROGRAM", then press ENTER.

PROGRAM									
Track					Program Order				
01	02	03	04		---	---	---	---	---
05	06	07	08		---	---	---	---	---
09	10	11	12		---	---	---	---	---
13	14	15	16		---	---	---	---	---
17	18	19	20		---	---	---	---	---
Clear last track					Clear all tracks				
[RECALL] [ENTER] [RETURN] [CLEAR]									

3

Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to select the track number you want to program, then press ENTER.

PROGRAM									
Track					Program Order				
01	02	03	04		01	---	---	---	---
05	06	07	08		---	---	---	---	---
09	10	11	12		---	---	---	---	---
13	14	15	16		---	---	---	---	---
17	18	19	20		---	---	---	---	---
Clear last track					Clear all tracks				
[RECALL] [ENTER] [RETURN] [CLEAR]									

4

To program other tracks, repeat step 3.

The programmed track numbers are displayed in the selected order.

5

Press $\triangleright$ PLAY to start program play.

Program play starts.

When the program ends, you can restart the same program again by pressing $\triangleright$ PLAY.

To stop program play

Press CLEAR during playback.

To change or cancel a program

- 1 Follow steps 1 and 2 of "Creating your own program (Program play)."
- 2 Press $\downarrow$ repeatedly to select "Clear last track," then press ENTER. Each time you press the button, the last programmed number is canceled. You can also cancel the last programmed number by pressing CLEAR.
- 3 Follow step 3 for new programming.

To cancel all the programmed numbers

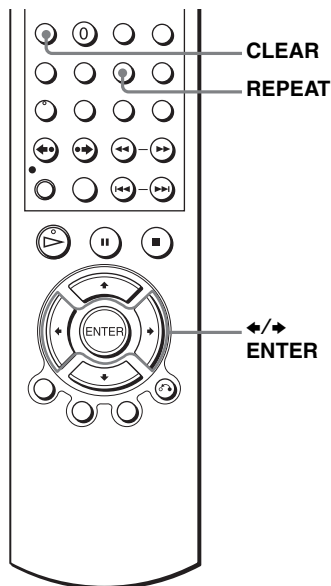
- 1 Follow steps 1 and 2 of "Creating your own program (Program play)."
- 2 Press $\downarrow$ repeatedly to select "Clear last track," then press $\rightarrow$ to select "Clear all tracks" and press ENTER.
All the programmed numbers are canceled.

Notes

- Up to 99 tracks can be displayed.
- Up to 20 tracks can be programmed at one time.

Playing in random order (Shuffle play)

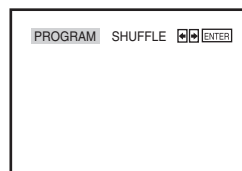
You can shuffle the playback order of tracks.
Subsequent “shuffling” may produce a different playing order.



1



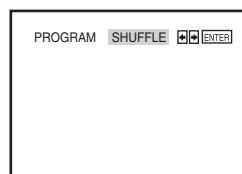
Press REPEAT when the DVD player is in stop mode.



2



Press   to select “SHUFFLE”, then press ENTER.



DVD Additional Operations

To return to normal play

Press CLEAR.

Tips

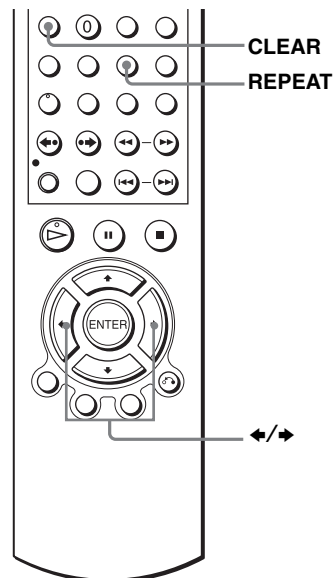
- Shuffle play will stop when all the tracks are played back.
- You cannot repeat play while in shuffle play.

continued

Various play mode functions (Program play, Shuffle play, Repeat play) **83**

Playing repeatedly (Repeat play) DVD-V DVD-RW VCD CD DATA-CD

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

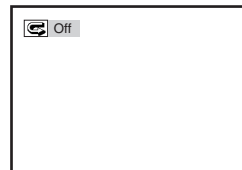


1

REPEAT/
SEARCH



Press REPEAT during playback.



2

REPEAT/
SEARCH



Press REPEAT or $\leftarrow/\rightarrow$ repeatedly to select the item to be repeated.

When playing a DVD

- Chapter: repeats the current chapter.
- Title: repeats the current title on a disc.

When playing a VIDEO CD or CD

- Track: repeats the current track.
- Disc: repeats all of the tracks.

When playing a DATA CD (MP3 audio)

- FILE: repeats the current track (file).
- DIR: repeats the current album (directory).
- DISC: repeats the current disc.

To return to normal play

Select “Off” or press CLEAR in step 2.

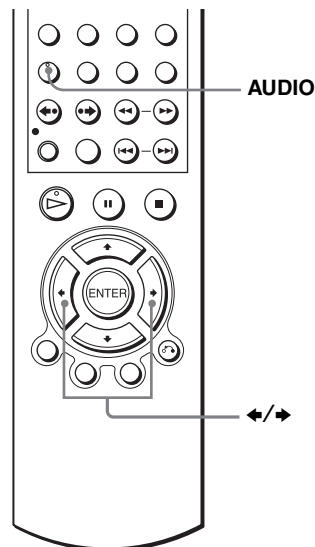
Note

- You cannot repeat play with DVD-RW in VR mode.

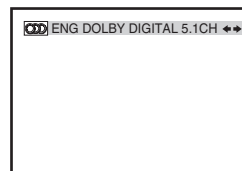
Changing the sound **DVD-V DVD-RW VCD CD**

When playing a DVD recorded in multiple audio formats (PCM, Dolby Digital, or DTS), you can change the audio format. If the DVD is recorded with multilingual tracks, you can also change the language.

With CDs, DATA 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. For example, when playing a disc containing a song with the vocals on the right channel and the instruments on the left channel, you can hear the instruments from both speakers by selecting the left channel.



1 **AUDIO** Press AUDIO during playback.



2 Press ←/→ repeatedly to select the desired language/audio setting.

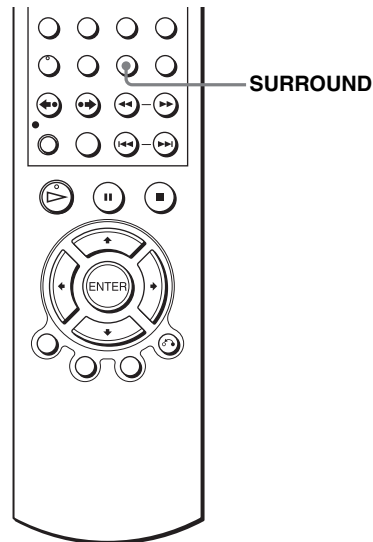


- When playing a DVD
Depending on the DVD, the choice of language varies.
Refer to “DVD Audio/Subtitle Language” on page 125 for the abbreviation of the language.
- When playing a VIDEO CD or CD
The default setting is indicated in bold print.

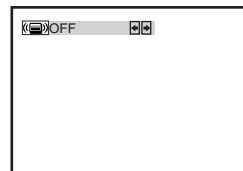
Stereo	The standard stereo sound
Left	The sound of the left channel (monaural)
Right	The sound of the right channel (monaural)

Virtual surround setting **DVD-V**

When you connect a stereo TV or 2 front speakers, **SURROUND** lets you enjoy surround sound effects by using sound imaging to create virtual rear speakers from the sound of the front speakers without using actual rear speakers. This function is designed to work with the **LINE OUT AUDIO L/R** jacks.

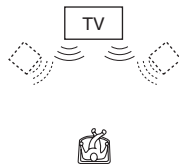


- 1** **SURROUND** Press **SURROUND** during playback.

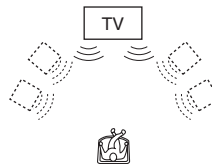


- 2** **SURROUND** Press **SURROUND** repeatedly to select "Surround1," "Surround2," "Surround3."
Surround effect increases as shown below.

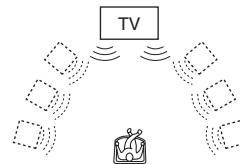
Surround1



Surround2



Surround3



(---) : Virtual speaker

DVD Additional Operations

continued

Virtual surround setting | 87

To cancel the setting

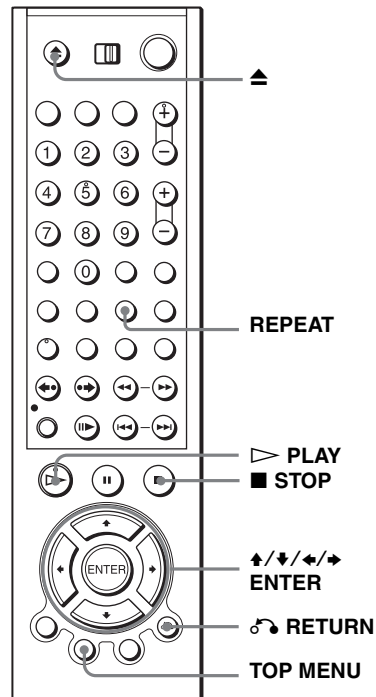
Select "OFF" in step 2.

Notes

- When the playing signal does not contain a signal for the rear speakers, the surround effects will be difficult to hear.
- When you activate the surround effect, turn off the surround setting of the connected TV or amplifier (receiver).
- Make sure that your listening position is between and at an equal distance from your speakers, and that the speakers are located in similar surroundings.
- If you use the DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack and set "Dolby Digital" to "Dolby Digital" or "DTS" to "On" in "AUDIO SETUP" menu (page 65), sound will come from your speakers but it will not have the surround effect.

Playing an MP3 audio track **DATA-CD**

You can play back DATA CDs (CD-ROMs/ CD-Rs/CD-RWs) recorded in MP3 (MPEG1 Audio Layer 3) format.



DVD Additional Operations

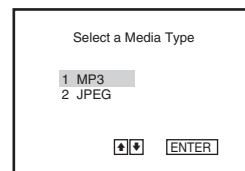
1



Press and place a DATA CD on the disc tray, then press to close the tray.

When you load a DATA CD which contains MP3 audio tracks and JPEG image files, "Select a Media Type" menu appears.

If you load a DATA CD which contains only MP3 audio files, the MP3 display appears. Then you can skip step 2.



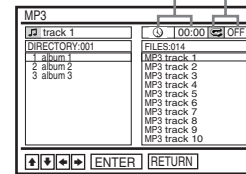
continued

Playing an MP3 audio track **89**

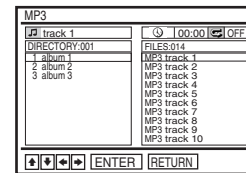
2

Press $\blacktriangle/\blacktriangledown$ to select “MP3”, then press ENTER.

Repeat mode
Elapsed playing time

**3**

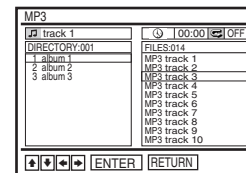
Press $\blacktriangle/\blacktriangledown$ to select the desired directory in the left column, then press ENTER.

**4**

Press $\blackrightarrow$, then press $\blacktriangle/\blacktriangledown$ to select the desired track in the right column, then press ENTER.

The selected track starts playing.

When a track or album is being played, the title is shown in a box. The playing track number appears on the display window.



To stop play

Press $\blacksquare$ STOP.

To repeat play

Press REPEAT repeatedly to change the repeat mode.

- FILE: repeats the current track (file).
- DIR: repeats the current album (directory).
- DISC: repeats the current disc.

To go to the next or previous page

Press $\blackrightarrow$ or $\blackleftarrow$.

To return to the previous display

Press $\curvearrowright$ RETURN.

To return to the “Select a Media Type” menu

Press $\blacksquare$ STOP twice, then press TOP MENU.

To turn off the display

Press $\blacksquare$ STOP, then press $\curvearrowright$ RETURN repeatedly.

Notes

- Only the letters in the alphabet and numbers can be used for album or track names. Anything else is displayed as an asterisk.
- Up to 12 alphanumeric characters can be displayed for album or track names.
- ID3 tags cannot be displayed.

About MP3 audio tracks

You can play MP3 audio tracks on CD-ROMs, CD-Rs, or CD-RWs. However, the discs must be recorded according to ISO9660 level 1, level 2, or Joliet format for the player to recognize the tracks.

You can also play discs recorded in Multi Session.

See the instructions of the CD-R/RW device or recording software (not supplied) for details on the recording format.

To play a Multi Session CD

This player can play Multi Session CDs when an MP3 audio track is located in the first session. Any subsequent MP3 audio tracks, recorded in the later sessions, can also be played back. When audio tracks and images in music CD format or video CD format are recorded in the first session, only the first session will be played back.

Notes

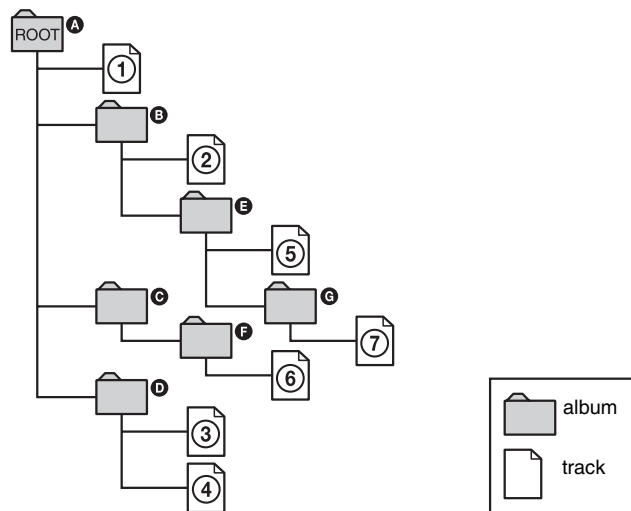
- If you put the extension “.MP3” to data not in MP3 format, the player cannot recognize the data properly and will generate a loud noise which could damage your speaker system.
- The player cannot play audio tracks in MP3PRO format.
- This player supports MP3 audio tracks recorded with a bit rate of 128 kbps and a sampling frequency of 44.1 kHz. Attempting to play MP3 audio tracks recorded with different specifications may result in loud noise, sound skipping or speaker damage.
- Depending on the disc, playback may take some time to start.

The Playback order of MP3 audio tracks

The playback order of albums and tracks recorded on a DATA CD is as follows.

- Structure of disc contents

Tree 1 Tree 2 Tree 3 Tree 4 Tree 5



When you insert a DATA CD and press $\triangleright$ PLAY, the numbered tracks are played sequentially, from ① through ⑦. Any sub-albums/tracks contained within a currently selected album does not take priority over the next album in the same tree. (Example: **E** contains **G** but ⑥ is played before ⑦.)

When you press $\curvearrowright$ RETURN and the list of MP3 albums appears (page 90), the albums are arranged in the following order: **A** $\rightarrow$ **B** $\rightarrow$ **C** $\rightarrow$ **D** $\rightarrow$ **F** $\rightarrow$ **G**. Albums that do not contain tracks (such as album **C**) do not appear in the list.

Tips

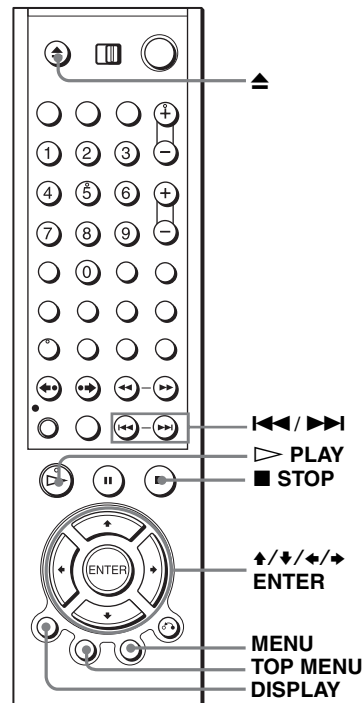
- If you add numbers (01, 02, 03, etc.) to the front of the track file names, the tracks will be played in that order.
- A disc with many trees takes longer to start playback. Some discs with many trees cannot be played back.

Notes

- Depending on the software you use to create the DATA CD, the playback order may differ from the illustration above.
- The playback order above may not be applicable if there are more than a total of 1000 albums and tracks in the DATA CD.
- The player can recognize up to 500 albums (the player will count just albums, including albums that do not contain MP3 audio tracks). The player will not play any albums beyond the first 500 albums. Of the first 500 albums, the player will play no more than a combined total of 1000 albums and tracks.

Playing JPEG image files **DATA-CD**

You can play JPEG image files on DATA CDs (CD-ROMs/CD-Rs/CD-RWs).



DVD Additional Operations

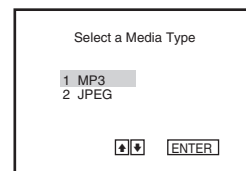
1



Press ▲ and place a DATA CD on the disc tray, then press ▲ to close the tray.

When you load a DATA CD which contains MP3 audio tracks and JPEG image files, “Select a Media Type” menu appears.

If you load a DATA CD which contains only JPEG image files, the “Album” display appears. Then you can skip step 2.



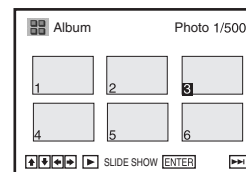
2



Press ▲/▼ to select “JPEG”, then press ENTER.

The “Album” display will appear.

If you do not press ENTER after selecting a media type, the selected media will be automatically played.



continued

Playing JPEG image files **93**

3

Press **◀◀/▶▶** to select the next/previous album page, then press **▲/▼** to select an image in the “Album” display.

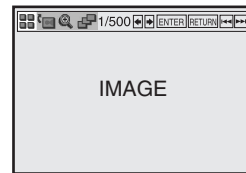


To display the selected image

- 1 Press **ENTER**.

The selected image number appears in the display window.

- 2 To display the next/previous image, press **◀◀/▶▶**.



PLAY

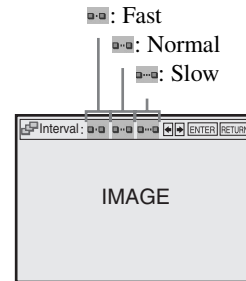


To play the Slide show

- 1 Press **▷** **PLAY**.

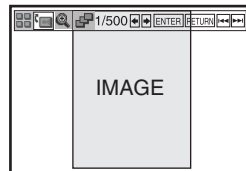
You can also play the Slide show using the menu on the selected image.
For details, see “To enjoy the Slide show” on page 95.

- 2 Press **◀/▶** to select the desired playing speed on the “Interval” menu, then press **ENTER**.
Slide show starts from the selected image.



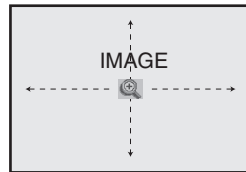
To rotate the selected image

- 1 Press **▲/▼/◀/▶** to select an image in the “Album” display, then press **ENTER**.
- 2 Press **◀/▶** to select “”, then press **ENTER**.
Each time you press **ENTER**, the image turns clockwise by 90°.



To zoom in an image

- 1 Press **▲/▼/◀/▶** to select an image in the “Album” display, then press **ENTER**.
- 2 Press **◀/▶** to select “”, then press **ENTER**.
“” appears.
- 3 Press **▲/▼/◀/▶** to move “” to the position where you want to zoom in.
- 4 Press **ENTER** repeatedly to change the magnification. Each time you press **ENTER**, the magnification changes as shown below.
2× → normal magnification



To enjoy the Slide show

- 1** Press $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ to select an image in the “Album” display, then press ENTER.
- 2** Press $\blacktriangleleft/\blacktriangleright$ to select “  ”, then press ENTER.
The “Interval” menu appears.
- 3** Press $\blacktriangleleft/\blacktriangleright$ to select the desired play speed, then press ENTER.
Slide show starts.



To turn on/off the menu in the single image display

Press DISPLAY in the single image display.

To return to the “Album” display

Press DISPLAY to turn on the menu and press $\blacktriangleleft/\blacktriangleright$ to select “  ”, then press ENTER. You can also use MENU button to return to the “Album” display. Press $\blacktriangleleft\blacktriangleleft$ repeatedly to return to the first “Album” page.

To return to the “Select a Media Type” menu

Press $\blacksquare$ STOP twice, then press TOP MENU.

Notes

- Slide show can play in only one direction.
- You cannot rotate or zoom in the image during Slide show.
- If you select “  ” in the rotated image display, the images in the “Album” display will not be rotated. But if you start the slide show, the images will be rotated. Correct the rotation in the “  ” menu.

About JPEG image files

You can play JPEG image files on CD-ROMs, CD-Rs, or CD-RWs. However, the discs must be recorded according to ISO9660 level 1, level 2, or Joliet format for the player to recognize the files.

You can also play discs recorded in Multi Session.

See the instructions of the CD-R/RW device or recording software (not supplied) for details on the recording format.

Note

- You can display up to 500 JPEG image files. More images may not be displayed.

continued

Playing JPEG image files 95

To play a Multi Session CD

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

Notes

- The system can play the extension “.JPG” or “.JPEG.”
- Some CD-Rs or CD-RWs cannot be played on this system depending on file format.
- If you add the extension “.JPG” or “.JPEG” to data not in JPEG format, “Can not Display” will appear.
- Depending on the disc or the size of image files, playback may take some time to start.
- Progressive JPEG image files are not compatible.

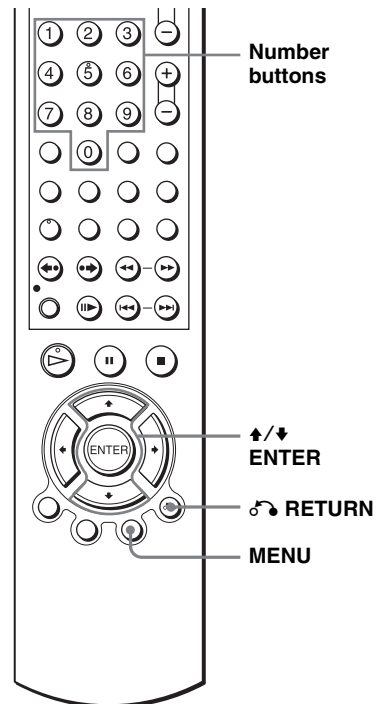
Tip

- If you add numbers (01, 02, 03, etc.) to the front of the file names, the files will be played in that order.

Playing VIDEO CDs with “MENU ON/OFF” Functions **VCD**

The PBC (Playback control) function allows you to search and perform other operations interactively. PBC playback follows a selection menu displayed on your TV screen.

The “MENU ON” function is the PBC function.



1



Press MENU to select “MENU ON.”

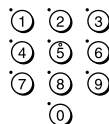
The menu for your selection appears.

2



Press $\uparrow/\downarrow$ to select the item number you want.

You can also use the number buttons to select the item number and track.



DVD Additional Operations

continued

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 depending on the VIDEO CD.

To return to the menuPress  RETURN.**To play using "MENU OFF"**

Press MENU to select "MENU OFF."

When "MENU OFF" is selected, the DVD player starts continuous play. You cannot play still pictures such as a menu.

To return to "MENU ON," press MENU to select "MENU ON."

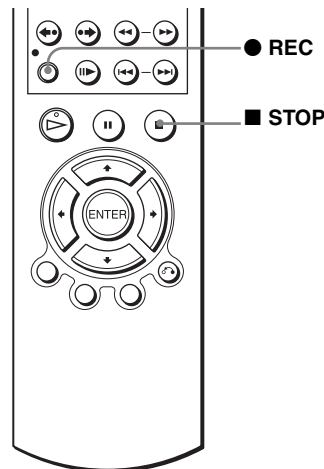
Note

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

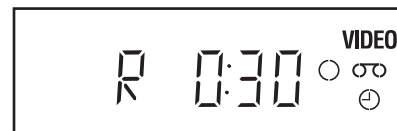
VCR Additional Operations

Quick Timer Recording **VHS**

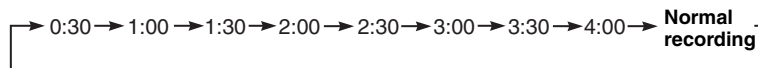
After you have started recording, you can have the VCR stop recording automatically after a specified duration.



- 1 While recording, press ● REC.



- 2 Press ● REC repeatedly to set the duration time.
Each press advances the time as follows.



The tape counter decreases minute by minute to 0:00, then the VCR stops recording.

To extend the duration

Press ● REC repeatedly to set a new duration time.

To cancel the duration

Press ● REC repeatedly until the ⊖ indicator disappears and the VCR returns to normal recording mode.

To stop while recording

Press ■ STOP.

Note

- You cannot display the current tape time in the display window when setting the recording duration time.

Recording stereo and bilingual programs

VHS

Recording stereo programs

When you receive a program broadcast in stereo, press **AUDIO** to display “Hi-Fi” on the TV screen. You can also select “Left,” “Right,” or “Mono.” If there is noise in the stereo program, select “Mono.” The sound will be recorded in monaural (on both hi-fi and normal audio tracks) but with less noise.

Recording bilingual programs

Press **AUDIO** to display “SAP” on the TV screen. When a SAP (Second Audio Program) is received, “SAP” appears on the TV screen. When “MAIN” is selected, the VCR records only the main sound.

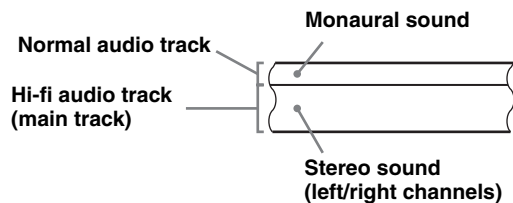
Selecting the sound during playback

During playback, press **AUDIO** to select the sound you want.

To listen to	On-screen display	Display window
Stereo	Hi-Fi	STEREO indicator
Left channel	Left	STEREO indicator
Right channel	Right	STEREO indicator
Monaural sound on the normal audio track	Mono	No indicator

How sound is recorded on a video tape

The VCR records sound onto two separate tracks. Hi-fi audio is recorded onto the main track along with the picture. Monaural sound is recorded onto the normal audio track along the edge of the tape.

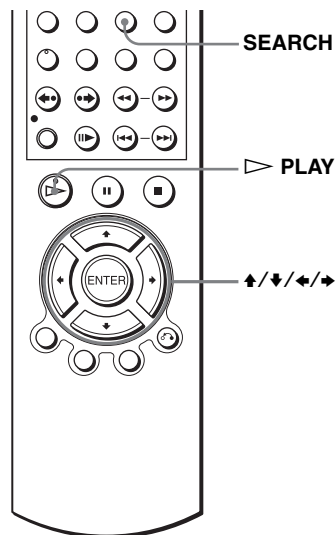


Notes

- To play a tape in stereo, you must use the A/V connections.
- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the **AUDIO** setting.

Searching using various functions **VHS**

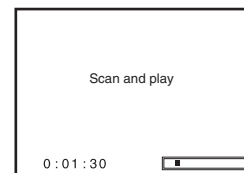
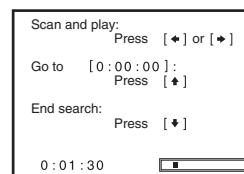
The VCR automatically marks the tape with an index signal at the point where each recording begins. You can easily find a specific point using various search functions.



To search using the index function (Scan and Play)

The VCR automatically marks the tape with an index signal at the point where each recording begins. Use these signals as references to find a specific recording.

- 1** Insert an indexed tape into the VCR.
- 2** Press SEARCH.
- 3** Press $\blacktriangleright$ to scan ahead, or $\blacktriangleleft$ to scan backwards.
The VCR searches and then plays back for about five seconds.
- 4** Press $\blacktriangleright$ PLAY to view that program.
If you do not press $\blacktriangleright$ PLAY, the VCR automatically searches for the next index mark, or until it reaches the end of the tape.



VCR Additional Operations

continued

To search for the counter 0:00:00 point

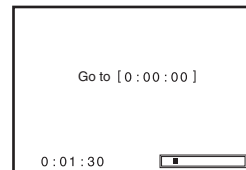
To mark a point on the tape that you want to find later, reset the tape counter to “0:00:00.”

The VCR automatically fast-forwards or rewinds to the 0:00:00 point on the tape counter.

1 Press SEARCH.

2 Press $\blacktriangle$.

The VCR starts searching and automatically stops at the 0:00:00 point.



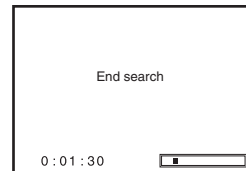
To search for a blank portion of the tape

The VCR automatically searches for the beginning of a blank portion. You can easily find a point you can start recording from.

1 Press SEARCH.

2 Press $\blacktriangledown$.

The VCR starts searching and automatically stops at the beginning of a blank space. If no blank space is found, the VCR reaches the end.



Note

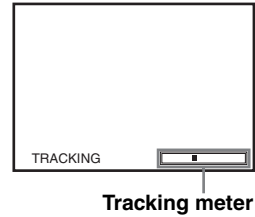
- Once in recording mode, if the VCR is put in pause and then released to start the recording, no index mark will be inserted. An index mark will be inserted if the channel is changed while VCR is put in pause.

Adjusting the picture (tracking) **VHS**

Although the VCR automatically adjusts the tracking when playing a tape, distortion may occur if the recording is in poor condition. In this case, manually adjust the tracking.

Press TRACKING +/- to display the tracking meter. The distortion should disappear as you press one of the two tracking buttons.

To resume automatic tracking adjustment, eject the tape and reinsert it.

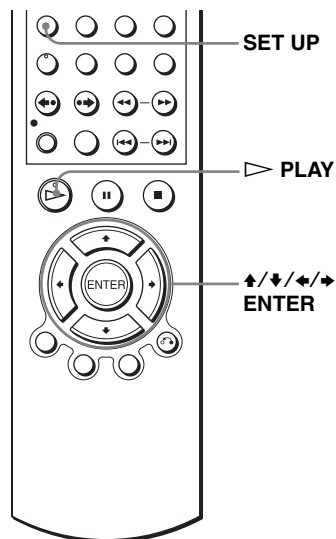


Note

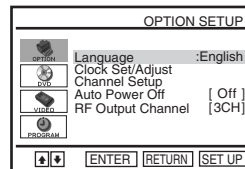
- The auto tracking adjustment cannot be guaranteed to work with tapes recorded in the LP mode on other VCRs.

Changing menu options **VHS**

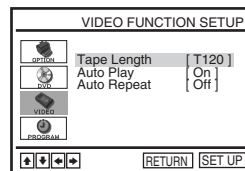
The VCR automatically marks the tape with an index signal at the point where each recording begins.
You can easily find a specific point using various search functions.



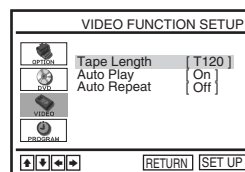
- 1** **SET UP** Press SET UP when the DVD player is in stop mode.



- 2** Press **↑/↓** to select **VIDEO** and press **ENTER**.



- 3** Press **↑/↓** to select the option to change.



4Press $\leftarrow/\rightarrow$ to change the setting.**5**

SET UP



Press SET UP to exit the menu.

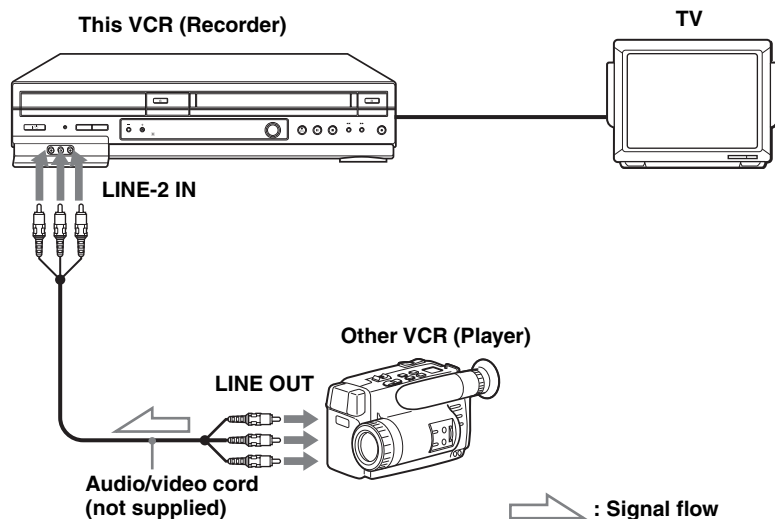
Menu choices

The default settings are indicated in bold print.

Menu option	Set this option to
Tape Length	• T-120 when using a T-120 or shorter length tape. • T-160 when using a T-160 length tape. • T-180 when using a T-180 or longer length tape.
Auto Play	• On to start playback automatically, when you insert a tape with its safety tab removed. • Off to turn off Auto play. You need to press $\triangleright$ PLAY to start playback, even if you insert a tape with its safety tab removed.
Auto Repeat	• On to play back a tape repeatedly. The VCR rewinds a tape to the beginning and restarts playback automatically. • Off to turn off Auto repeat.

Editing with another VCR **VHS**

How to connect to record on this VCR



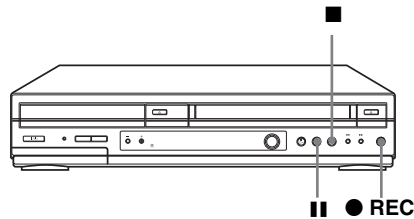
Notes

- Make sure you connect the plugs to jacks of the same color.
- If the other VCR is a monaural type and connected to this VCR's LINE-2 IN jacks, connect the audio plug to the AUDIO L (white) jack. The sound is recorded on both right and left channels. If you connect to the AUDIO R (red) jack, the sound is recorded only on the right channel.
- If you connected this VCR to both the LINE IN and LINE OUT jacks of the other VCR, select the input correctly to prevent a humming noise.
- You can use the LINE IN 1 jacks for editing. If the other VCR is a monaural type the sound is recorded only on the channel whose jack is connected to the audio plug. To record on both right and left channels, connect the audio plugs to the AUDIO L/R jacks using an audio/video cord (not supplied).

Operation (when recording on this VCR)

Before you start editing

- Turn on the VCR and the TV and set it to the video channel.
- Press INPUT SELECT or CH +/- to display "LINE 1" or "LINE 2" in the display window.
- Press SP/EP to select the tape speed, SP or EP.



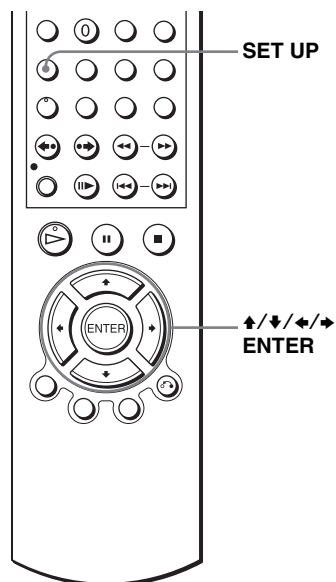
- 1** Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.
- 2** Insert a tape into this (recording) VCR. Search for the point to start recording and press **II**.
- 3** Press **● REC** on this VCR to set it to recording pause.
- 4** To start editing, press the **II** (pause) buttons on both VCRs at the same time.

To stop editing

Press the **■** (stop) buttons on both VCRs.

Tip

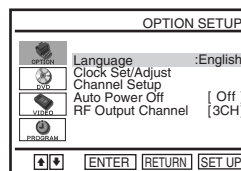
- To cut out unwanted scenes while editing, press **II** on this VCR when an unwanted scene begins. When it ends, press **II** again to resume recording.

Additional Information**General setup information****1**

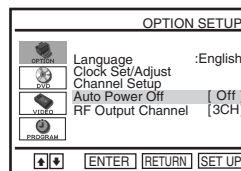
SET UP



Press SET UP when the DVD player is in stop mode, then press $\uparrow/\downarrow$ to select select (OPTION), then press ENTER.

**2**

Press $\uparrow/\downarrow$ to select the option to change.

**3**

Press $\leftarrow/\rightarrow$ to change the setting.

When changing the “RF Output Channel,” confirmation messages will appear. Press ENTER to confirm the messages.

4

SET UP

Press SET UP to exit the menu.

**Menu choices**

The default settings are indicated in bold print.

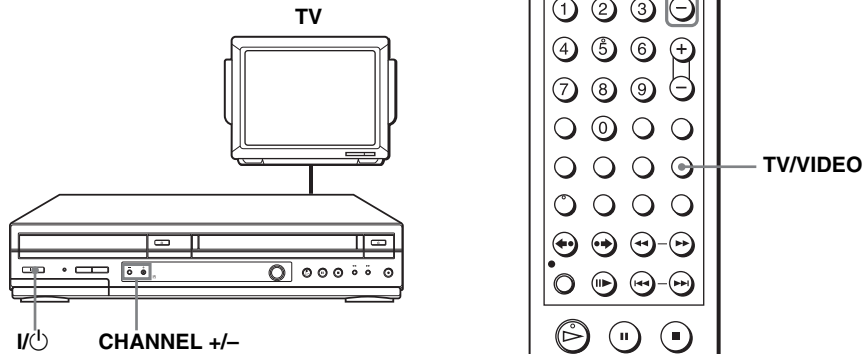
Menu option	Set this option to
Auto Power Off	• “Off” to deactivate the Auto Power Off function. • “1hr”/“2hr” to turn the DVD-VCR off automatically if no signal is received and you do not press any of the buttons during this time.
RF Output Channel	• “3CH” when using channel 3 to receive the VCR signal. • “4CH” when using channel 4 to receive the VCR signal. For details, see page 110.

Additional Information**continued**

General setup information | 109

Setting the RF Output channel

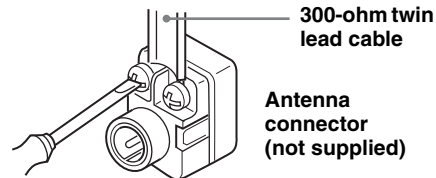
When connecting the DVD-VCR to the TV using only the antenna cable, you must set the RF Output channel in the "OPTION SETUP" menu so that the TV can receive the correct signal from the DVD-VCR.



- 1** Set the RF Output channel to "3CH" or "4CH" (see page 108 to set the channel), whichever channel is not used in your area. If both are used, set the switch to either channel.
 - 2** Press I/⏻ to turn on the DVD-VCR.
 - 3** Press TV/VIDEO to turn on "VIDEO" in the DVD-VCR's display window.
 - 4** Press CH +/- to display a channel number in the display window.
Select an active channel number in your area.
 - 5** Turn on your TV and set it to the channel you selected in step 1 (3CH or 4CH).
The channel you selected in step 4 appears on the TV screen. If the channels change when you press CH +/-, you have made the correct setting.
- Whenever you use the DVD-VCR, set the TV to the channel selected in step 1.

Attaching the external antenna connector

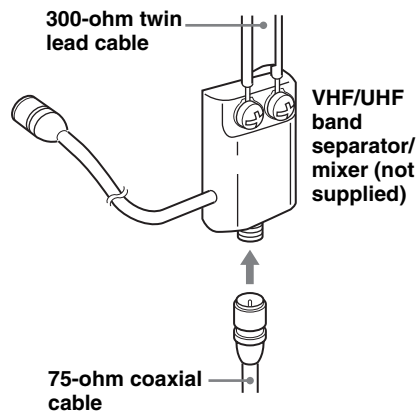
When using a 300-ohm twin lead cable for a VHF/UHF antenna, use an antenna connector (not supplied) to connect the antenna to the DVD-VCR.



- 1** Loosen the screws on the antenna connector.
- 2** Wind the twin leads around the screws on the antenna connector.
- 3** Retighten the screws.

Attaching a VHF/UHF band mixer

When using both a 75-ohm coaxial cable and a 300-ohm twin lead cable for a VHF/UHF antenna, use a VHF/UHF band separator/mixer (not supplied) to connect the antenna to the DVD-VCR.



- 1** Loosen the screws on the mixer.
- 2** Wind the twin leads around the screws on the mixer.
- 3** Retighten the screws.
- 4** Connect the 75-ohm coaxial cable to the mixer.

Additional Information

Troubleshooting

If you have any questions or problems not covered below, please consult your nearest Sony dealer. (For customers in USA)

General Troubleshooting

	Symptom	Remedy
Power	The I/⏻ switch does not function.	Connect the AC power cord securely.
	The power is turned on but the DVD-VCR does not operate.	Moisture condensation has occurred. Turn the power off, unplug the AC power cord and leave the DVD-VCR to dry for over three hours.
Clock	The clock has stopped and "--:--" appears in the display window.	The clock stops if the DVD-VCR is disconnected from the wall outlet. Reset the clock (and timer).
Others	The remote commander does not function.	- Make sure you are pointing the remote commander at the remote sensor on the DVD-VCR. - Replace all the batteries in the remote commander with new ones if they are weak. - Make sure the TV / DVD·VIDEO switch is set correctly. - Select correctly VIDEO or DVD with the SELECT DVD/VIDEO button.
	The tracking meter does not appear on the screen.	The recording condition of the tape is very poor and tracking cannot be adjusted.
	You cannot control other TV's.	Set your TV's code number. The code number may change when you replace the batteries of the remote commander.

DVD Troubleshooting

	Symptom	Remedy
Picture	There is no picture/picture noise appears.	• Re-connect the connecting cord securely. • The connecting cords are damaged. • Check the connection to your TV (page 13) and switch the input selector on your TV so that the signal from the player appears on the TV screen. • The disc is dirty or flawed. • If the picture output from your player goes through your VCR to get to your TV or if you are connected to a combination TV/VIDEO player, the copy-protection signal applied to some DVD programs could affect picture quality. If you still experience problems even when you connect your player directly to your TV, please try connecting your player to your TV's S-VIDEO input (page 63). • You have set the player to progressive format (the PROGRESSIVE indicator lights up in orange) even though your TV cannot accept the progressive signal. In this case, set "Progressive" to "Off" (page 69). • Even if your TV is compatible with progressive format (525p) signals, the image may be affected when you set the player to progressive format. In this case, set "Progressive" to "Off" and the player is set to normal (interlace) format (page 67). • COMPONENT VIDEO OUT jack is not used or "Progressive" of the "SCREEN SETUP" menu is not set correctly while the PROGRESSIVE indicator lights up in orange. Check the setting (page 67) and connection (page 64). • 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 525 progressive scan picture problems, it is recommended that the user switch the connection to the "standard definition" output. If there are questions regarding our TV set compatibility with this model 525p DVD player, please contact our customer service center.
	Even though you set the aspect ratio in "TV Type" of the "SCREEN SETUP" menu the picture does not fill the screen.	• The aspect ratio of the disc is fixed on your DVD.
	There is no picture from your VCR connected to the LINE IN jacks.	• The DVD player must be in standby mode to view pictures from your VCR.
Sound	There is no sound.	• Re-connect the connecting cord securely. • The connecting cord is damaged. • The player is connected to the wrong input jack on the amplifier (receiver) (page 14). • The amplifier (receiver) input is not correctly set. • The player is in pause mode or in Slow-motion Play mode. • The player is in fast forward or fast reverse mode. • If the audio signal does not come through the DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack, check the audio settings (page 65).

Additional Information

continued

Troubleshooting 113

	Symptom	Remedy
Sound	Sound is noisy.	When playing a CD with DTS sound tracks, noise will come from the LINE OUT L/R (AUDIO) jacks (page 36) or DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack.
	The sound volume is low.	The sound volume is low on some DVDs. The sound volume may improve if you set "Audio DRC" to "TV Mode" (page 66).
Operation	The disc does not play.	- The disc is turned over. - Insert the disc with the playback side facing down on the disc tray. - The disc is skewed. - The player cannot play certain discs (page 6). - The region code on the DVD does not match the player. - Moisture has condensed inside the player (page 3). - The player cannot play CD-Rs, CD-RWs, or DVD-Rs that are not finalized (page 7). - Make sure the <u>TV / DVD-VIDEO</u> switch is set correctly. - Select correctly VIDEO or DVD with SELECT DVD/VIDEO button.
	The MP3 audio track cannot be played (page 89).	- The DATA CD is not recorded in the MP3 format that conforms to ISO9660 Level 1/Level 2 or Joliet. - The MP3 audio track does not have the extension ".MP3." - The data is not formatted in MP3 even though it has the extension ".MP3." - The data is not MPEG1 Audio Layer 3 data. - The player cannot play audio tracks in MP3PRO format.
	The JPEG image file cannot be played.	- The DATA CD is not recorded in JPEG format that conforms to ISO9660 Level 1/Level 2 or Joliet. - The JPEG image file does not have the extension ".JPG" or ".JPEG." - The data is not formatted in JPEG even though it has the extension ".JPG" or ".JPEG." - Length or width of the image is more than 4720 dots.
	The title of the MP3 audio album/track or JPEG image album/file is not correctly displayed.	The player can only display numbers and alphabet. Other characters are displayed as asterisks.
	The disc does not start playing from the beginning.	- Program play, shuffle play, or repeat play, has been selected (pages 81, 83, 84). - Resume play has taken effect (page 35).
	The player starts playing the disc automatically.	The disc features an auto playback function.
	Playback stops automatically.	While playing discs with an auto pause signal, the player stops playback at the auto pause signal.
	You cannot perform some functions such as stop, search, slow-motion play, repeat play, shuffle play, or program play.	Depending on the disc, you may not be able to do some operations. See the operating manual that comes with the disc.

	Symptom	Remedy
Operation	The language for the sound track cannot be changed.	- Try using the DVD's menu instead of the direct selection button on the remote (page 76). - Multilingual tracks are not recorded on the DVD being played. - The DVD prohibits the changing of the language for the sound track.
	The subtitle language cannot be changed or turned off.	- Try using the DVD's menu instead of the direct selection button on the remote (page 76). - Multilingual subtitles are not recorded on the DVD being played. - The DVD prohibits the changing of the subtitles.
	The angles cannot be changed.	- Try using the DVD's menu instead of the direct selection button on the remote (page 76). - Multi-angles are not recorded on the DVD being played. - The DVD prohibits changing of the angles.
	The player does not operate properly.	When static electricity, etc., causes the player to operate abnormally, unplug the player.

VCR Troubleshooting

	Symptom	Remedy
Playback	The playback picture does not appear on the TV screen.	Make sure the TV is set to the channel for the VCR. If you are using a monitor, set it to video input.
	The picture is not clear.	- Adjust the tracking with the TRACKING +/- buttons. - The video heads are dirty (see the last page of "Troubleshooting"). Clean the video heads using a Sony video head cleaning cassette. If a Sony cleaning cassette is not available in your area, have the heads cleaned at your nearest Sony dealer (a standard service fee will be charged). Do not use a commercially available liquid type cleaning cassette, as it may damage the video heads. - The video heads may have to be replaced. Consult your local Sony dealer for more information.
	The picture rolls vertically during picture search.	Adjust the vertical hold control on the TV or monitor.
	The picture has no sound.	- The tape is defective. - If you made A/V connections, check the audio cord connection.
Recording	A TV program does not appear on the TV screen.	- Make sure the TV is set to the channel for the VCR. If you are using a monitor, set it to video input. - Select the correct source with the INPUT SELECT or CH +/- buttons. Select a channel number when recording TV programs; select "L1" or "L2" when recording from other equipment.
	TV reception is poor.	Adjust the TV antenna.

Additional Information

continued

Troubleshooting 115

	Symptom	Remedy
Recording	The tape starts playing as soon as it is inserted.	The safety tab has been removed. To record on this tape, cover the tab hole.
	The tape is ejected when you press ● REC.	Check that the safety tab has not been removed.
	Nothing happens when you press ● REC.	Make sure the tape is not at its end.
Timer recording	The timer does not operate.	- Check that the clock is set. - Make sure a tape has been inserted. - Check that the safety tab has not been removed. - Make sure the tape is not at its end. - Make sure a program has been set for timer recording. - Make sure your timer settings are past the current time. - Check that the cable box is turned on. - The clock stops if the DVD-VCR is disconnected from the wall outlet for more than one minute. Reset the clock and timer. - Turn the power off and unplug the AC power cord.
Others	A tape cannot be inserted.	Check that a tape is not already in the tape compartment.
	The VCR mechanism needs to be cleaned.	Clean the cabinet, panel and controls with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine.
	Control by AV mouse is not possible.	The unit is not compatible with satellite TV receiver AV mouse, etc.

Symptoms caused by contaminated video heads

• Normal picture



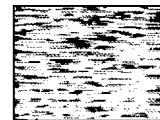
• Rough picture



• Unclear picture



• No picture (or black & white screen appears)



initial
contamination

terminal

Glossary

Chapter (page 37)

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

Dolby Digital (pages 61 and 66)

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

Dolby Surround (Pro Logic) (page 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 (page 66)

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

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

DVD (page 6)

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

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

The picture data uses the MPEG 2 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 (average) of its original size. The DVD also uses a variable rate coding technology that changes the data to be allocated according to the status of the picture. Audio information is recorded in a multi-channel format, such as Dolby Digital, 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.

DVD-RW (page 6)

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

DVD+RW (page 6)

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

continued

Glossary 117

Interlace format

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.

Progressive format (pages 64 and 69)

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 525 progressive format.

Title (page 37)

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

Track (page 37)

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

Specifications

System

Laser
Semiconductor laser

Format
VHS NTSC standard

Video recording system
Rotary head helical scanning FM system

Video heads
Double azimuth four heads

Video signal
NTSC color, EIA standards

Tape speed
SP: 33.35 mm/s (1 $\frac{3}{8}$ inches/s)
EP: 11.12 mm/s ($\frac{1}{16}$ inches/s)
LP: 16.67 mm/s ($\frac{1}{16}$ inches/s),
playback only

Maximum recording/playback time
8 hrs. in EP mode (with T-160 tape)

Rewind time
Approx. 1 min (with T-120 tape)

Tuner section

Channel coverage
VHF 2 to 13
UHF 14 to 69
CATV A-8 to A-1, A to W, W+1 to W+84

Antenna
75-ohm antenna terminal for VHF/UHF

Inputs and outputs

LINE IN 1 and LINE-2 IN
VIDEO IN, phono jack (1 each)
Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
AUDIO IN, phono jacks (2 each)
Input level: 327 mVrms
Input impedance: more than 47 kilohms

LINE OUT
VIDEO OUT, phono jack (1)
Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
AUDIO OUT, phono jacks (2)
Standard output: 327 mVrms
Load impedance: 47 kilohms
Output impedance: less than 10 kilohms

DIGITAL OUT
OPTICAL, Optical output jack
-18 dBm (wave length: 660 nm)
COAXIAL, phono jack
Output signal: 0.5 Vp-p, 75 ohms

COMPONENT VIDEO OUT (Y, Pb, Pr)

Phono jack
Y: 1.0 Vp-p/Pb, Pr: 0.7 Vp-p, 75 ohms

S-VIDEO OUT

4-pin, mini-DIN jack
Y: 1.0 Vp-p, unbalanced, sync negative
C: 0.286 Vp-p, load impedance 75 ohms

Timer section

Clock
Quartz locked

Timer indication
12-hour cycle

Timer setting
8 programs (max.)

General

Power requirements
120 V AC, 60 Hz

Power consumption
25 W

Power back-up
Back-up duration: 0 min

Operating temperature
0°C to 45°C (32°F to 113°F)

Storage temperature
-20°C to 60°C (-4°F to 140°F)

Operating humidity
25% to 80%

Dimensions including projecting parts and controls (w/h/d)
Approx. 430 × 85 × 287 mm
(Approx. 17 × 3.4 × 11.5 inches)

Mass
Approx. 3.6 kg (Approx. 7.9 lbs)

Supplied accessories

Remote commander (1)
Size AA (R6) batteries (2)
75-ohm coaxial cable with F-type connectors (1)
Audio/video cord (pinplug ×3 ↔ pinplug ×3) (1)

Design and specifications are subject to change without notice.

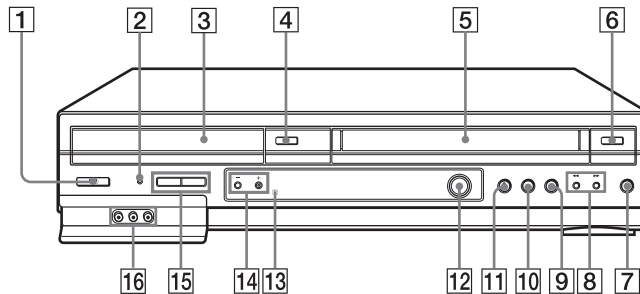
ENERGY STAR® is a U.S. registered mark.
As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Index to parts and controls

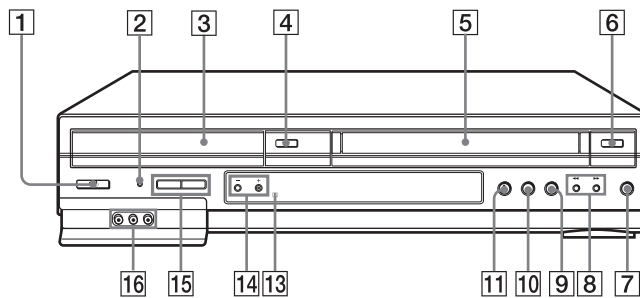
Refer to the pages indicated in parentheses () for details.

Front panel

SLV-D550P



SLV-D350P



1 I/⏻ POWER (on/standby) switch (11) (35) (42)

2 PROGRESSIVE indicator (64) (69)

3 Disc tray (33)

4 ≡ (open/close) button (33) (34)

5 Tape compartment (44)

6 ≡ (eject) button (42)

7 ● REC (record) button (45)

8 ◀◀ (rewind)/▶▶ (fast-forward) button (35) (42)

9 ■ (stop) button (34) (42)

10 ■■ (pause) button (34) (42)

11 ▷ (play) button*¹ (34) (42)

12 DIAL TIMER*² (50)

13 □ Remote sensor (10)

14 CHANNEL +/-/TRACKING buttons*¹ (44) (103)

15 SELECT DVD/VIDEO buttons (10)

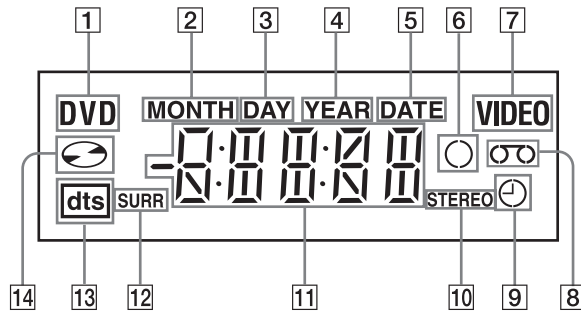
16 LINE-2 IN VIDEO/AUDIO L/R jacks*³ (106)

*¹ ▷ and CHANNEL + buttons have a tactile dot. Use the tactile dot as a reference.

*² SLV-D550P only

*³ Covered

Display window



1 DVD indicator (34)

2 MONTH indicator* (50)

3 DAY indicator* (53)

4 YEAR indicator* (53)

5 DATE indicator* (50)

6 Record indicator (46)

7 VIDEO indicator (42)

8 Tape indicator (42)

9 Timer indicator (48)

10 STEREO indicator (100)

11 Playing time/clock/current status indicator (34) (42)

12 SURR (surround) indicator (87)

13 DTS indicator (66)

14 Disc indicator (34)

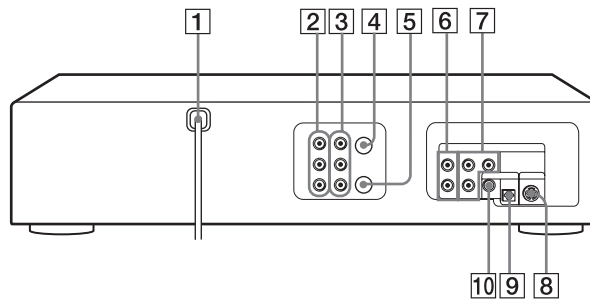
* SLV-D550P only

Additional Information

continued

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Rear panel



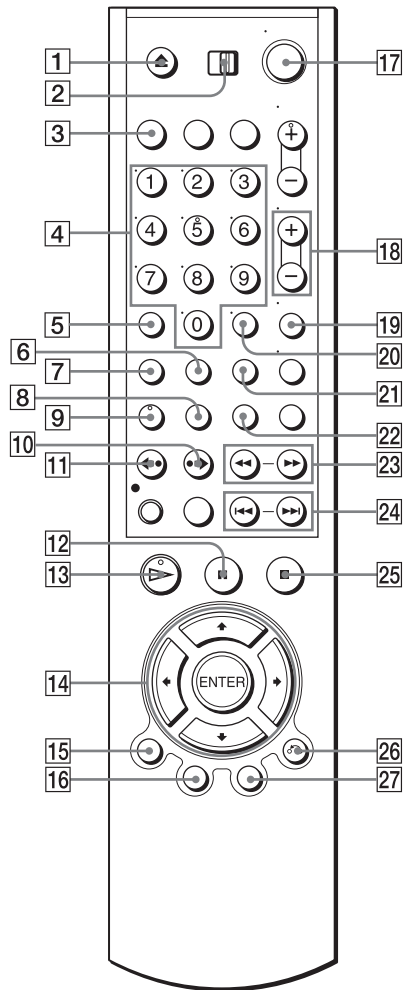
DVD player and VCR

- 1** AC power cord (13) (16)
- 2** LINE IN 1 VIDEO/AUDIO L/R jacks (106)
- 3** LINE OUT VIDEO/AUDIO L/R jacks (14)
- 4** IN (FROM ANT.) connector (15)
- 5** OUT (TO TV) connector (15)

DVD player only

- 6** LINE OUT AUDIO L/R jacks (63)
- 7** COMPONENT VIDEO OUT Pr/Pb/Y jacks (64)
- 8** S-VIDEO OUT jack (63)
- 9** DIGITAL AUDIO OUT/OPTICAL jack (62)
- 10** DIGITAL AUDIO OUT/COAXIAL jack (62)

Remote commander for DVD



- 1** ▲ (open/close) button (33) (34)
- 2** TV / DVD•VIDEO switch (10)
- 3** SELECT DVD button (10)
- 4** Number buttons*¹ (29)
- 5** CLEAR button (43) (48) (82)
- 6** ANGLE button (79)

- 7** SET UP button (20)
- 8** SUBTITLE button (80)
- 9** AUDIO button*¹ (86) (100)
- 10** ●➡ SKIP button (34)
- 11** ◀● REPLAY button (34)
- 12** ■ PAUSE button (34)
- 13** ▷ PLAY button*¹ (34)
- 14** ▲/▼/◀/➡ buttons (20)
ENTER button*² (20)
- 15** DISPLAY button (37)
- 16** TOP MENU button (76)
- 17** I/⏻ (on/standby) switch (11) (35)
- 18** VOL (volume) +/- buttons (11)
- 19** ZOOM button (78)
- 20** ENTER button*² (20)
- 21** REPEAT button (81)
- 22** SURROUND button (87)
- 23** ◀◀ ◀◀/▶▶ ▶▶ buttons (34)
- 24** ◀◀◀ PREV (previous)/▶▶▶ NEXT (next) button (34)
- 25** ■ STOP button (34)
- 26** ⌂ RETURN button (23)
- 27** MENU button (76)

*¹ Number 5, AUDIO and ▷ PLAY buttons have a tactile dot. Use the tactile dot as a reference.

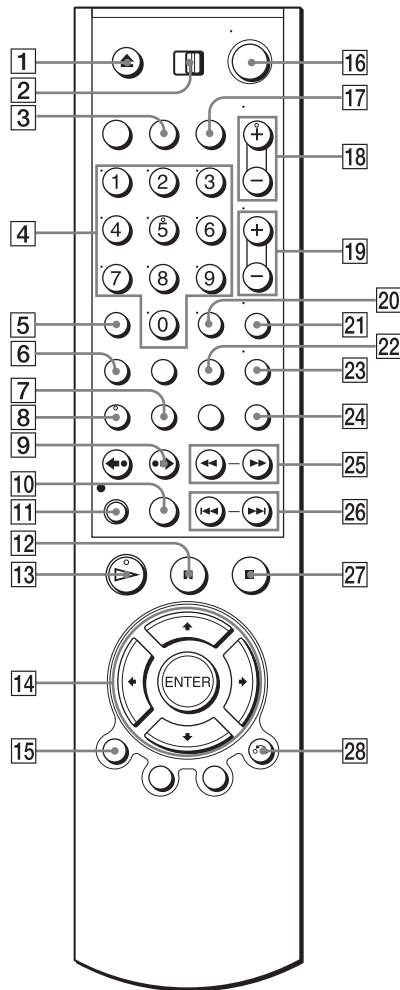
*² The ENTER buttons 14 and 20 can be used interchangeably.

Additional Information

continued

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Remote commander for VIDEO



1 ▲ (eject) button (42)

2 TV / DVD•VIDEO switch (10)

3 SELECT VIDEO button (10)

4 Number buttons*¹ (29)

5 CLEAR button (43)

6 SET UP button (20)

7 TIMER button (47)

8 AUDIO button*¹ (100)

9 ●➡ SKIP button (43)

10 SP (Standard Play)/EP (Extended Play) button (45)

11 ● REC (record) button (45)

12 ■ PAUSE button (42)

13 ▷ PLAY button*¹ (42)

14 ▲/▼/↙/↘ buttons (20)
ENTER button*² (20)

15 DISPLAY button (43)

16 I/⏻ (on/standby) switch (11) (42)

17 VCR Plus+ button*³ (55)

18 CH (channel)/TRACKING +/- buttons*¹ (44) (103)

19 VOL (volume) +/- buttons (11)

20 ENTER button*² (20)

21 MUTING button (11)

22 SEARCH button (101)

23 TV/VIDEO button (46)

24 INPUT SELECT button (46)

25 ◀◀ (rewind)/▶▶▶▶ (fast-forward) buttons (42)

26 ◀◀/▶▶ SHUTTLE button (42)

■ STOP button (42)

↺ RETURN button (56)

*¹ Number 5, AUDIO, ▷ PLAY and CH/TRACKING + buttons have a tactile dot. Use the tactile dot as a reference.

*² The ENTER buttons 14 and 20 can be used interchangeably.

*³ SLV-D550P only

DVD Audio/Subtitle Language

Abbreviation	Language
ARA	Arabic
CHI	Chinese
CRO	Croatian
CZK	Czech
DAN	Danish
DEU	German
ENG	English
ESP	Spanish
FIN	Finish
FRA	French
GRE	Greek
HUN	Hungarian
IDN	Indonesian
IND	Hindi
ISL	Islandic
ITA	Italian
IWR	Hebrew
JPN	Japanese
KOR	Korean
MAL	Malay
NLD	Dutch
NOR	Norwegian
POL	Polish
POR	Portuguese
RUS	Russian
SVE	Swedish
THA	Thai
TUR	Turkish
VIE	Vietnamese
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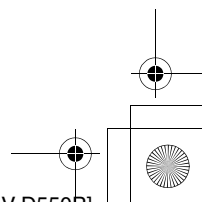
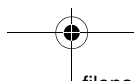
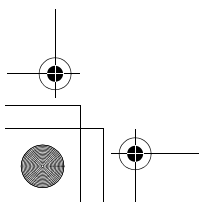
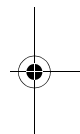
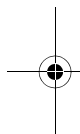
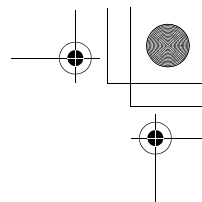
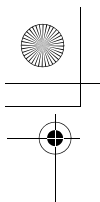
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