



Read this before recording on disc

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

Images that cannot be recorded

Some DVD-Video and broadcasts contain copy-restriction signals to protect copyrights. There are 3 types of copy-restriction signals: “Copy Free”, “Copy Never” and “Copy Once”.

“Copy Free” (unrestricted recording)

Land-based TV broadcasts and images you record yourself with a video camera allow unrestricted recording. There are no restrictions on recording.

“Copy Never” (recording prohibited)

- Images that contain the recording prohibited signal cannot be recorded.
- If the recording prohibited signal appears halfway through an image you are recording, recording is paused at that instant. When the recording prohibited signal ends, recording resumes.
- This unit incorporates a built-in copy guard. It cannot record software or broadcasted programs that contain copy restriction signals designed to protect copyright, etc.

“Copy Once” (one-time recordable)

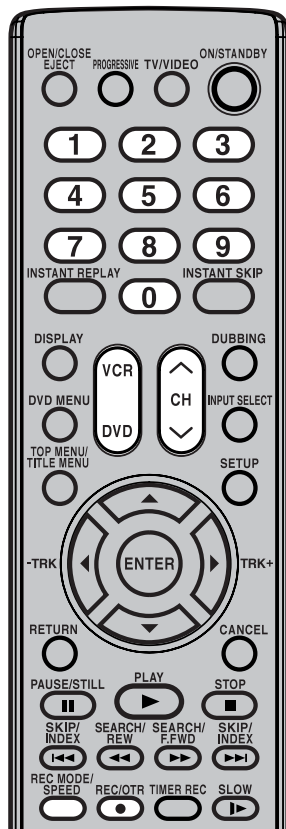
Programs (images) that contain the one-time recordable signal can be recorded only in the VR mode using a DVD-RW disc that supports CPRM Ver. 1.1 and Ver 1.2.

Recording

Recording a TV program



You can record programs you watch on TV onto video tapes or DVDs.



NOTES:

- When recording onto a DVD, it takes some time to start recording when you press **REC/OTR**. Recording starts when you press **REC/OTR** to record onto a video-tape.
- If the erase prevention tab of video tapes is removed, the tape will eject when **REC/OTR** is pressed for recording.

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

Preparation:

- Turn ON the TV and set it to the video input mode.
- Load a recordable DVD or video tape into the unit.
- Press **DVD** or **VCR** to select the appropriate mode.

- Press **REC MODE/SPEED** to select the recording mode.

The recording mode will appear on the TV monitor and change every time **REC MODE/SPEED** is pressed.

VCR recording modes: SP/SLP

DVD recording modes: XP/SP/LP/SLP

SP is the normal recording mode for video tapes. SLP offers 3 times the recording time as SP. For more information on DVD recording modes, see page 50.

VCR mode

00:00:00 SP

DVD mode

SP

- Set the TV/CABLE option to the appropriate position (page 25).

TV - VHF/UHF channels
CABLE - CABLE TV channels

- Press the **numeric keys** or **CH** $\wedge/\vee$ to select the channel to be recorded.

TO SELECT Cable TV CHANNELS:

- 1-9 Press **0** twice and then **1-9** as required.
Example: To select 2, Press "002".
- 10-12 Press **0** first and then the remaining 2 digits in order from left to right.
Example: Press **012** for "12".
- 13-99 Press 2 digits in order.
Example: Press **22** for "22".
- 100-125 Press the 3 digits in order.
Example: Press **110** for "110".

CH 110

TO SELECT TV CHANNELS 1-12:

If only 1 or 2 buttons are pressed, the corresponding channel will be selected in 2 seconds.

VHF/UHF/CABLE CHANNELS

TV	CABLE
VHF	VHF
2-13	2-13
UHF	STD/HRC/IRC
14-69	14-36 (A) (W)
	37-59 (AA) (WW)
	60-83 (AAA) (ZZ)
	84-94 (88) (94)
	95-99 (A-5) (A-1)
	100-125 (100)(125)
	01 (5A)

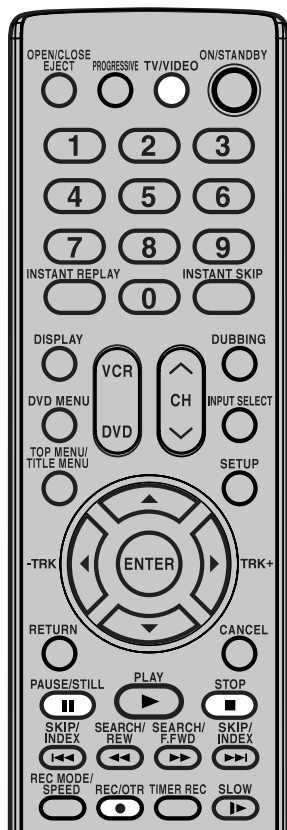
- Press **REC/OTR**.
"●" appears on the screen for about 4 seconds and recording will start.

VCR mode

CH 110

DVD mode

Recording a TV program



Auto Rewind feature

This VCR will automatically rewind the tape when the tape has ended (except during OTR and TIMER REC). It will also eject the tape.

NOTES:

- If the disc space become full, the recording is stopped and "No space on the disc." will appear on the screen.
- In case of a power failure, the program cannot be recorded on the disc during DVD recording. When the power resumes, after the VCR/DVD is turned on, the set checks the disc to repair the error which is caused by a power failure. This checking process may require about 1 minute depending on disc condition.

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

To stop recording

Press **STOP** to stop recording.

"■" will appear on the screen for about 4 seconds.



NOTE:

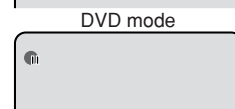
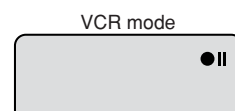
Recording does not stop instantly even if **STOP** is pressed during DVD recording. Recording may continue for as long as 1 minute maximum.

To stop recording temporarily

Press **PAUSE/STILL** to avoid recording unwanted material.

"●||" will appear on screen for about 4 seconds.

Press **REC/OTR** to resume recording.



NOTES:

- In DVD recording, the pause function will be released after 5 minutes to prevent damage. The unit will change to the STOP mode.
- When recording onto a video tape, you can select a recording channel in the recording pause mode. (You cannot change a recording channel in the DVD recording pause mode.)

Recording

Recording one program while watching another

While the unit is recording, press **TV/VIDEO** to select the TV position. The "TV" will light up on the display window and recording will continue. Select the TV channel you want to watch by using the TV channel selector.

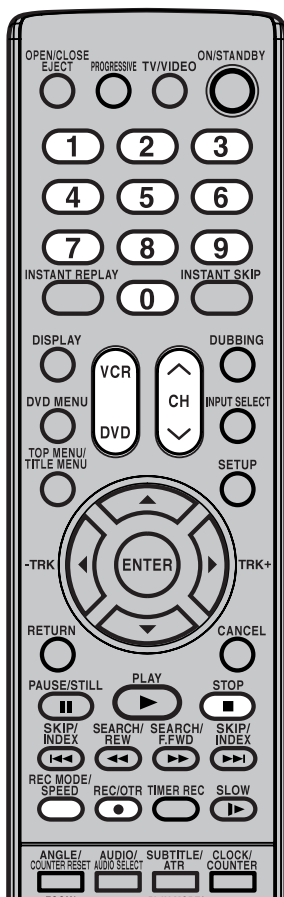
NOTE:

Some CABLE hookups do not permit viewing one channel while recording another. See pages 18 and 19.

One-touch Timer Recording (OTR)



The **One-touch Timer Recording** feature provides a simple and convenient way to make a timed recording.



NOTE:

If you wish to watch the DVD playback during the VCR OTR, press **DVD** to change to DVD mode and perform the DVD playback. You can also playback the VCR during DVD OTR.

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

Preparation:

- Turn ON the TV and set to the video input mode.
- Load a recordable DVD or video tape into the unit.
- Press **DVD** or **VCR** to select the appropriate mode.

Example: One-touch Timer Recording for 30 minutes.

- 1 Press **REC MODE/SPEED** to select the recording mode.
For the recording mode, see step 1 on page 52.

VCR mode

00:00:00 SP

DVD mode

SP

- 2 Set the TV/CABLE option to the appropriate position (See page 25).

TV - VHF/UHF channels
CABLE - CABLE TV channels

- 3 Press **numeric keys** or **CH** ^/v to select the channel to be recorded.

CH 110

- 4 Press **REC/OTR**. Each time you press **REC/OTR** will increase the recording time as shown in the chart below, up to a maximum of 6 hours. The OTR and recording time will appear on the screen for about 4 seconds.

Press	Recording time	Press	Recording time
once	NORMAL REC	7 times	OTR 3:00
twice	OTR - : - -	8 times	OTR 4:00
3 times	OTR 0:30	9 times	OTR 5:00
4 times	OTR 1:00	10 times	OTR 6:00
5 times	OTR 1:30	11 times	OTR - : - -
6 times	OTR 2:00		

VCR mode

OTR 0:30
CH 110

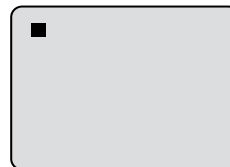
DVD mode

OTR 0:30

To cancel OTR

Press **STOP**.

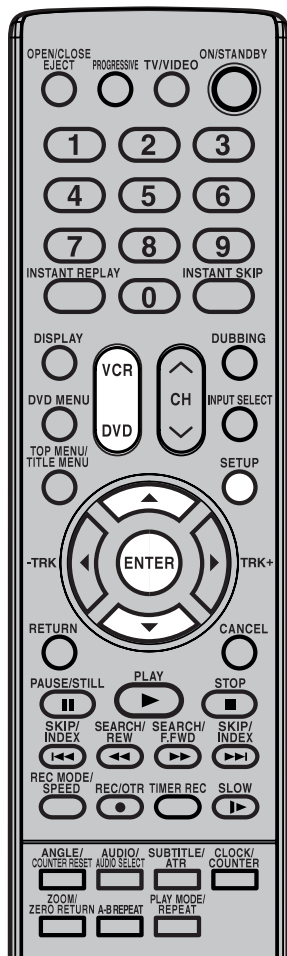
"■" will appear on screen for about 4 seconds.



Timer recording



The timer recording system allows you to select the date, time, channel and record the desired programs. Up to 12 timer programs within a month can be stored in this unit.



NOTE:

If a recordable tape is not inserted or no disc space is available, the timer record indicator "L" flashes. Replace the tape or disc to allow recording.

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

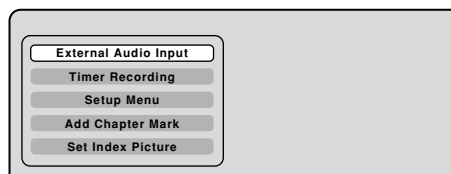
Setting timer recording

Preparation:

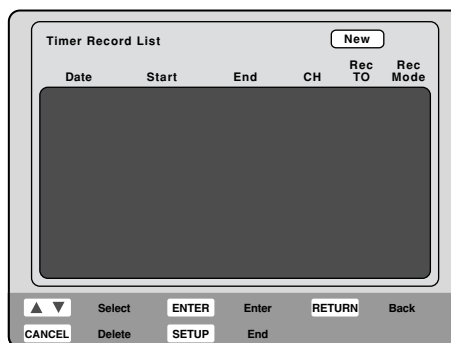
- Turn ON the TV and set to the video input mode.
- Load a recordable DVD or video tape.
- Press **DVD** or **VCR** to select the appropriate mode.
- Confirm that the clock is indicating the correct time.

Example: Set the recording mode to LP; the TV program is on channel 12 starting at 8:00 PM and stopping at 9:30 PM on a date of 20th.

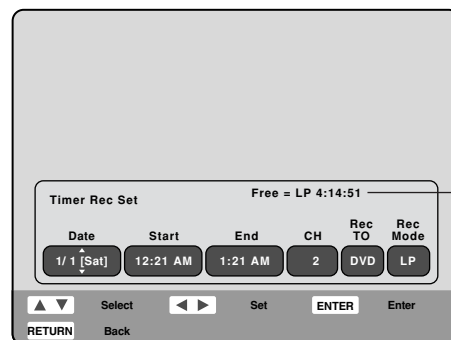
- 1 Press **SETUP**.
The Easy Menu screen appears.



- 2 Press **▲** or **▼** to select "Timer Recording" and press **ENTER**.
The Timer Record List screen will appear.



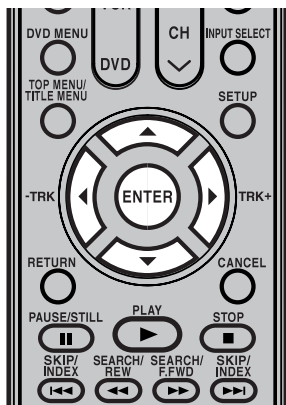
- 3 Press **▲** or **▼** to select "New" and press **ENTER**.
The program screen will appear.



The remaining record time displayed changes to match the recording mode.

Recording

Timer recording



NOTES:

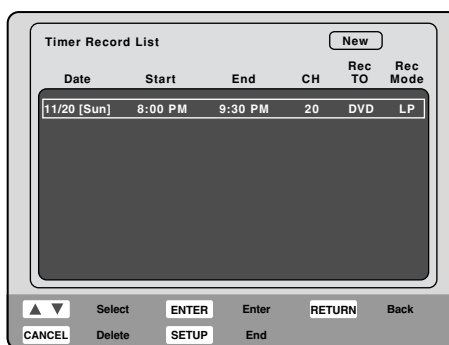
- You can record same day of every week or from Monday to Friday using the items. The items you can select are as follows:
 Every Sun: Recording every Sun.
 Every Mon: Recording every Mon.
 Every Tue: Recording every Tue.
 Every Wed: Recording every Wed.
 Every Thu: Recording every Thu.
 Every Fri: Recording every Fri.
 Every Sat: Recording every Sat.
 Mon-Fri: Recording from Mon. to Fri.
 Mon-Sat: Recording from Mon. to Sat.
 Everyday: Recording everyday.
- The starting and stopping times for recording are displayed on the 12-hour (am/pm) clock. Twelve o'clock midnight is displayed as "12:00AM", whereas twelve o'clock noon is displayed as "12:00PM".

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

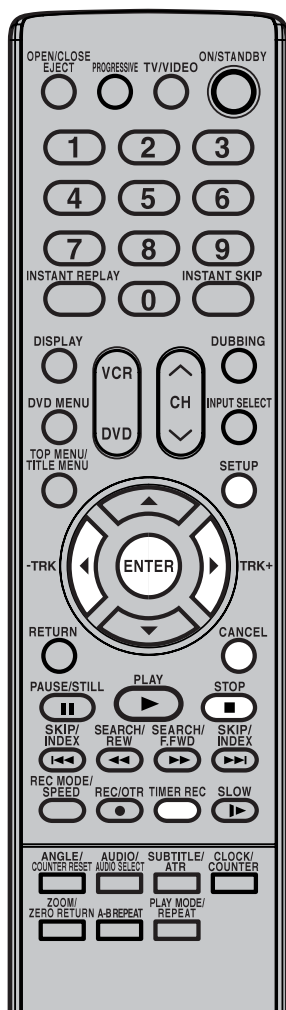
- Press ◀ or ▶ to select "Date".
Press ▲ or ▼ to select the date to be recorded from the list and press **ENTER**.
- Press ◀ or ▶ to select "Start".
Set the recording start time.
 - To switch over the selection item (hour or minute), press ◀ or ▶.
 - Press ▲ or ▼ to adjust the time.
- Press ◀ or ▶ to select "End".
Set the recording stop time in the same manner in step 5.
- Press ◀ or ▶ to select "CH".
 - Press ▲ or ▼ to select the channel to be recorded.
 - You can select the external input (Line1 or Line2) by pressing ▲ or ▼.
- Press ◀ or ▶ to select "Rec To".
Select the media (DVD or VCR) to be recorded from the list.
- Press ◀ or ▶ to select "Rec Mode".
The recording modes for the media selected in "Rec To" item are listed up.
Select the recording mode.
For the recording modes in VCR, see page 46. For the recording modes in DVD, see page 50.



- Press **ENTER**.
The timer program is determined and the Timer Record List screen appears again.



Timer recording



NOTES:

- Recording starts a few seconds before the preset starting time. Timer recording starts before the preset time; one second for DVD, or five seconds for VCR.
- You can playback the DVD during the VCR timer recording. You can also playback the VCR during the DVD timer recording.
- You cannot record the DVD during the VCR timer recording. You cannot also record the VCR during the DVD timer recording.

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

- When you enter the other program for the timer recording, repeat the steps 3 to 10.
- Press **SETUP**. The Timer Record Set screen disappears and the display will return to the normal screen.
- Press **TIMER REC**. The timer indicator "□" will appear on the display and the unit stands by for recording.

Stopping the timer recording

After the timer recording has started, you can stop the timer recording (but continue recording), or stop recording completely if you need.

To stop the timer recording, press **TIMER REC** for more than 2 seconds. Recording continues so that you can manually stop recording whenever you like. When you stop recording completely, press **STOP**.

Checking or changing the timer recording

When you want to check the selected timer recording, follow the steps 1 and 2 of "Setting timer recording" on page 55 and display the Timer Record Set screen.

To change the timer recording, select the program to be changed and press **ENTER**. The program screen will appear. Do step 4 to step 10 on page 56.

When you want to change the program after timer recording starts, stop the timer recording to change the program.

Cancelling the timer recording

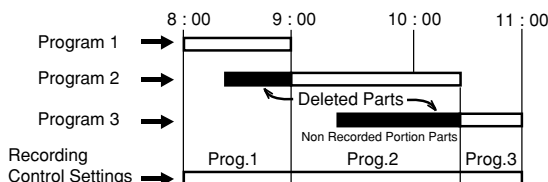
Display the Timer Record List screen.

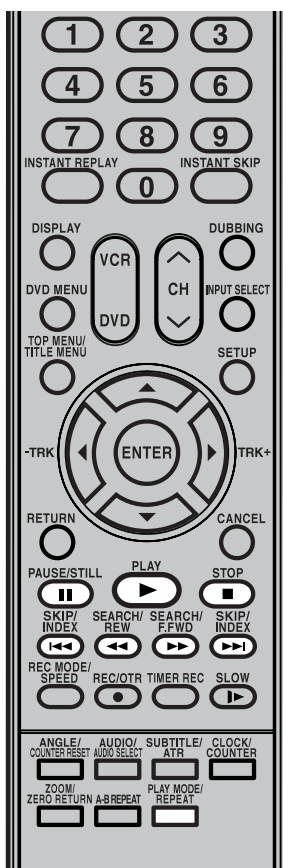
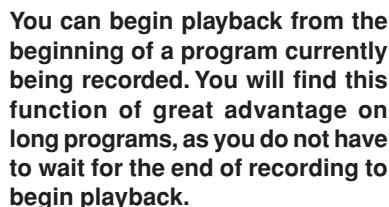
Select the program you want to cancel and press **CANCEL**. "Delete selected Title. Continue?" will appear. Press ◀ or ▶ to select "Yes" and press **ENTER**. The selected program will be erased from the Timer Record List.

In case Timer programs overlap

Do not overlap timer programs as portions of the conflicting programs will be lost. The first recording time has priority over the next recording time as shown in the diagram below.

In this case, the next recording time is delayed a maximum of about 1 minute.





- Chase playback is not available when recording a DVD-RW/R disc and video tape.
- Chase playback is not available when recording in XP mode.
- A-B repeat does not work during chase playback.
- Chase playback does not work until 5 seconds of recording have elapsed.
- If you press **DISPLAY** during chase playback, the information screen is displayed (see page 33).

- 1 While recording a TV program on the DVD-RAM disc, press **PLAY** to start chase playback.
The TV program as it is being recorded will played back.
- 2 Locate a scene you want through the following operations if necessary.

Press **PAUSE**.

- To resume chase playback, press **PLAY**.

Press **SEARCH** $\ll/\gg$. Every press of **SEARCH**, it increase the speed of the search.

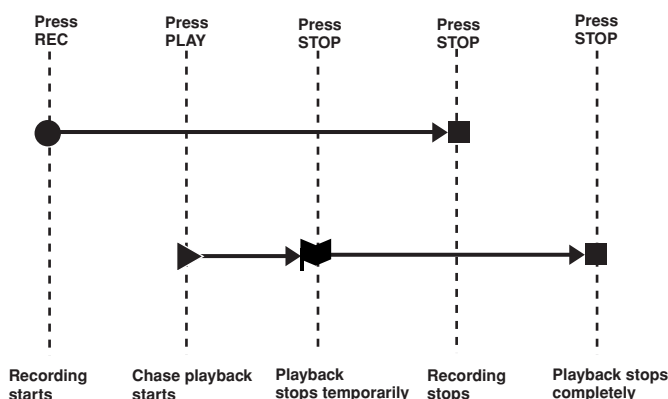
- To resume chase playback, press **PLAY**.
- If the playback position catches up to within about 60 seconds, chase playback resumes. It may differ depending on the recording condition and search speed.

Press **SKIP** to locate a chapter that you want to watch.

- If you press **SKIP ►►** while playing back the latest chapter, it starts playing back from about 15 seconds before the recording position.

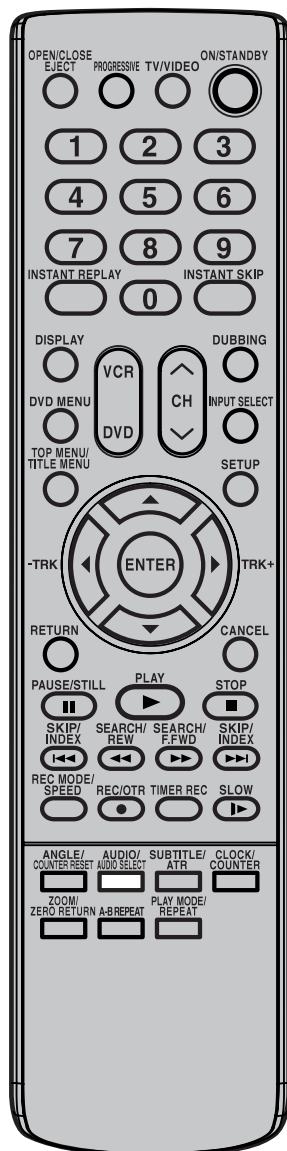
Press **PLAY MODE** enables you to do a Time Search. (See page 35.)

- 3 Press **STOP** to stop the playback.
The DVD/VCR memorizes the stopped point, depending on the disc. "■" appears on the screen for approx. 4 seconds. "▶" keeps blinking in the display until the playback is stopped completely.
Press **PLAY** to resume playback (from the scene point).
- 4 Press **STOP** again to stop the recording.
Then press **STOP** again, the DVD / VCR will clear the stopped point.



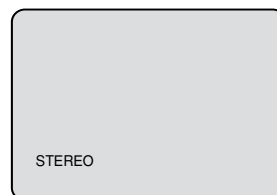
Stereo recording and playback

The VHS Hi-Fi audio system permits high fidelity recording of MTS STEREO TV broadcasts.



When a MTS STEREO broadcast is received, the word "STEREO" will appear on the screen and the program can be viewed or recorded in stereo.

The Hi-Fi STEREO recording procedure is the same as for normal recordings.



NOTE:

When using a Cable TV system, stereo TV programs may be transmitted over a mono cable channel. In this case the word "STEREO" will not appear and the sound will be in mono.

Output selection



When viewing an MTS STEREO TV program, or playing a prerecorded Hi-Fi STEREO on video tape, press **AUDIO SELECT** to select how the audio will be heard through the speakers. Normally set to the Hi-Fi STEREO position, this button can be set to the MONO position if the stereo audio is of poor quality. The "R" and "L" positions allow the audio from the Right or Left Hi-Fi channel to be heard over both TV speakers. This button has no effect when viewing a monaural audio program. Each time when you press the button, output selection display appears on the screen for several seconds. Refer to the chart below.

Recording

OUTPUT SELECTION	SOUND HEARD ON BOTH SPEAKERS
STEREO	STEREO
L ch	LEFT CHANNEL AUDIO
R ch	RIGHT CHANNEL AUDIO
MONO	MONO

Output selection for DVD



It is not possible to switch between channels otherwise as only the channel selected in the setting of SAP (Second Audio Program; ON or OFF) is recorded (see page 27).

NOTE:

When a stereo or monaural broadcast is recorded, either stereo or monaural is played back respectively.

NOTES:

- When playing back a video tape or disc that is not recorded in Hi-Fi stereo mode, the audio will automatically be monaural.
- When listening to a Hi-Fi video tape, disc or MTS broadcast through the RF OUT (UHF/VHF) jack (Audio/Video cable not connected), the sound will be monaural.

Editing the disc

This section explains how to edit the recorded contents on DVD-RWs. However, the items that you can edit vary with the recording formats. In VR mode, you can edit various title menus, whereas in Video mode, you can edit only a few items.

Title menu

When the content is recorded, a title name that includes the date, time, channel number and other information is created automatically.

The title menu can be used when you playback after confirming the contents (see page 32), or when you check the contents recorded on the disc.

Original title

The titles explained above are called original titles; these will be added with every recording. In VR mode, you can do various editing operations i.e., you can rename the titles or add the chapter marks. In addition, you can erase the unnecessary titles to increase the disc space.

Playlist

You can create a playlist based on the original titles.

You can combine or erase undesired chapters.

If you create a playlist, it will become the primary list used by the disc. If you create a playlist to customize your viewing preferences, and choose to delete it, the original titles will not be affected. It is recommended to create and edit the playlist to prevent important titles from being erased accidentally.

Editable items

The items that can be edited are different between original title and playlist.

The items can be edited in each are as follows:

Editing items	VR mode		Video mode
	Original	Playlist	Original
Playback	Y	Y	Y
Creating playlist	Y	N	N
Changing title name	Y	Y	Y
Adding chapter mark	Y	Y	N
Combining chapters	Y	Y	N
Erasing chapter	Y	Y	N
Combining titles	N	Y	N
Erasing titles	Y	Y	Y
Set index picture	Y	Y	N

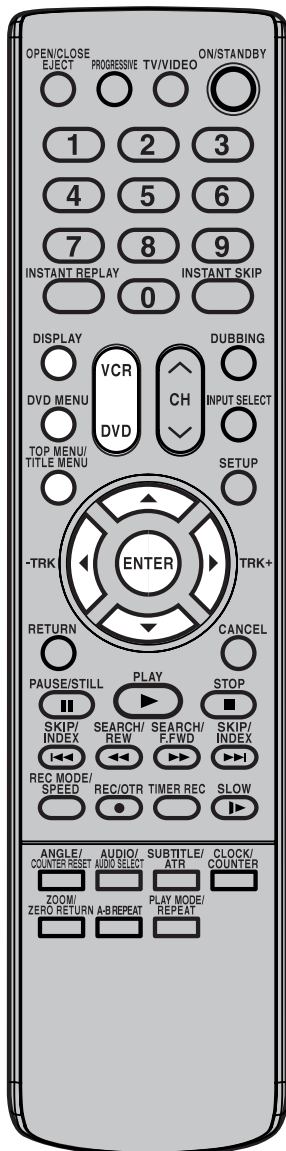
NOTES:

- This unit cannot record or edit a disc which was recorded or edited using another DVD recorder.
- You cannot edit or record the disc on which disc protection is set. In such a case, make sure that the disc protection is cancelled before starting the operation.
- When a scene has been erased, the selected position for erasing may vary slightly from the actual erased position.

Using these editing functions to modify copyrighted content for any purpose other than your private viewing may be prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

Editing a playlist

You can create and edit the playlist based on the original title.



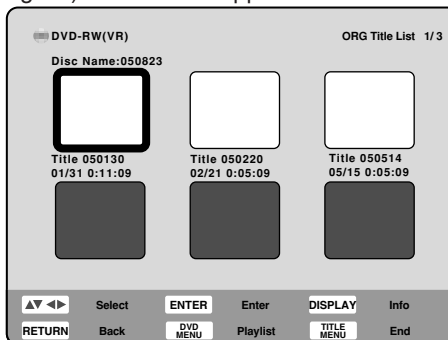
Preparation:

- Turn ON the TV and set to the video input mode.
- Load the recorded DVD-RAM/RW (VR).
- Press **DVD** to select the DVD mode. (The DVD indicator will light.)

Creating a playlist



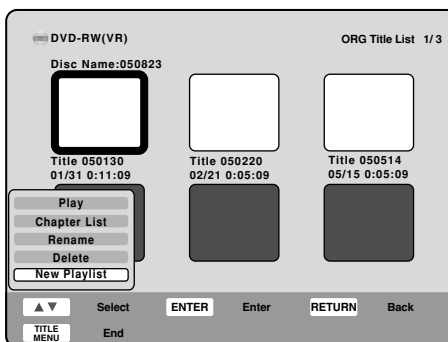
- 1 Press **TITLE MENU**.
ORG(Original) Title List will appear.



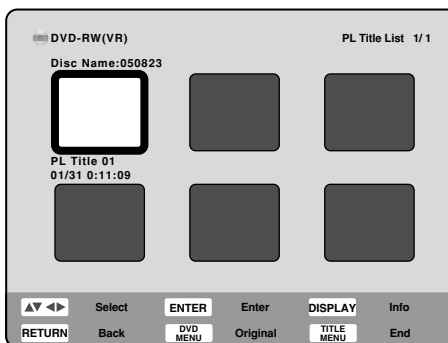
- 2 Press **▲/▼/◀/▶** to select the original title which will be used as the base of a playlist.

- 3 Press **ENTER**.
The editing menu of original title will appear.

- 4 Press **▲** or **▼** to select "New Playlist".



- 5 Press **ENTER**.
The editing menu closes and PL(Playlist) Title List will appear.

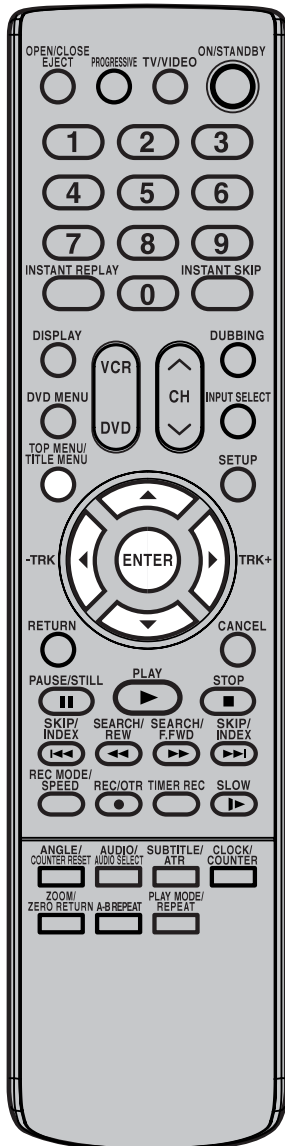


NOTES:

- A playlist can only be created with a DVD-RAM or a DVD-RW in VR mode. You cannot create a playlist with a DVD-RW in Video mode, nor with a DVD-R.
- Each press of **DVD MENU** will change the ORG Title List and the PL Title List.
- You can see the title name, recording time and recording length on the screen when you press **DISPLAY**.

Editing the disc

Editing a playlist



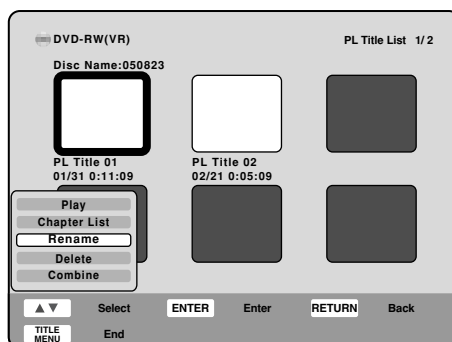
NOTE:

For using the keyboard screen, see "Using the keyboard screen"(page 78).

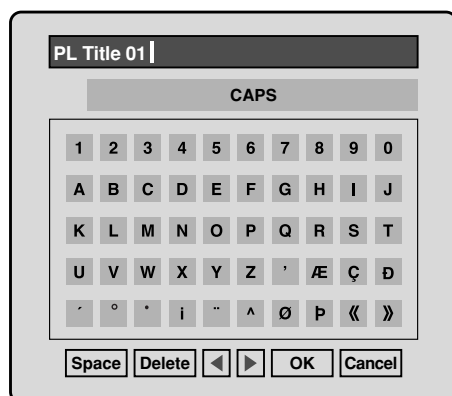
Changing a title name



- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the playlist where you want to change the title name.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "Rename".

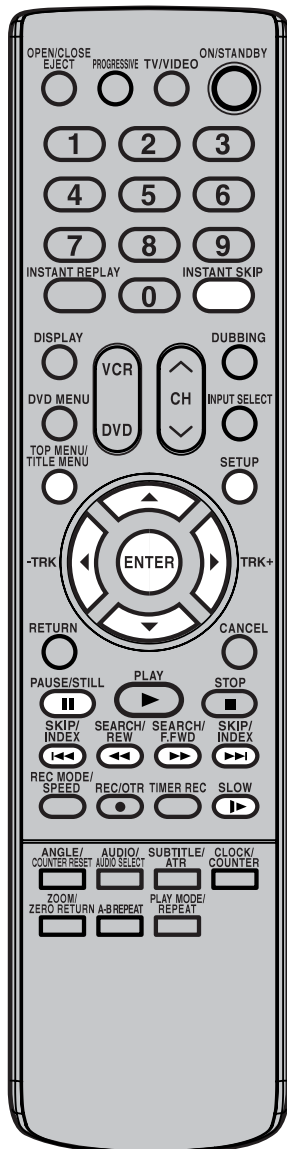


- 3 Press **ENTER**.
The keyboard screen will appear.
- 4 Use the keyboard screen to enter the title name.



- 5 Select "OK" and press **ENTER**.
It returns to the PL Title List.

Editing a playlist



NOTE:

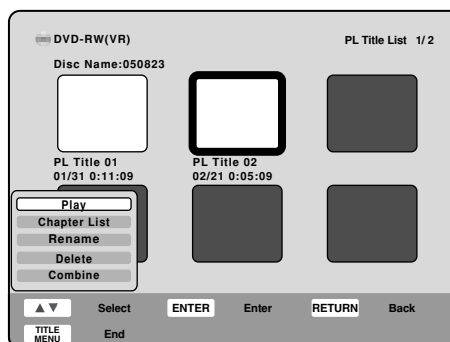
You can automatically add a chapter mark in recording. For more information, see page 29.

Adding a chapter mark

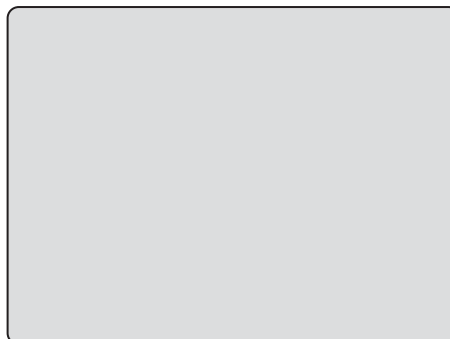


You can add a chapter mark to the original title. You can add up to 999 chapter marks to one disc.

- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the original title where a chapter mark is added.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "Play".



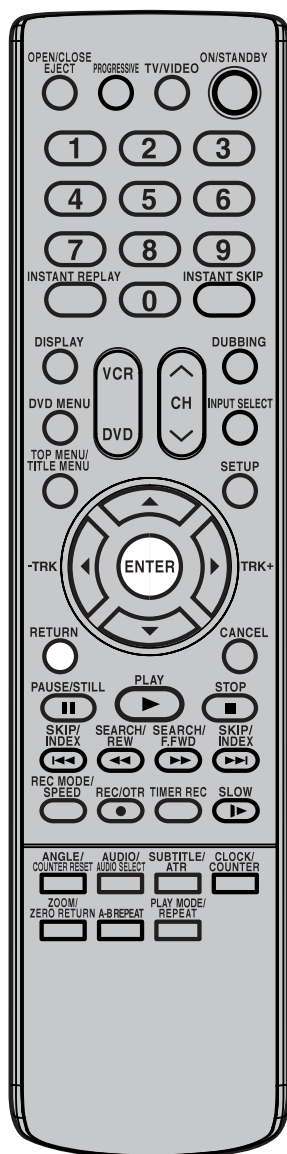
- 3 Press **ENTER** to search a scene where you want to add the chapter mark.
The selected title is played back.



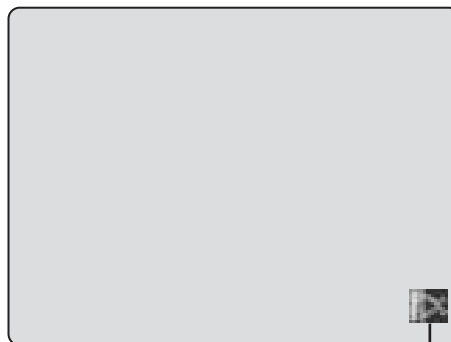
- 4 Press **SETUP** to display Easy Menu.
Press **▲** or **▼** to select "Add Chapter Mark".
- 5 Search the scene by using each operation button (**F.FWD**, **REW**, **SKIP +**, **SKIP -**, **PAUSE/STILL**, **SLOW**, **INSTANT SKIP**) for the playback.

Editing the disc

Editing a playlist



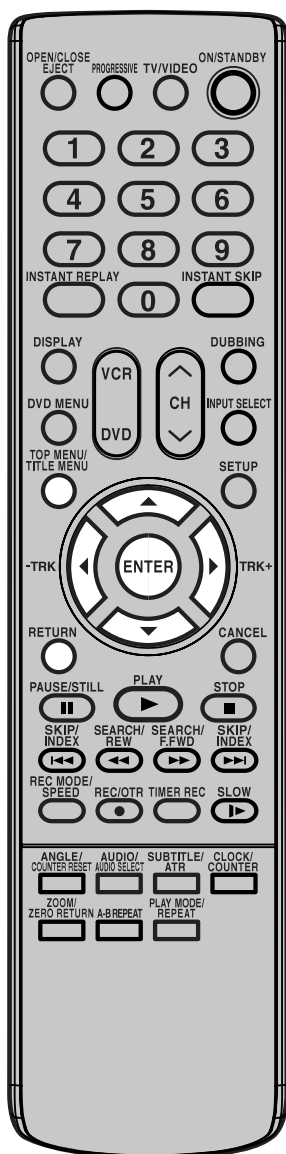
- 6 When the scene you want to add a chapter mark, press **ENTER**.
The position of the added chapter mark is appeared.



The added chapter mark

- 7 If you want to continue to add chapter mark, repeat step 6.
- 8 The chapter marks are finished adding.
• To return to the normal screen, press **RETURN**.

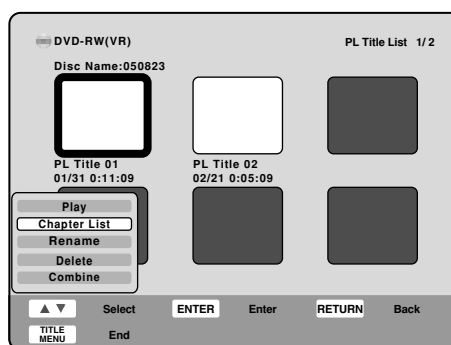
Editing a playlist



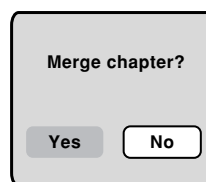
Combining chapters



- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the original titles where you want to combine the chapters.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of playlist.
 - Press **▲** or **▼** to select "Chapter List".



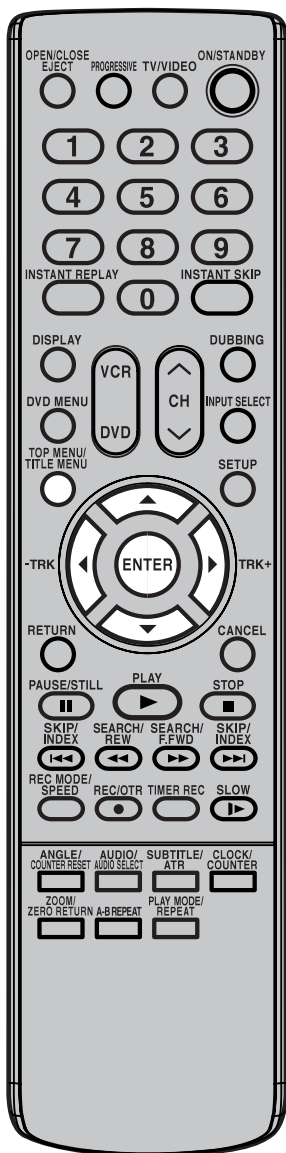
- 3 Press **ENTER**.
The Chapter List will appear.
- 4 Select the chapter that you want to combine.
 - Press **▲/▼/◀/▶** to select the chapter.
 - Press **ENTER** to display the editing menu of Chapter List.
 - Press **▲** or **▼** to select "Combine".
- 5 By pressing **ENTER**, the following message screen will appear.



- 6 Press **◀** or **▶** to select "Yes" and press **ENTER**.
- 7 The combining chapters are completed.
 - To display the title menu, press **RETURN**.
 - To return to the normal screen, press **TITLE MENU**.

Editing the disc

Editing a playlist

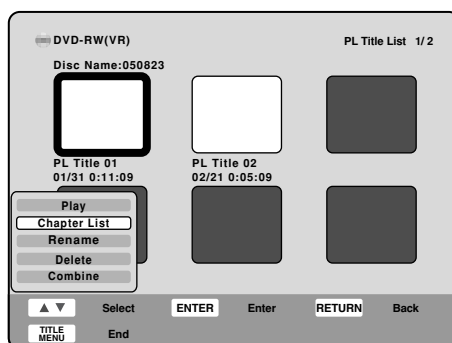


Erasing a chapter

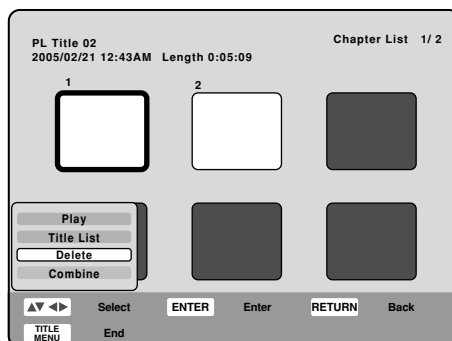


You can erase an unnecessary chapter from the created playlist. When you erase the chapter from the playlist, the scene is not erased from the original title.

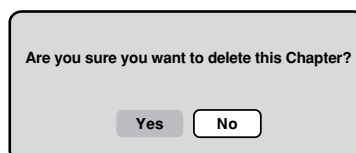
- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the playlist where a chapter you want to erase.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "Chapter List".



- 3 Press **ENTER**.
The Chapter List will appear.
- 4 Select the chapter that you want to erase.
 - Press **▲/▼/◀/▶** to select the chapter.
 - Press **ENTER** to display the editing menu of the Chapter List.
 - Press **▲** or **▼** to select "Delete".

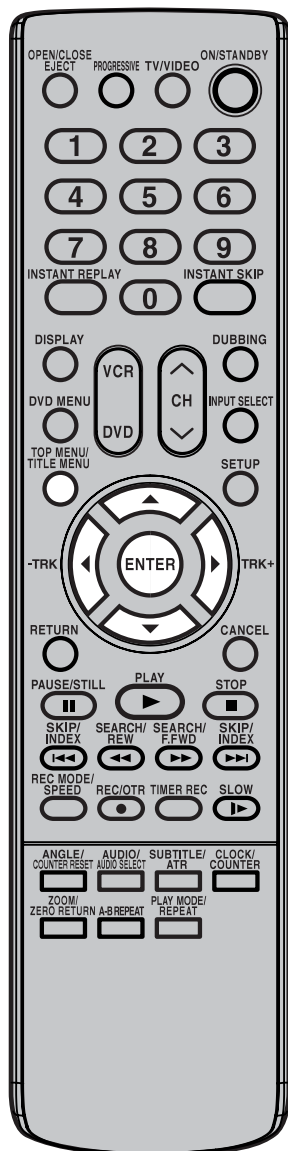


- 5 By pressing **ENTER**, the following message screen will appear.



- 6 Press **◀** or **▶** to select "Yes" and press **ENTER**.
The selected chapter will be erased.

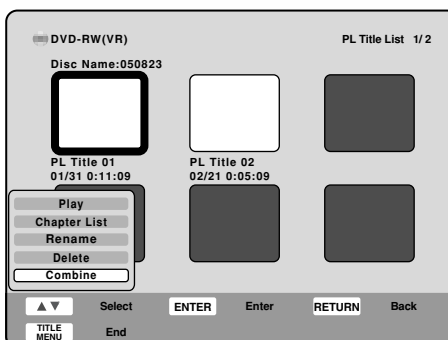
Editing a playlist



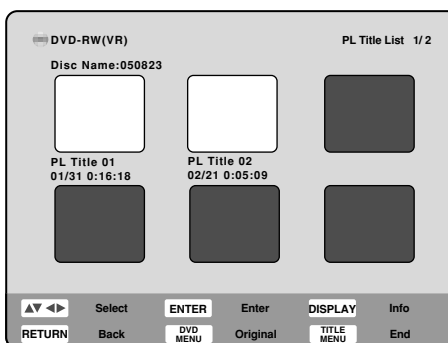
Combining the titles

You can create a playlist by combining the several original titles or playlists.

- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the playlist where you want to combine the titles.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "Combine".

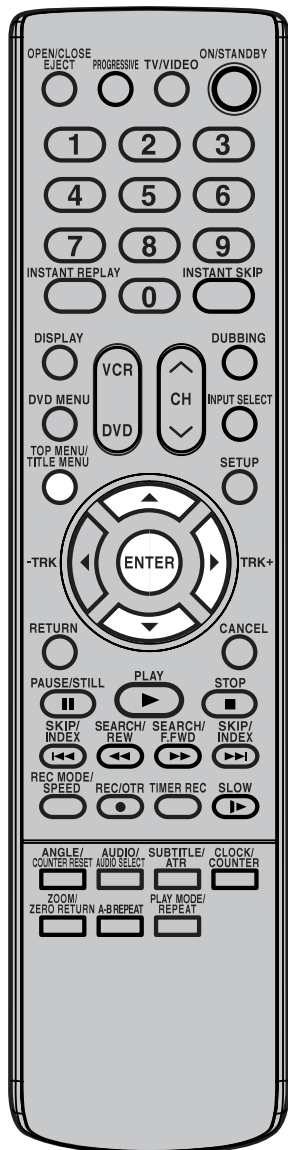


- 3 Press **ENTER**.
- 4 Select the title that you want to combine from the PL Title List, then press **ENTER**.
Following the playlist, the selected playlist is combined.
The several playlist were combined so that the total recording time is displayed.



Editing the disc

Editing a playlist

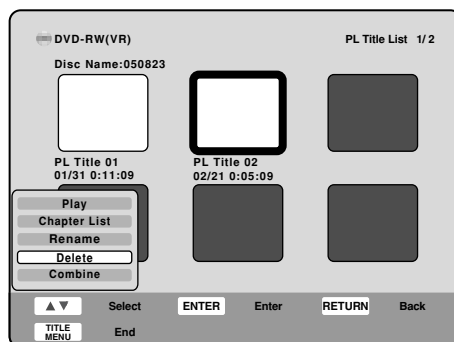


Erasing a playlist

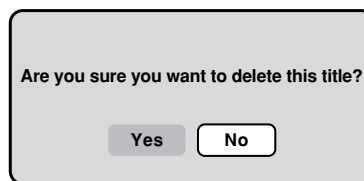


You can erase the created playlist. Even if you erase the playlist, the original title will not be erased.

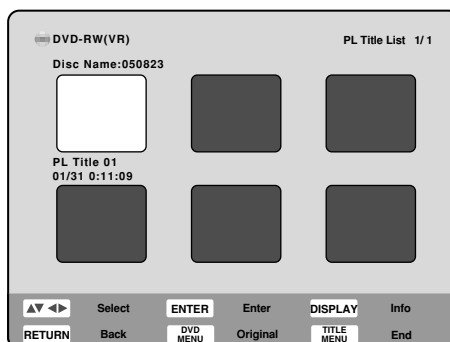
- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the playlist that you want to erase.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "Delete".



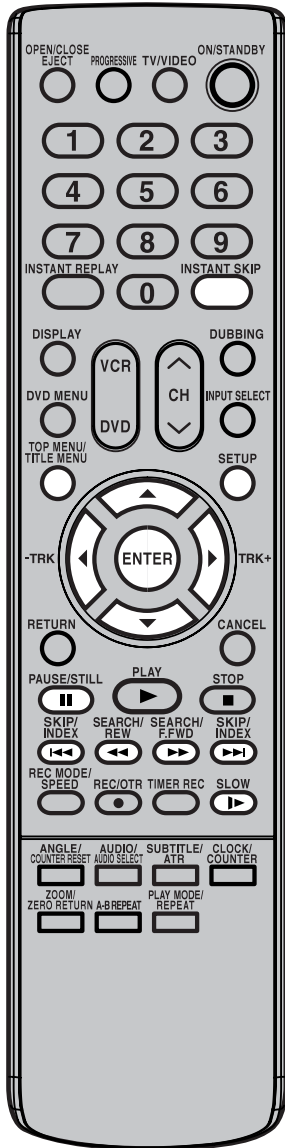
- 3 By pressing **ENTER**, the following message screen will appear.



- 4 Press **◀** or **▶** to select "Yes" and press **ENTER**. The selected playlist will be erased.



Editing a playlist

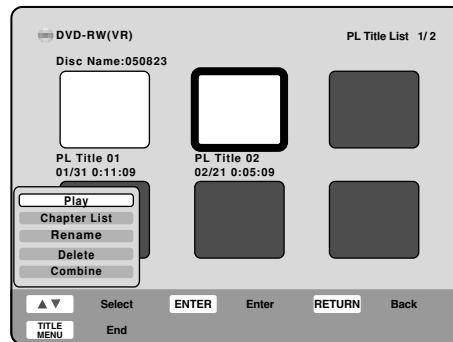


Set Index Picture

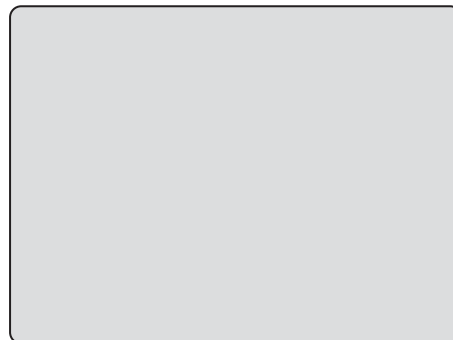


You can set the time that the thumbnail image is registered in the title menu of DVD-RAM/RW (VR mode).

- 1 Press **TITLE MENU** to display the PL Title List.
- 2 Select the original title where a index picture is registered.
 - Press **▲/▼/◀/▶** to select the playlist.
 - Press **ENTER** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "Play".



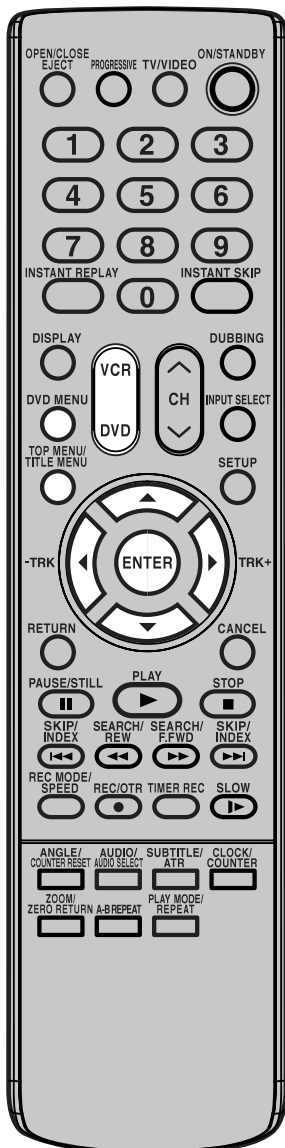
- 3 Press **ENTER** to search a scene where you want to set index picture. The selected title is played back.



Editing the disc

- 4 Press **SETUP** to display Easy Menu. Press **▲** or **▼** to select "Set Index Picture".
- 5 Search the scene by using each operation button (**F.FWD**, **REW**, **SKIP +**, **SKIP -**, **PAUSE/STILL**, **SLOW**, **INSTANT SKIP**) for the playback.
- 6 When the scene you want to set index picture, press **ENTER**. The position of the set index picture is appeared.
- 7 The index picture is finished setting.
 - To display the title menu, press **TITLE MENU**.
 - To return to the normal screen, press **RETURN**.

Editing an original title



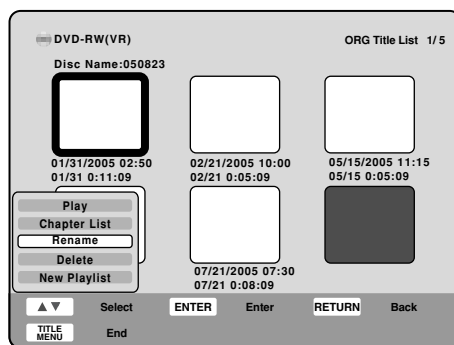
Preparation:

- Turn ON the TV and set to the video input mode.
- Load the recorded disc.
- Press **DVD** to select the DVD mode. (The DVD indicator will light.)

Changing an original title name



- 1 Press **TITLE MENU** to display the ORG Title List.
- 2 Select the original title that you want to rename.
 - Press **▲/▼/◀/▶** to select the original title.
 - Press **ENTER** to display the editing menu of original title.
 - Press **▲** or **▼** to select "Rename".



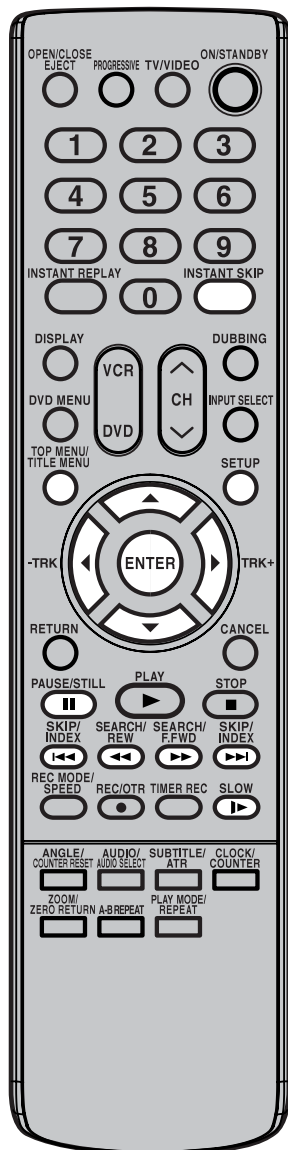
- 3 Press **ENTER**.
The keyboard screen will appear.
The entering method of the title name is the same as for the playlist. See the steps 4 and 5 of "Changing a title name" in "Editing a playlist" (page 62) and enter the title name.

NOTES:

- The title name can be a maximum of 64 characters.
Long names will be shortened in the title menu.
- Each press of **DVD MENU** will change the ORG Title List and the PL Title List.

Editing an original title

In VR mode, you can edit various items, whereas in Video mode, you can edit the title names only.

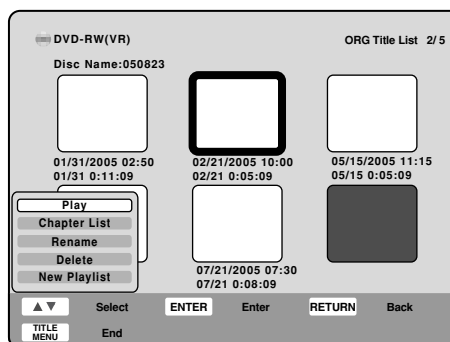


Adding a chapter mark

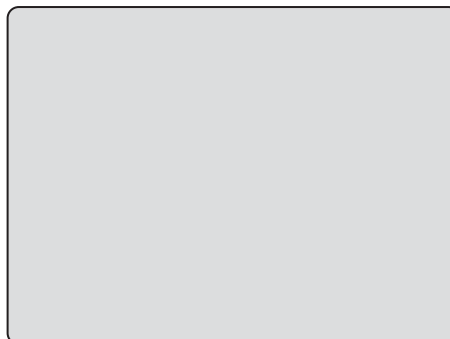


You can add a chapter mark to the original title. You can add up to 999 chapter marks to one disc.

- 1 Press **TITLE MENU** to display the ORG Title List.
- 2 Select the original title where a chapter mark is added.
 - Press **▲/▼/◀/▶** to select the original title.
 - Press **ENTER** to display the editing menu of the original title.
 - Press **▲** or **▼** to select "Play".



- 3 Press **ENTER** to search a scene where you want to add the chapter mark.
The selected title is played back.



- 4 Press **SETUP** to display Easy Menu.
 - Press **▲** or **▼** to select "Add Chapter Mark".
- 5 Search the scene by using each operation button (**F.FWD**, **REW**, **SKIP +**, **SKIP -**, **PAUSE/STILL**, **SLOW**, **INSTANT SKIP**) for the playback.

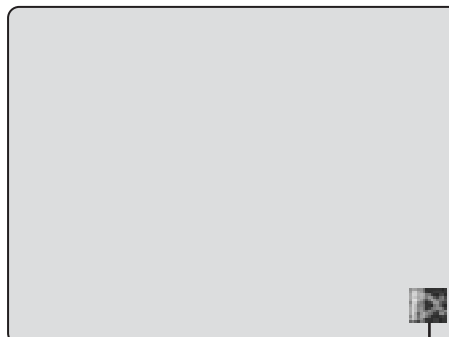
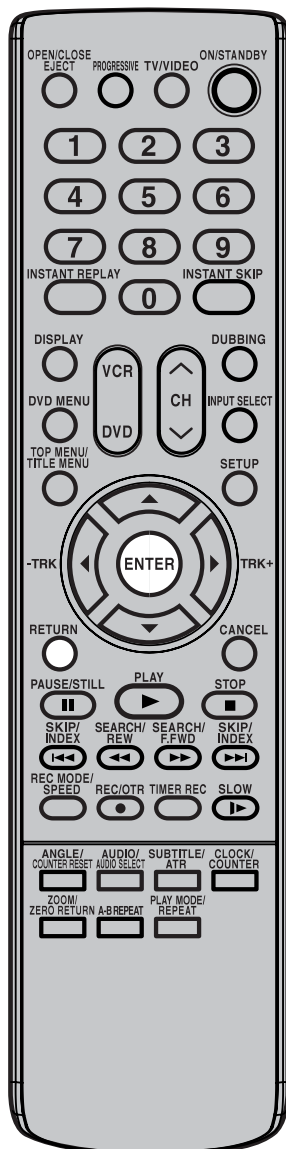
NOTE:

You can automatically add a chapter mark in recording. For more information, see page 29.

Editing the disc

Editing an original title

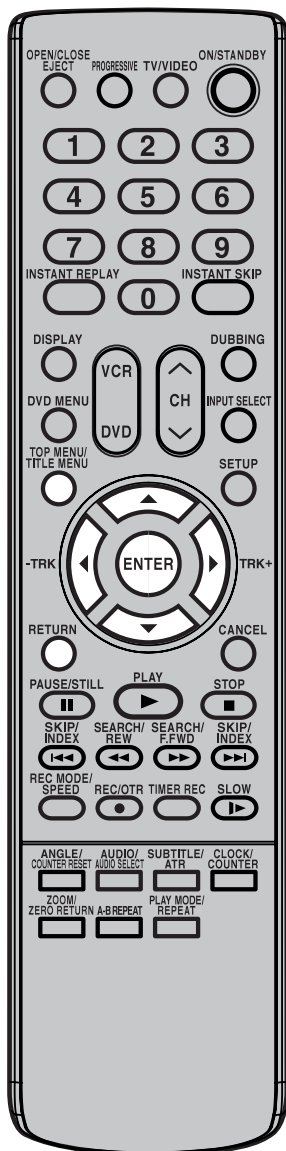
- 6 When the scene you want to add a chapter mark, press **ENTER**.
The position of the added chapter mark is appeared.



The added chapter mark

- 7 If you want to continue to add chapter mark, repeat step 6.
- 8 The chapter marks are finished adding.
• To return to the normal screen, press **RETURN**.

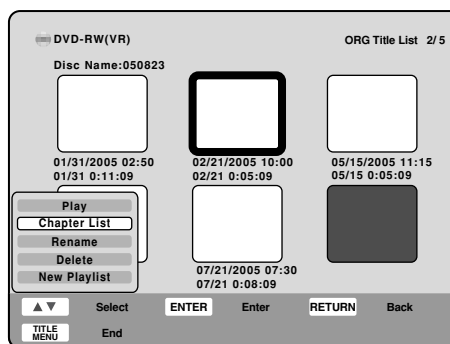
Editing an original title



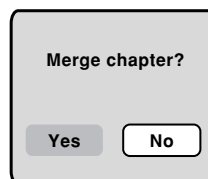
Combining chapters



- 1 Press **TITLE MENU** to display the ORG Title List.
- 2 Select the original titles where you want to combine the chapters.
 - Press **▲/▼/◀/▶** to select the original title.
 - Press **ENTER** to display the editing menu of original title.
 - Press **▲** or **▼** to select "Chapter List".



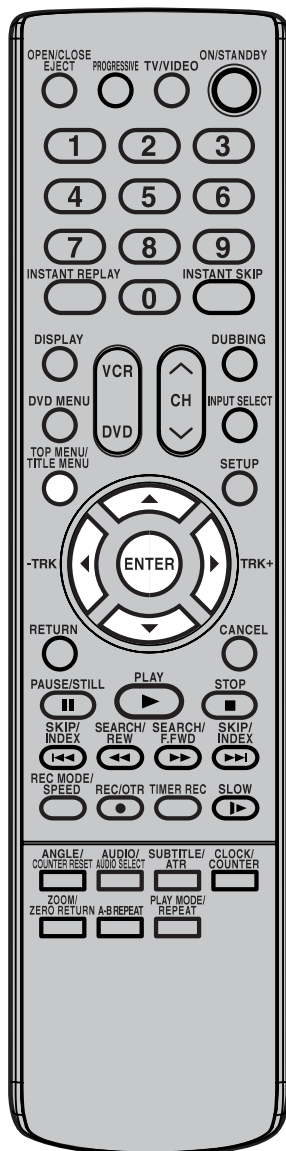
- 3 Press **ENTER**.
The Chapter List will appear.
- 4 Select the chapter that you want to combine.
 - Press **▲/▼/◀/▶** to select the chapter.
 - Press **ENTER** to display the editing menu of Chapter List.
 - Press **▲** or **▼** to select "Combine".
- 5 By pressing **ENTER**, the following message screen will appear.



- 6 Press **◀** or **▶** to select "Yes" and press **ENTER**.
- 7 The combining chapters are completed.
 - To display the title menu, press **RETURN**.
 - To return to the normal screen, press **TITLE MENU**.

Editing the disc

Editing an original title



NOTES:

- If the chapter is erased from the original title, the created playlist is erased.
- Disc space will only be freed up if scenes lasting several minutes are deleted.
- A chapter mark is automatically added at the location of the erased scene.

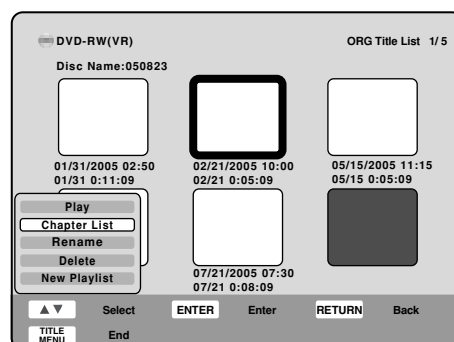
Erasing a chapter



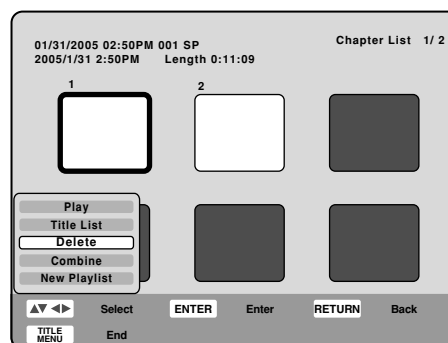
You can erase an unnecessary chapter from the original title. Erase the chapter after checking the title. You cannot restore the erased chapter.

When you erase the scene, you can increase the disc space.

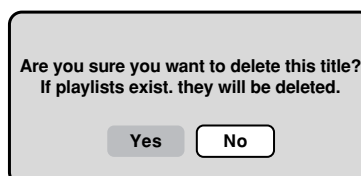
- 1 Press **TITLE MENU** to display the ORG Title List.
- 2 Select the original title where a chapter you want to erase.
 - Press **▲/▼/◀/▶** to select the original title.
 - Press **ENTER** to display the editing menu of original title.
 - Press **▲** or **▼** to select "Chapter List".



- 3 Press **ENTER**.
The Chapter List screen will appear.
 - Press **▲/▼/◀/▶** to select chapter.
 - Press **ENTER** to display the editing menu of Chapter List.
 - Press **▲** or **▼** to select "Delete".

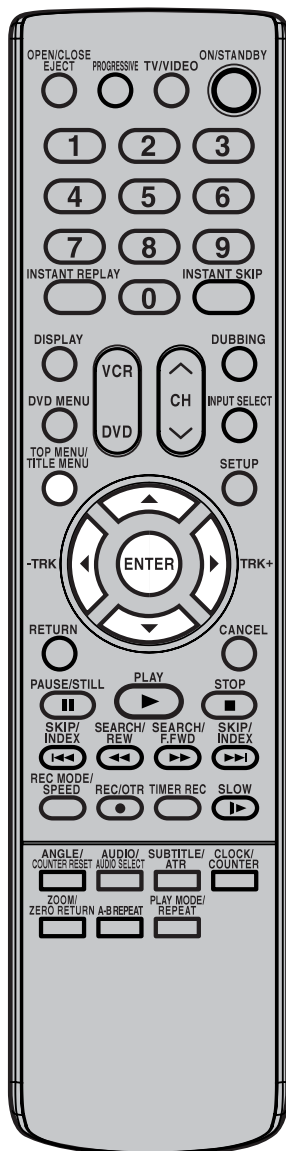


- 4 By pressing **ENTER**, the following message screen will appear.



- 5 Press **◀** or **▶** to select "YES" and press **ENTER**.
The selected chapter will be erased.

Editing an original title

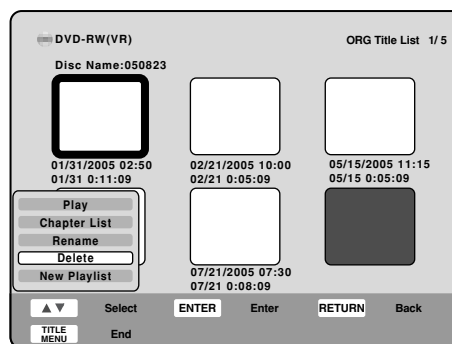


Erasing an original title

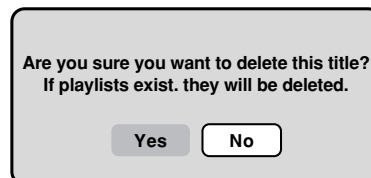


You can erase an original title. Erasing the title deletes both the title and the recording saved under that title name. Erase the original title after checking its title. The erased title cannot be restored. When you erase the title, you can increase the disc space.

- 1 Press **TITLE MENU** to display the ORG Title List.
- 2 Select the original title you want to erase.
 - Press **▲/▼/◀/▶** to select the original title.
 - Press **ENTER** to display the editing menu of original title.
 - Press **▲** or **▼** to select "Delete".



- 3 By pressing **ENTER**, the following message screen will appear.



- 4 Press **◀** or **▶** to select "YES" and press **ENTER**. The original title will be erased.

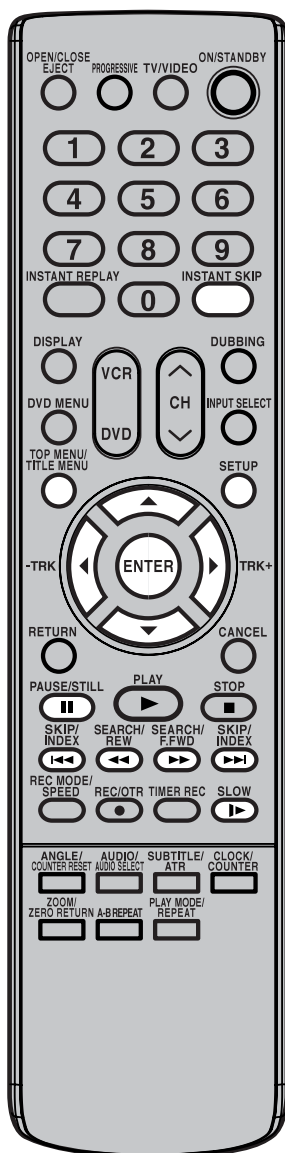
NOTE:

If the original title is erased, the created playlist is also erased.

Editing the disc

Editing an original title

In VR mode, you can edit various items, whereas in Video mode, you can edit the title names only.



Preparation:

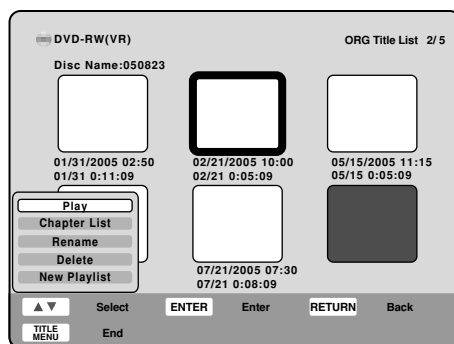
- Turn ON the TV and set to the video input mode.
- Load the recorded disc.
- Press **DVD** to select the DVD mode. (The DVD indicator will light.)

Set Index Picture

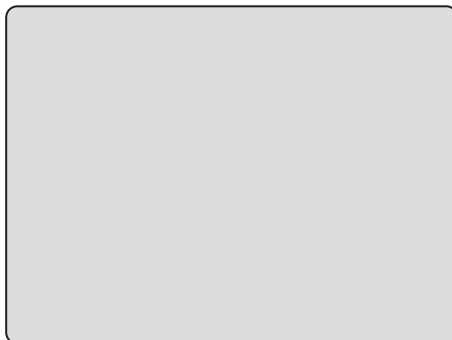


You can set the time that the thumbnail image is registered in the title menu of DVD-RAM/RW (VR mode).

- 1 Press **TITLE MENU** to display the ORG Title List.
- 2 Select the original title where a index picture is registered.
 - Press **▲/▼/◀/▶** to select the original title.
 - Press **ENTER** to display the editing menu of the original title.
 - Press **▲** or **▼** to select "Play".



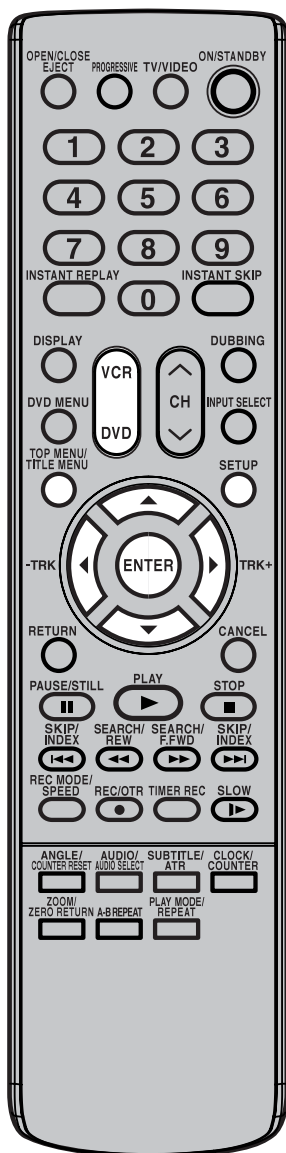
- 3 Press **ENTER** to search a scene where you want to set index picture. The selected title is played back.



- 4 Press **SETUP** to display Easy Menu. Press **▲** or **▼** to select "Set Index Picture".
- 5 Search the scene by using each operation button (**F.FWD**, **REW**, **SKIP +**, **SKIP -**, **PAUSE/STILL**, **SLOW**, **INSTANT SKIP**) for the playback.
- 6 When the scene you want to set index picture, press **ENTER**. The position of the set index picture is appeared.
- 7 The index picture is finished setting.
 - To display the title menu, press **TITLE MENU**.
 - To return to the normal screen, press **RETURN**.

Changing a disc name

You can change a disc name from the Setup Menu.



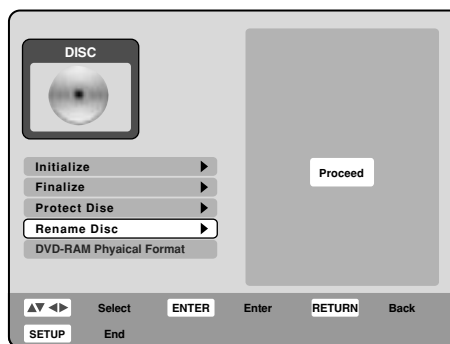
Preparation:

- Turn ON the TV and set to the video input mode.
- Load the recorded DVD disc.
- Press **DVD** to select the DVD mode. (The DVD indicator will light.)

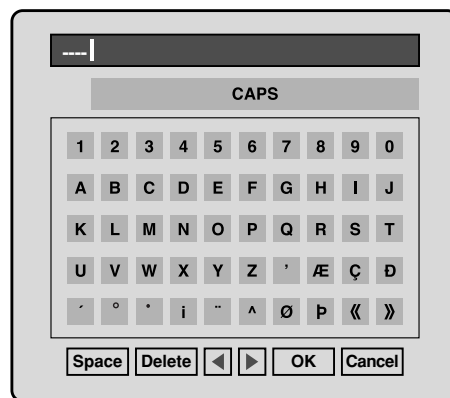
Changing a disc name



- 1 Press **SETUP** to display the Easy Menu.
- 2 • Press **▼** to select "Setup Menu".
• Press **ENTER** to display the setup menu.
• Press **▲/▼/◀/▶** to select "DISC".
• Press **▲** or **▼** to select "Rename Disc" and press **ENTER**.



- 3 Press **ENTER**.
The keyboard screen will appear.
- 4 Use the keyboard screen to enter the disc name.



NOTES:

- The disc name can be a maximum of 32 characters. Long names will be shortened in the title menu.
- For using the keyboard screen, see "Using the keyboard screen" (page 78).
- A DVD-R disc cannot be named after it is finalized.

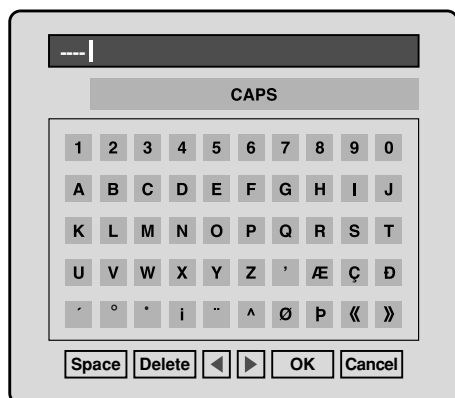
- 5 Select "OK", then press **ENTER** to return the title menu. It returns to the DISC menu.

Editing the disc

Changing a disc name

Using the keyboard screen

This section explains the function of the keyboard screen and how to input characters. The disc name and the title name can be changed using the keyboard screen.



Inputting characters

- 1 Press ▲/▼/◀/▶ to select the character to be input.
- 2 Press **ENTER**.
The selected character will be input.

Erasing a character

You can erase the input character.

- 1 Press ▲/▼/◀/▶ to select "Delete".
- 2 Press **ENTER**.
The last input character will be erased.
- 3 To erase the characters continuously, press **ENTER**.
The input characters will be erased from the last to the first one.

Selecting between uppercase and lowercase letters

You can select either uppercase or lowercase letters when modifying your titles, using the keyboard screen.

- 1 Press ▲/▼/◀/▶ to select "CAPS".
- 2 Press ◀ or ▶ to select the type of letters in the list below.

Numbers/Signs: This is used for inputting numbers/signs.

CAPS: Inputs all with uppercase letters.

small: Inputs all with lowercase letters.

Determining a name

To determine the entered disc name and title name, press ▲/▼/◀/▶ to select "OK", then press **ENTER**.

The keyboard screen disappears and the display will return to the Disc menu.

Cancelling character input

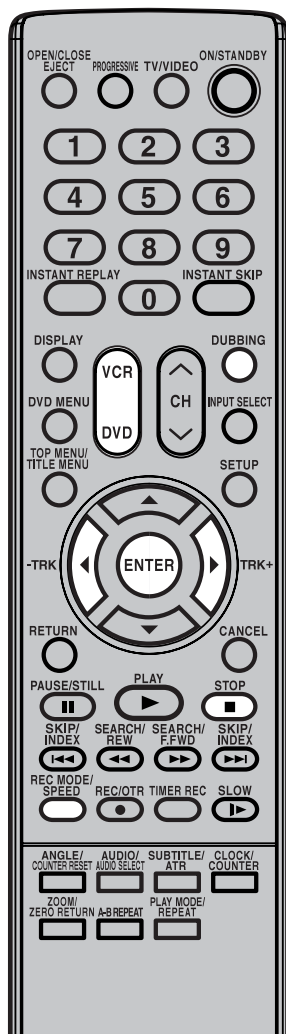
When you want to cancel the input and changed characters, press ▲/▼/◀/▶ to select "Cancel", then press **ENTER**.

The input and changed characters are cancelled and the Disc menu will appear.

Dubbing a tape onto a disc



You can record video or audio on a video tape onto a disc.

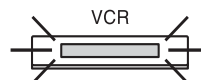


Preparation:

- Turn ON the TV and set to the video input mode.
- Load a source video tape and a disc for recording.
- Remove the erase protection tab of the source video tape to prevent the data from accidentally being erased.
- Confirm the disc space before operation.

- 1 Press **DVD** to set this unit to DVD mode.
The DVD indicator will light.
- 2 Press **REC MODE/SPEED** and select the recording mode.
 - When **REC MODE/SPEED** is pressed each time, “SP”, “LP”, “SLP” or “XP” is selected in this order.
 - The recording mode is indicated on both the TV screen and the display window.
 - For the details of the recording mode, see page 50.

- 3 Press **VCR** and set the unit to VCR mode.



NOTE:

Confirm that the VCR indicator lights.

- 4 Press **DUBBING**.
 - The unit is changed to DVD mode automatically.
 - The VCR is waiting for playback and the DVD is waiting for recording. Then the following message will appear.
- 5 Press **DUBBING**, or press ◀ or ▶ to select “Yes” and press **ENTER**.
Dubbing starts.
 - To cancel dubbing, press **STOP**, or select “No” and press **ENTER**.

Confirm dubbing from VCR to DVD.

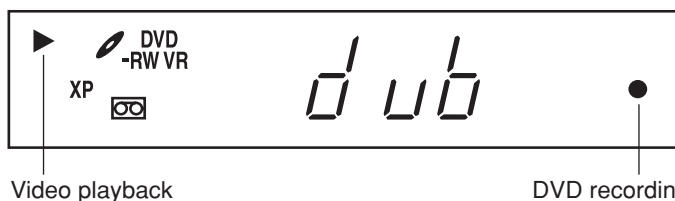
Yes

No

NOTES:

- Dubbing cannot be accomplished when
 - a copy protected tape is used.
 - disc protection is set.
 - disc has no recording space.
- Dubbing stops when
 - the video tape is played back to the end and stops.
 - recording space becomes full.
- The videos recorded from TV programs or movies can be used only for your personal enjoyment without permission of the copyright holder.

In dubbing, during VCR playback, DVD recording and “dub” (dubbing) indicator appear on the display window.



Video playback

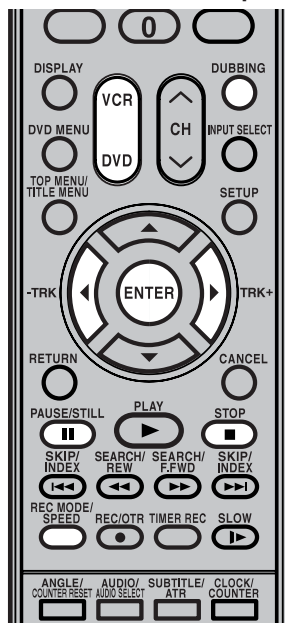
DVD recording

- 6 Press **STOP** to stop dubbing.

Dubbing a disc onto a tape



You can record both video and audio from a disc to a video tape. When a disc with a copy guard is used, a distorted image is recorded onto the video tape.



NOTES:

- Dubbing cannot be accomplished when
 - a copy protected disc is used.
 - the erase prevention tab of video tape is removed.
- Dubbing stops when
 - the disc is played back to the end and stops.
 - recording space becomes full.
- During dubbing, the unit is changed to interlaced scan mode automatically if it has been previously set to progressive scan mode.
- If no special permission is obtained from the copyright owner, videos recorded from TV programs or movies can only be used for your own personal enjoyment.

Preparation:

- Turn ON the TV and set to the video input mode.
- Load a source disc and a video tape for recording.
- Confirm the remaining tape for recording before operation.

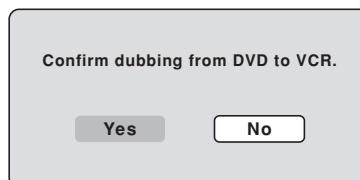
- Press **VCR** to set this unit to VCR mode. The VCR indicator will light.
- Press **REC MODE/SPEED** and select the recording mode.
 - When **REC MODE/SPEED** is pressed each time, "SP" or "SLP" is selected.
 - The recording mode is indicated on both the TV screen and the display window.
 - For the details of the recording mode, see page 46.
- Press **DVD** and set the unit to DVD mode.



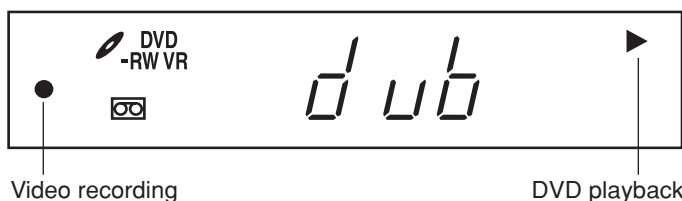
NOTE:

Confirm that the DVD indicator lights.

- Press **DUBBING**.
 - The DVD is waiting for playback and the VCR is waiting for recording. Then the following message appears.
- Press **DUBBING**, or press ◀ or ▶ to select "Yes" and press **ENTER**. Dubbing starts.
 - To cancel dubbing, press **STOP**, or select "No" and press **ENTER**.



In dubbing, during DVD playback, VCR recording and "dub" (dubbing) indicator appear on the display window.



- Press **STOP** to stop dubbing.

Dubbing only the specified titles or the playlist

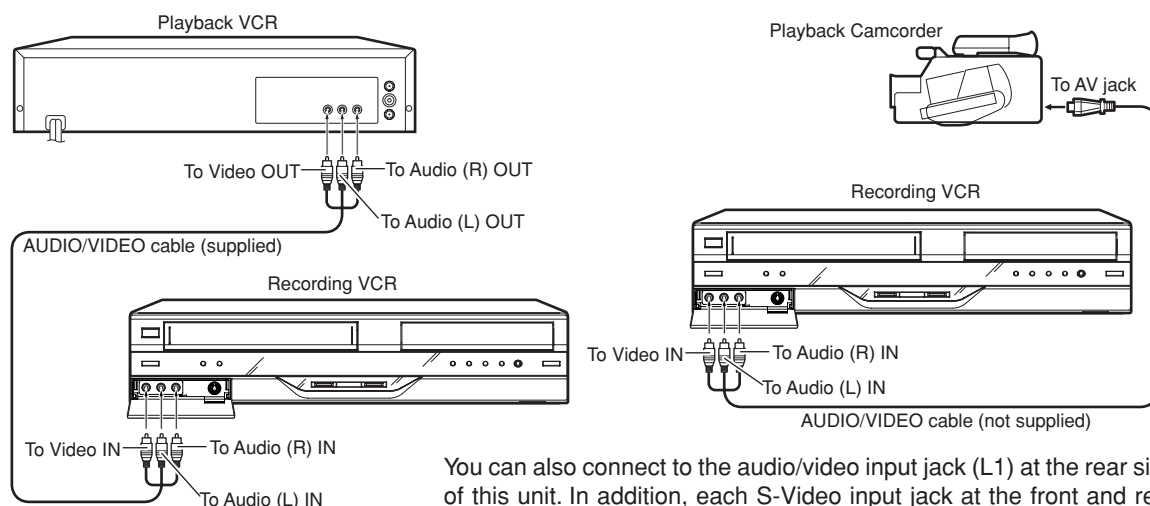
When you want to dub only specific titles or playlists recorded on the disc, start the playback of the desired title or playlist, and then immediately press **DUBBING**, **STOP** or **PAUSE/STILL**. If you press **DUBBING**, proceed from step 5 above. If you press **STOP** or **PAUSE/STILL**, proceed from step 4 above. The first few seconds of the title or playlist may not be recorded. When playback of the desired title or playlist is completed, press **STOP** to stop dubbing. If you don't press **STOP**, dubbing will continue.

Dubbing using other equipment



You can connect another VCR or camcorder for dubbing.

Typical connection: When using this unit as a recording device



You can also connect to the audio/video input jack (L1) at the rear side of this unit. In addition, each S-Video input jack at the front and rear sides can also be used. When you use S-Video input jack, set the Line1 Input/Line2 Input setting to "S-Video" (see page 27).

NOTES:

- If using a monaural VCR or other equipment, connect Audio (L) IN jack to Audio OUT using only one audio cable.
- When this unit is used as a playback device, a mark or a character displayed on the screen is also dubbed as an image. When the screen display is set to OFF, see "DISPLAY" on page 28.
- If no special permission is obtained from the copyright owner, videos recorded from TV programs or movies can only be used for your own personal enjoyment.
- You may not dub a copy protected video or DVD disc.
- The audio mode for the audio input jack can be selected, choosing either stereo or monaural. Select "External Audio Input" from Easy Menu and select from the below.

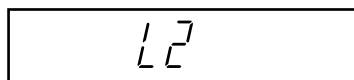
Stereo: The sound is treated as stereo sound.
L CH: The sound is treated as the monaural sound of the left channel.
R CH: The sound is treated as the monaural sound of the right channel.

When a video is recorded using this unit

Preparation:

- Turn ON the TV and set the unit to the video input mode.
- Load a video tape where the erase-protection tab is not activated or a disc with enough recording space.
- To record onto a video tape, set the unit to VCR mode, whereas to record onto a disc, set it to DVD mode.

- 1 Press **INPUT SELECT** and set the channel to L2 (or L1).
 L1 (LINE 1): on the rear panel
 L2 (LINE 2): on the front panel
 Confirm that L2 (or L1) appears on the display window.



- 2 Press **REC MODE/SPEED** and select the recording mode.
 VCR: SP or SLP (See page 46)
 DVD: SP, LP, SLP or XP (See page 50)
- 3 Press **REC/OTR** on this unit, then press **PAUSE/STILL**.
- 4 Press the **PLAY** button on the playback device, then press the **PAUSE/STILL** button.
- 5 Release the recording pause and the playback still simultaneously to begin the duplicating process.
- 6 Press **STOP** to stop dubbing.

Dubbing

Glossary

A-B Repeat Playback

Playback that repeats between two set points, A and B.

angle

Recorded onto some DVD discs are scenes which have been simultaneously shot from a number of different angles (the same scene is shot from the front, from the left side, from the right side, etc.). With such discs, you can select the angle from which to view the scene.

auto chapter

Feature that automatically makes chapter marks on a DVD disc during recording.

auto clock

Feature that automatically sets the internal clock.

blue background

Feature that automatically changes unpleasant noise images to a blue screen when a channel without a broadcast or a channel on which the broadcast has ended has been selected.

BROWSER screen

Screen that appears when MP3, WMA or JPEG CD is inserted.

CABLE

Cable television.

chapter

A section within a title is called a "chapter".

Chase playback

Feature that playback from the beginning of a program currently being recorded.

copy guard

Copyright protection signal. Software and broadcasts that contain this signal cannot be recorded.

Dolby Digital

Dolby® Digital Recording enables consumers to record high-quality video with stereo sound on recordable DVD discs. The technology, when utilized instead of PCM recording, also saves recordable disc space, allowing for higher video resolution or extended recording time on each DVD. DVDs created using Dolby Digital Recording will play back on all DVD-Video players.
Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

DTS

This is a digital sound system developed by Digital Theater Systems for use in cinemas. This system uses 6 audio channels and provides accurate sound field positioning and realistic acoustics. (By connecting a DTS Digital Surround decoder, you can also listen to DTS Digital Surround sound.)

DVD menu

Menu recorded on a DVD-Video that enables the user to select subtitles language, audio, etc.

finalize

Operation that enables discs recorded or edited with this unit to be played back on other DVD players.

Instant replay

If INSTANT REPLAY is pressed during disc playback, playback returns to a point 10 seconds earlier and resumes.

Instant skip

When pressed during playback, playback forwards 30 seconds ahead and resumes.

interlaced scanning

Technology that alternately displays odd-numbered scanning lines and even-numbered scanning lines. Also called "480i", "i" means "interlace".

letter box

Feature that displays black bands above and below playback images during playback of a disc recorded in wide (16:9) format on a 4:3 TV connected to this unit.

MP3

One type of audio compression that uses MPEG1. This format compresses the sound to use up about 1/10 of the original file space, with minimal loss of sound quality.

original title

The file created by recording something is called an "original title".

OTR

One-touch Timer Recording. Start a timed recording by pressing just one button (up to 6 hours).

pan scan

Feature that cuts the left and right edges of playback images to a 4:3 size during playback of a disc recorded in wide (16:9) format on a 4:3 TV connected to this unit.

parental control

Some discs control viewing according to the age of the viewer. A control level can be set for those types of discs.



Glossary

parental control settings

- Level 1: Adult discs and general discs (R-rated discs included) cannot be played back.
- Level 2 to 3: Adult discs and R-rated discs cannot be played back.
- Level 4 to 7: Adult discs cannot be played back. (Level 4 to 7 discs contain content children age 15 and younger may not see.)
- Level 8: Virtually all discs can be played back without restriction.

PBS

Acronym for Public Broadcast System. The PBS channel transmits data for auto clock setting.

playlist

User-created titles based on each original title.

Progressive scan

Technology that simultaneously displays odd-numbered scanning lines and even-numbered scanning lines from top to bottom. Also called "480p", "p" means "progressive".

region number

There is software that enables DVD playback in differing countries. The number of that kind of disc is called the "region number".

SETUP MENU

Menu that contains settings for various features of this unit, such as recording and playback. Timer recording is also set from the SETUP MENU.

slide show

Technique for flipping through and viewing many images (JPEG files).

subtitle language

Language used for subtitles of movies, etc. Viewers can watch in a language of their choice.

title

A program recorded on a disc is called a "title".

title menu

Menu that lists titles and tracks recorded on the disc. It is used for playback and disc editing.

top menu

Menu on a DVD-Video for selecting chapters for playback, subtitle language, etc. Some DVD-Video call this top menu "Title".

track

A song on an Audio CD is called a "track".

TRACK INFO screen

Screen that appears when an Audio CD is inserted.

Video mode

This recording format is compatible with commercially available DVD players.

virtual surround

Technology that converts audio that is not recorded in surround sound into audio that assimilates surround sound.

VR mode

This recording format is the basic DVD-RW recording format, and lets you enjoy the various editing functions available with this unit.

Language code list

Enter the appropriate code number for the initial settings “DVD Menu”, “Audio” and/or “Subtitle” (see page 28).

Language Name	Code	Language Name	Code	Language Name	Code	Language Name	Code
Abkhazian	1112	Fiji	1620	Lingala	2224	Singhalese	2919
Afar	1111	Finnish	1619	Lithuanian	2230	Slovak	2921
Afrikaans	1116	French	1628	Macedonian	2321	Slovenian	2922
Albanian	2927	Frisian	1635	Malagasy	2317	Somali	2925
Amharic	1123	Galician	1722	Malay	2329	Spanish	1529
Arabic	1128	Georgian	2111	Malayalam	2322	Sundanese	2931
Armenian	1835	German	1415	Maltese	2330	Swahili	2933
Assamese	1129	Greek	1522	Maori	2319	Swedish	2932
Aymara	1135	Greenlandic	2122	Marathi	2328	Tagalog	3022
Azerbaijani	1136	Guarani	1724	Moldavian	2325	Tajik	3017
Bashkir	1211	Gujarati	1731	Mongolian	2324	Tamil	3011
Basque	1531	Hausa	1811	Nauru	2411	Tatar	3030
Bengali; Bangla	1224	Hebrew	1933	Nepali	2415	Telugu	3015
Bhutani	1436	Hindi	1819	Norwegian	2425	Thai	3018
Bihari	1218	Hungarian	1831	Oriya	2528	Tibetan	1225
Breton	1228	Icelandic	1929	Panjabi	2611	Tigrinya	3019
Bulgarian	1217	Indonesian	1924	Pashto, Pushto	2629	Tonga	3025
Burmese	2335	Interlingua	1911	Persian	1611	Turkish	3028
Byelorussian	1215	Irish	1711	Polish	2622	Turkmen	3021
Cambodian	2123	Italian	1930	Portuguese	2630	Twi	3033
Catalan	1311	Japanese	2011	Quechua	2731	Ukrainian	3121
Chinese	3618	Javanese	2033	Rhaeto-Romance	2823	Urdu	3128
Corsican	1325	Kannada	2124	Romanian	2825	Uzbek	3136
Croatian	1828	Kashmiri	2129	Russian	2831	Vietnamese	3219
Czech	1329	Kazakh	2121	Samoan	2923	Volapük	3225
Danish	1411	Kirghiz	2135	Sanskrit	2911	Welsh	1335
Dutch	2422	Korean	2125	Scots Gaelic	1714	Wolof	3325
English	1524	Kurdish	2131	Serbian	2928	Xhosa	3418
Esperanto	1525	Laothian	2225	Serbo-Croatian	2918	Yiddish	2019
Estonian	1530	Latin	2211	Shona	2924	Yoruba	3525
Faroese	1625	Latvian, Lettish	2232	Sindhi	2914	Zulu	3631

Problems and troubleshooting

Use the following checklist for troubleshooting when you have problems with your unit. Consult your local dealer or service outlet if problems persist.

Be sure all connections are properly made when using with other units.

SYMPTOMS	POSSIBLE SOLUTIONS	PAGE
DVD/VCR		
DVD/VCR does not operate.	• Make sure the power cord is plugged in. • Try another AC outlet. • Power is off, check fuse or circuit breaker. • Unplug unit, then plug it back in. • Select the DVD or VCR mode before operating.	15 – – 15 31, 47
No picture.	• Antenna connection is not correct or antenna cable is disconnected. • The video channel is not in the correct position or the TV is not set to the video channel 3 or 4. • Check the unit is connected correctly. • The video input selector of the TV is not set to VIDEO. Set to VIDEO (or equivalent). • Channel is set to the external mode.	16~19 22 16~21 – –
No sound.	• Check the unit is connected correctly. • Check the input selector of the amplifier is set properly. • The unit is in the special playback mode.	16~21 – 34
The remote control does not function.	• Aim at the remote control at the remote sensor. • Operate within approx. 7 meters or reduce the light in the room. • Clear the path of the beam. • The batteries are weak. Replace the batteries. • Check the batteries are inserted correctly.	15
No cable TV reception.	• Check all Cable TV connections. • Station or Cable TV system problems, try another station.	18, 19
DVD		
Display is not shown in your language.	• Select proper language in the SETUP MENU.	28
Playback doesn't start.	• No disc is inserted. • The disc may be dirty. Clean up the disc. • The unit cannot play DVD-ROMs, etc.	31 9 9
Cancel playback, search, slow-motion play, repeat play, or program play, etc. cannot be performed.	• Some discs may not do some of the functions.	–
Recording does not work.	• Check the disc space, using the disc information. • Check the disc for protection. • Check if the video to be recorded is not "copy-guarded". • Check that the number of recorded titles is 99 or less, using the disc information. • Check the number of the total chapters for the recorded titles is 999, using the disc information. • In a DVD-RW of Ver.1.0, recording in Video mode does not work. Check the disc type.	33 30 51 33, 50 33, 50 10
A recorded disc using this recorder cannot be played back in other players.	• Check that the disc is finalized. • Some DVD players will not play even if the disc has been finalized. • If the disc was recorded in VR mode, the other player must be RW compatible in order to play the disc.	30 11, 30 11, 30

Additional information

Problems and troubleshooting / Video head cleaning

SYMPTOMS	POSSIBLE SOLUTIONS	PAGE
VCR		
TV recording does not work.	- The erase prevention tab of the video cassette is broken off. - The unit is in the external input mode.	46, 52
Timer recording does not work.	- The time is not set correctly. - The recording start/end time is not set correctly. - TIMER REC has not been pressed (□ is not lit).	25 56 57
Noise bars on screen.	- Tracking adjustment beyond range of automatic tracking circuit. Try manual tracking adjustment. - Video heads are dirty. - The tape is worn or damaged.	48 below —
OTHER		
No picture, or screen is blurred or divided into two parts.	The progressive scan mode is active though the unit is connected to a TV via the VIDEO OUT jack.	45
No 4:3 (16:9) picture.	The setup does not match your TV.	26
No on-screen display.	Select DISPLAY to "ON".	26
No surround sound.	The setup does not match your stereo system.	21
The unit or remote operation key is not functioning.	Turn off the unit and unplug the AC power cord for several minutes, then replug it.	—
Playback does not start when the title is selected.	Check the Parental setup.	24
Audio soundtrack and/or subtitle language is not changed when you playback a DVD.	Multilingual language is not recorded on the DVD disc.	28
No subtitles.	- Some discs have no subtitles. - Subtitles are cleared. Press SUBTITLE.	28, 39
Angle cannot be changed.	Multi-angles are not recorded on the DVD disc.	—
"Ⓢ" appears on the screen.	The function is prohibited with the unit or the disc.	—

Video head cleaning

Video head clogging

The video heads are meant by which the DVD/VCR reads the picture from the tape during playback. In the unlikely event that the heads become dirty enough to be clogged, no picture will be played back. This can easily be determined if, during playback of a known good tape, there is good sound, but no picture (picture is extremely snowy). If this is the case, DVD/VCR must be checked by qualified service personnel.

- NOTES:**
- DO NOT ATTEMPT TO CLEAN THE VIDEO HEADS OR SERVICE THE UNIT BY REMOVING THE REAR COVER.
 - Video heads may eventually wear out and should be replaced when they fail to produce clear pictures.
 - To help prevent video head clogging, use only good quality VHS tapes. Discard worn out tapes.

Error/Warning message list

	ERROR/WARNING MESSAGE	CAUSE	POSSIBLE SOLUTIONS
General	System error. Please wait.	The power was shut down without completing the termination process due to a power failure or disconnection of the AC cord plug. (Abnormal termination)	Wait until the message disappears.
	System error. Disc might be failed. Press ENTER.	The data restoration was completed.	Press ENTER , then the screen returns to the normal display. The data may not be restored even if the restoration process is performed.
	Disc error.	A scratch or contamination was found on the disc.	Check the disc and reload it, or use another disc for recording.
	Incorrect disc.	The disc cannot be identified.	Check the disc and load a proper disc.
Playback	Cannot playback.	A scratch or contamination was found on the disc.	Check the disc and reload it, or use another disc for recording.
	Region code error.	A disc specified other than "Region 1" or "Region ALL" was loaded.	A disc specified other than "Region 1" or "Region ALL" cannot be played back.
Recording	Cannot record.	Recording was tried onto the disc having no space.	Check the disc space.
		Recording was tried onto the disc which does not support recording.	Load a recordable disc.
		- Adding data was tried onto the disc recorded in the other unit. - Adding data was tried to the disc where PC data was recorded.	Load another disc for recording.
	Cannot record. Disc protected.	Disc erase-protection is applied.	Turn off the protect. disc from Setup Menu (DISC). Or turn the protect switch to off on the DVD-RAM cartridge itself.
	Cannot record. Disc finalized.	Recording was tried onto the finalized disc.	Undo finalization or load another disc for recording.
	Data is being written to the disc.	The recording termination is processing.	Wait until the process is completed.
	No space on the disc.	Disc became full during recording.	Erase unnecessary titles or load another disc and restart recording.
	Cannot record, exceeds limited number of titles.	99 titles were recorded on the disc.	Erase unnecessary titles or load another disc.
	Cannot record. Protected image.	Recording was attempted on a copy protected video.	You cannot record a copy protected video.
	The operation cannot be executed during timer recording standby and recording.	A invalid key pressed during timer recording standby and recording.	Wait until the timer recording is complete.
	Cancel T-REC standby after executing this operation.	Timer recording is standing by.	Cancel the timer recording standby mode.
Dubbing	Unable to shift during duplication process. Duplication aborted.	- A copy protected tape is used - Disc protection is set.	Load another video tape or disc for recording and restart..
	Copying interrupted.	The video tape or disc became full during dubbing.	Load another video tape or disc for recording and restart.

Additional information

NOTE: Any error/warning message other than those above might appear. Take measures against such a message by seeing the possible solutions above.



Additional information

Specifications

GENERAL

Power supply:	AC 120V 60Hz
Power consumption:	Operation: 29W Standby: 2.5W (if display window is off.)
Weight:	12.1 lbs (5.5 kg)
Dimensions:	Width : 16-15/16 inches (430 mm) Height : 3-1/2 inches (89.5 mm) Depth : 12-9/16 inches (318.5 mm)
Operating temperature:	41°F to 95°F (5°C to 35°C)
Operating humidity:	Less than 80% RH
Inputs/Outputs:	
Video:	In: 1Vp-p/75 ohm Out: 1Vp-p/75 ohm
Audio:	In: -8dBm/50k ohm Out: -8dBm/1k ohm
Antenna:	UHF/VHF IN/OUT: 75 ohm coaxial

VCR section

Video head:	4 Rotary Heads
Audio track:	Hi-Fi Sound - 2 Tracks / MONO Sound - 1 Track
Tuner:	181 Channel Freq. Synthesized VHF 2-13 UHF 14-69 Cable TV 14-36 (A)-(W) 37-59 (AA)-(WW) 60-85 (AAA)-(ZZZ) 86-94 (86)-(94) 95-99 (A-5)-(A-1) 100-125 (100)-(125) 01 (5A)
RF channel output:	Channel 3 or 4, Switchable
F.FWD/REW Time:	Approx. 1 minute and 48 seconds (with T-120 Cassette Tape)(at+25°C)
Hi-Fi frequency response:	20Hz to 20,000Hz
Hi-Fi dynamic range:	More than 90dB

DVD section

Signal system:	NTSC
Applicable disc:	DVD (12cm), CD (12cm)
Recording format:	DVD-Video Recording (VR mode) DVD-VIDEO (Video mode)
Recording discs:	DVD-RAM, DVD-RW, DVD-R
Recording time: (based on a 4.7GB disc)	XP: Approx. 60 min SP: Approx. 120 min LP: Approx. 240 min SLP: Approx. 360 min
Audio characteristics frequency response:	DVD: 4Hz - 22kHz CD: 4Hz - 20kHz 90dB
S/N Ratio:	90dB
Harmonic distortion:	Less than 1%
Wow and flutter:	Less than 0.01% Wrms
Dynamic range:	More than 90dB
Output:	Video : (RCA) 1 Vp-p/75 ohm Audio : (RCA) -12 dBm/1k ohm Digital Audio : 0.5Vp-p/75 ohm
Pickup:	CD : Wavelength: 780 nm Maximum output power: 8.5 mW DVD : Wavelength: 660 nm Maximum output power: 120 mW

ACCESSORIES:

Remote control (SE-R0180) x 1
75 ohm Coaxial Cable x 1
AUDIO/VIDEO Cable x 1
Battery AAA x 2

- This model complies with the above specifications.
- Designs and specifications are subject to change without notice.
- This model may not be compatible with features and/or specifications that may be added in the future.



Limited warranty

Limited United States Warranty Digital Audio Video ("DAV") Product - Depot Repair Warranty

Toshiba America Consumer Products, L.L.C. ("TACP") makes the following limited warranties to original consumers in the United States. THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS DAV PRODUCT AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

DAV PRODUCTS PURCHASED IN THE U.S.A. AND USED ANYWHERE OUTSIDE OF THE U.S.A., INCLUDING, WITHOUT LIMITATION, CANADA AND MEXICO, ARE NOT COVERED BY THESE WARRANTIES.

DAV PRODUCTS PURCHASED ANYWHERE OUTSIDE OF THE U.S.A., INCLUDING, WITHOUT LIMITATION, CANADA AND MEXICO, AND USED IN THE U.S.A., ARE NOT COVERED BY THESE WARRANTIES.

Limited Ninety (90) Day Warranty on Labor

TACP warrants this DAV Product and its parts against defects in materials or workmanship for a period of ninety (90) days after the date of original retail purchase. DURING THIS PERIOD, TACP WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR PARTS OR LABOR.

Limited One (1) Year Warranty on Parts

TACP further warrants the parts in this DAV Product against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. DURING THIS PERIOD, TACP WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR THE PART, PROVIDED THAT IF A DEFECTIVE PART IS REPAIRED OR REPLACED AFTER NINETY (90) DAYS AFTER THE DATE OF ORIGINAL RETAIL PURCHASE, THE CONSUMER SHALL PAY ALL LABOR CHARGES INVOLVED IN THE REPAIR OR REPLACEMENT THEREOF.

Rental Units

The warranty for DAV Product rental units begins on the date of the first rental or thirty (30) days after the date of shipment to the rental firm, whichever comes first.

Commercial Units

DAV Products sold and used for commercial purposes have a limited warranty for all parts and labor, which warranty begins on the date of original retail purchase and ends on the date that is ninety (90) days thereafter.

Owner's Manual and Product Registration Card

Read this owner's manual thoroughly before operating this DAV Product.

Complete and mail the enclosed product registration card or register your DAV Product on-line at www.tacp.toshiba.com/service as soon as possible. By registering your DAV Product you will enable TACP to bring you new products specifically designed to meet your needs and help us to contact you in the unlikely event a safety notification is required under the U.S. Consumer Product Safety Act. Failure to complete and return the product registration card does not diminish your warranty rights.

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must retain your bill of sale or provide other proof of purchase.
- (2) All warranty servicing of this DAV Product must be made by the Depot Warranty Repair Center specified by the TACP Consumer Solutions Center.
- (3) The warranties from TACP are effective only if the DAV Product is purchased and operated in the Continental U.S.A. or Puerto Rico.
- (4) Labor service charges for set installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems are your responsibility.
- (5) Warranties extend only to defects in materials or workmanship as limited above, and do not extend to any DAV Product or parts that have been lost or discarded by you or to damage to the DAV Product or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TACP; use or malfunction through simultaneous use of this DAV Product and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

Additional information



Limited warranty

How to Obtain Warranty Services

If, after following all of the operating instructions in this manual and checking the section "Troubleshooting," you find that service is needed:

- (1) For instructions on how to obtain warranty service for your DAV Product, contact TACP's Consumer Solution Center toll free at 1-800-631-3811.
- (2) You must include a copy or original bill of sale or other proof of purchase along with the entire DAV Product to the Depot Warranty Repair Center specified by the TACP Consumer Solutions Center. You are responsible for all inbound transportation and insurance charges for the DAV Product to the Depot Warranty Repair Center specified by the TACP Consumer Solutions Center.

For additional information, visit TACP's website:
www.tacp.toshiba.com

ALL WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U.S.A., INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THE LIMITED WARRANTIES SET FORTH ABOVE. WITH THE EXCEPTION OF ANY WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U.S.A. AS HEREBY LIMITED, THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AGREEMENTS, AND SIMILAR OBLIGATIONS OF TACP WITH RESPECT TO THE REPAIR OR REPLACEMENT OF ANY PARTS. IN NO EVENT SHALL TACP BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, BUSINESS INTERRUPTION, OR MODIFICATION OR ERASURE OF RECORDED DATA CAUSED BY USE, MISUSE OR INABILITY TO USE THIS DAV PRODUCT).

No person, agent, distributor, dealer, or company is authorized to change, modify, or extend the terms of these warranties in any manner whatsoever. The time within which an action must be commenced to enforce any obligation of TACP arising under the warranty or under any statute or law of the United States or any state thereof is hereby limited to ninety (90) days from the date you discover, or should have discovered, the defect. This limitation does not apply to implied warranties arising under state law.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE IN THE U.S.A. SOME STATES OF THE U.S.A. DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, WHEN AN ACTION MAY BE BROUGHT, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE PROVISIONS MAY NOT APPLY TO YOU UNDER SUCH CIRCUMSTANCES.





TOSHIBA

TOSHIBA AMERICA CONSUMER PRODUCTS, L.L.C.



J2H50101A SH 05/08

Printed in Thailand

