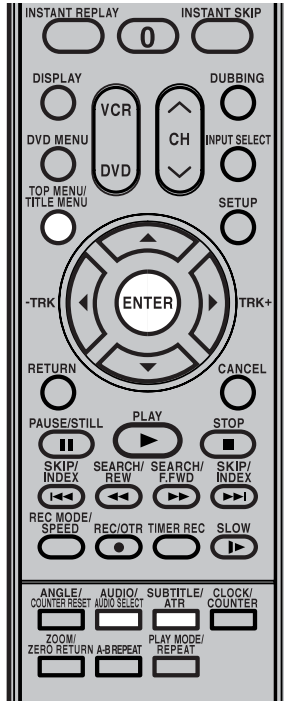


Changing soundtrack language / Subtitles / To turn off the PBC



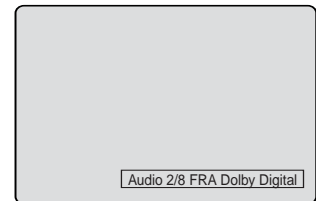
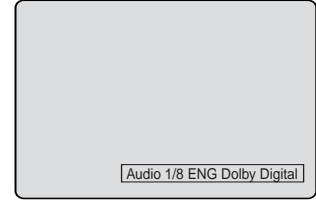
NOTES:

- If the desired language is not heard after pressing the button several times, the language is not recorded on the disc.
- Changing soundtrack or subtitles language is cancelled when you open the disc tray. The initial default language or available language will be heard and seen if the disc is played back again.
- Depending on the DVD you may be unable to turn on, turn off, or change the subtitles, even if they are recorded on the disc. While playing the DVD, the subtitles may change while opening or closing the disc tray, or while changing the title.
- In some cases, the subtitles language is not changed to the selected one immediately.

Changing soundtrack language

You can select the language when you play a multilingual disc.

- 1 Press **AUDIO** during playback. The current soundtrack language will appear.
- 2 Press **AUDIO** repeatedly until the desired language is selected. The on-screen display will disappear after a few seconds.

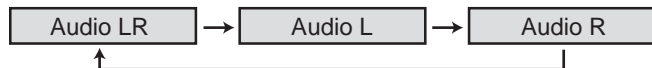


Disc playback

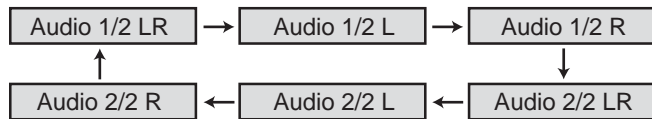
In case of VIDEO CD playback

Audio type will change as follows each time you press **AUDIO**.

VIDEO CD



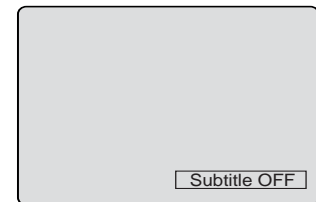
S-VCD



Turning the subtitles On and Off

When playing back a disc recorded with subtitles, you can turn the subtitles on or off.

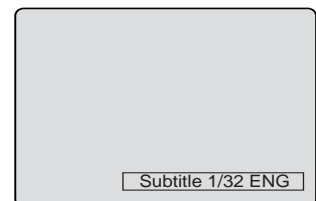
Press **SUBTITLE** during playback until "Subtitle OFF" appears.



Changing the subtitles language

You can select the language when playing back a disc recorded with multilingual subtitles.

Press **SUBTITLE** repeatedly during playback until your desired language appears. The on screen display will disappear after a few seconds.



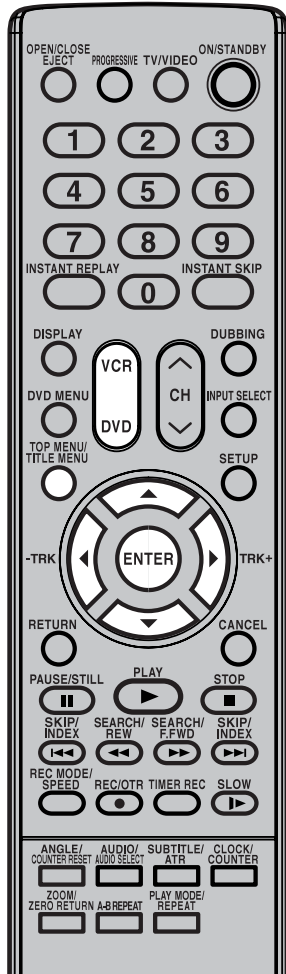
To turn off the PBC

Press **TITLE MENU** in the stop mode, then press **ENTER**.

Various operations on CD



This section describes the TRACK INFO screen where music CDs can be played back using the various operations.



NOTE:

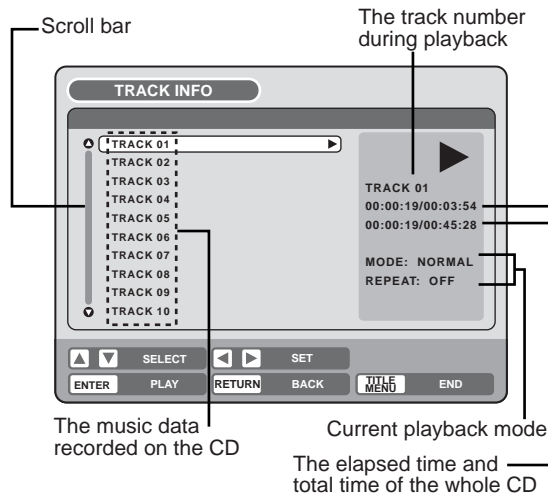
In case the disc includes more than 10 tracks, you can turn to the next or the previous page. Press ◀, then press ▼ or ▲ to display next/previous page. To return to normal use, press ▶.

Preparation:

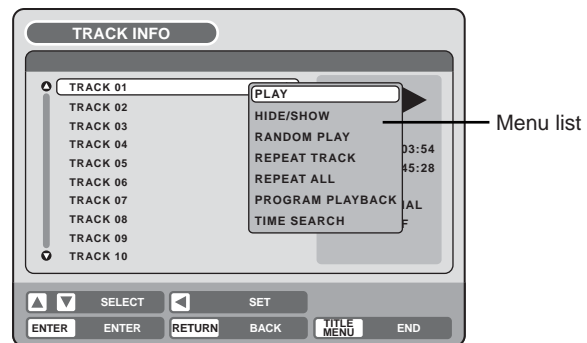
- Turn ON the TV and set to the video input mode.
- Load the music CD.
- Press DVD to select the DVD mode. (The DVD indicator will light.)

Press **TOP MENU/TITLE MENU**. The TRACK INFO screen will appear.

The elapsed time and total time of the music data (during playback)



Press ▶. The menu list will appear.



Playing back a selected track

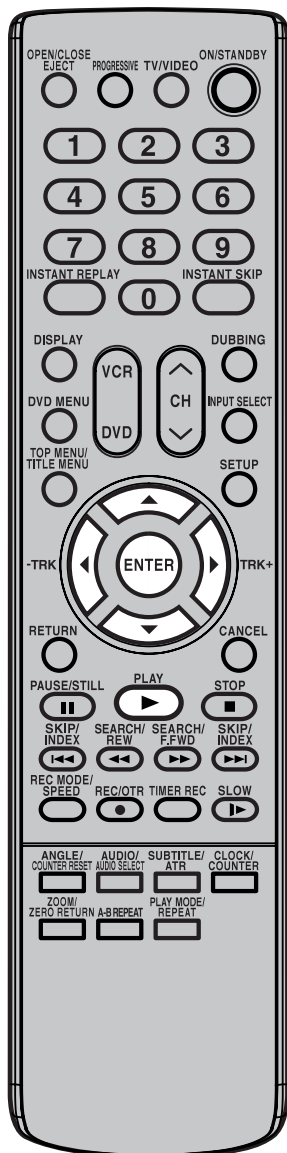
- 1 Press ▲ or ▼ to select the track number you want to playback and press ▶.
- 2 Press ▲ or ▼ to select "PLAY" from the menu list and press ENTER. The selected track will be played back.

Excluding specified track

- 1 During stop, press ▲ or ▼ to select the track number you do not want to playback and press ▶.
- 2 Press ▲ or ▼ to select "HIDE/SHOW" from the menu list and press ENTER. The selected track will not be played back. ("H" appears at the side of the track number.)

When you want to cancel the exclusion, press ▲ or ▼ to select the track number with "H" and press ▶. Press ▲ or ▼ to select "HIDE/SHOW" from the menu list and press ENTER, "HIDE" will be cancelled.

Various operations on CD



NOTE:

When recording on a CD-R/CD-RW in the MP3 or WMA modes, "RANDOM PLAY" and "TIME SEARCH" will not appear in the menu list.

Random playback

- 1 Press **▲** or **▼** to select "RANDOM PLAY" from the menu list and press **ENTER**.
The order of music tracks is randomly changed.
- 2 Press **PLAY**.
Music is played back in random order.

To cancel random playback, select "RANDOM PLAY" from the menu list again, and press **ENTER**.

Repeat playback of selected track

- 1 Press **▲** or **▼** to select the track number you want to repeat playback and press **▶**.
- 2 Press **▲** or **▼** to select "REPEAT TRACK" from the menu list and press **ENTER**.
- 3 Press **PLAY**.
The selected track will be played back repeatedly.

To cancel repeat track playback, select "REPEAT TRACK" from the menu list again, and press **ENTER**.

Repeat playback of all tracks

- 1 Press **▲** or **▼** to select "REPEAT ALL" from the menu list and press **ENTER**.
- 2 Press **PLAY**.
All tracks on CD will be played back repeatedly.

To cancel the repeat all playback, select "REPEAT ALL" from the menu list again, and press **ENTER**.

Playing back programs

You can specify the playback order yourself.

- 1 Press **▲** or **▼** to select "PROGRAM PLAYBACK" from the menu list and press **ENTER**.
- 2 Press **▲** or **▼** to select to the track number that you want to change the order of and press **ENTER**.
The "▶" mark will appear at the right side of the track number.
- 3 Press **▲** or **▼** to select to the track number that you want to specify and press **ENTER**.
The track number that you select in step 2 moves to the position that you specified.
- 4 Repeat steps 2 and 3 to change the playback order.
- 5 Press **PLAY**.
The tracks will be played back in the changed order.

To cancel program playback, select "EXIT PROGRAM MODE" from the menu list and press **ENTER**.

Playing back track by specifying the time

- 1 Press **▲** or **▼** to select "TIME SEARCH" from the menu list during playback and press **ENTER**.
- 2 Press **▲/▼** or **◀/▶** to specify the elapsed time of the track (this will be the starting point of playback) and press **ENTER**.
Playback will start from the specified elapsed time.

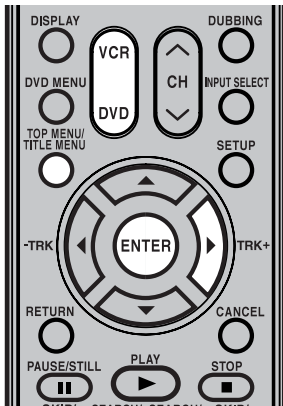
Disc playback

MP3/WMA/JPEG playback



MP3 and WMA files can be played back. Also, you can display JPEG files on the TV screen and enjoy them as a slide show.

Some discs may not play due to the condition of the recording.



Limitations on MP3/WMA/JPEG CD playback:

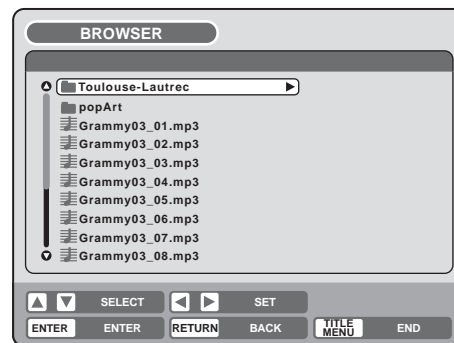
- MP3/WMA/JPEG CD is a disc that is standardized by ISO9660.
- The directory and file names of the MP3/WMA/JPEG CD must correspond to the ISO standardized file names.
- This unit can read 200 files per directory. If one directory has more than 200 files, it reads up to 200 files, the remaining files will be omitted.
- The unit is able to recognize up to a maximum of 50 directories per disc.
- If the CD has both audio tracks and MP3/WMA/JPEG files, only audio tracks are played.
- It may take more than one minute for this unit to read MP3/WMA/JPEG files depending on its structure.
- Music recorded by "Joliet Recording Specification" can be played back. Long file names will be cut.
- The music files recorded by "Hierarchical File System" (HFS) can not be played.

Preparation:

- Turn ON the TV and set to the video input mode.
- Load the disc storing MP3, WMA or JPEG.
- Press **DVD** to select the DVD mode. (The DVD indicator will light.)

Using the BROWSER screen

- 1 Press **TITLE MENU**.
The BROWSER screen will appear.

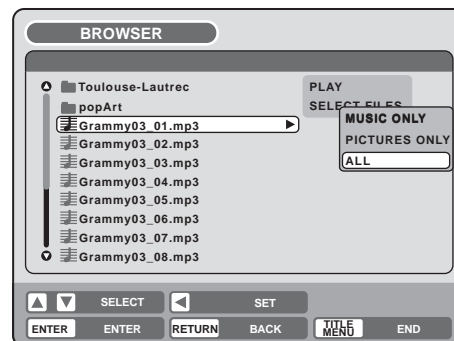


- 2 The MP3, WMA and JPEG files and folders stored in the disc are displayed on the BROWSER screen.
 - Select a folder and press **ENTER**. The files in the folder appear.

When the file to be displayed is selected

You can select the file types to be displayed on the BROWSER screen.

- 1 Press **▶** to select "SELECT FILES" and press **ENTER**.
The following list will appear.



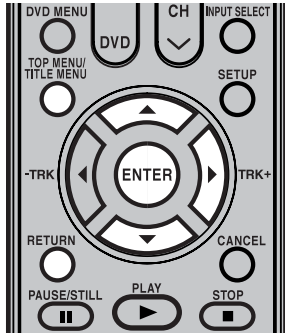
MUSIC ONLY: Only the MP3 and WMA files appear.

PICTURES ONLY: Only the JPEG files appear.

ALL: All files and folders appear.

- 2 Select one item in the above list and press **ENTER**.
The display will be changed to the selected display type.

MP3/WMA/JPEG playback



MP3 CD

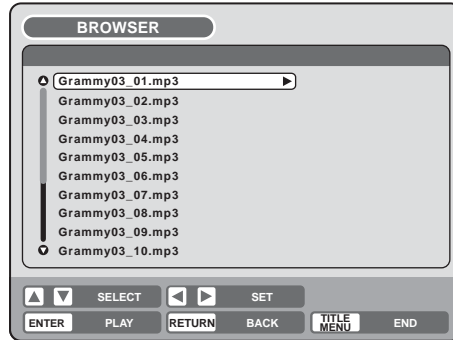
- MP3 files must have the extension letters “.mp3”.
- Standard, sampling frequency, and the bit rate:
 - MPEG-1 Audio
 - 32kHz, 44.1kHz, 48kHz
 - 32kbps to 320kbps (constant bit rate or variable bit rate)
- The recommend recording setting for a high quality sound is 44.1kHz of sampling frequency and 128kbps of constant bit rate.

WMA CD

- When creating a WMA disc, make sure that the copyright function is off. DRM (Digital Rights Management) files cannot be played back.
- WMA files must have the extension letters “.wma”.
- Standard, sampling frequency, and the bit rate:
 - WMA version 7 and 8
 - 32kHz, 48kbps
 - 44.1kHz, 48kbps to 192kbps
 - 48kHz, 128kbps to 192kbps
- Music files recorded as mono, 48kHz, 48kbps cannot be played back by this unit.

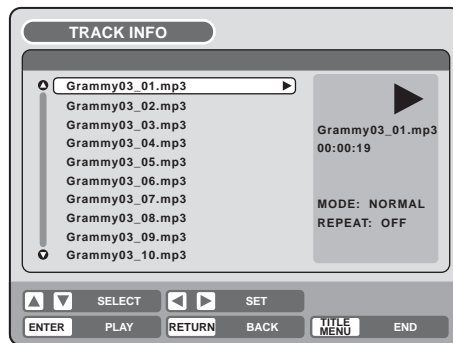
Playing back MP3/WMA files

- 1 Press **▲** or **▼** to select MP3 or WMA file.
 - In case the disc includes more than 10 files, you can turn to the next or the previous page. (See page 42.)



Disc playback

- 2 Carry out either of the item **a** or **b** below.
 - a: Press **ENTER**.
 - b: Press **▶** to select “PLAY” and press **ENTER**.The TRACK INFO screen appears to playback the selected file. For the details of the TRACK INFO screen, see “Various operations on CD” on page 42.

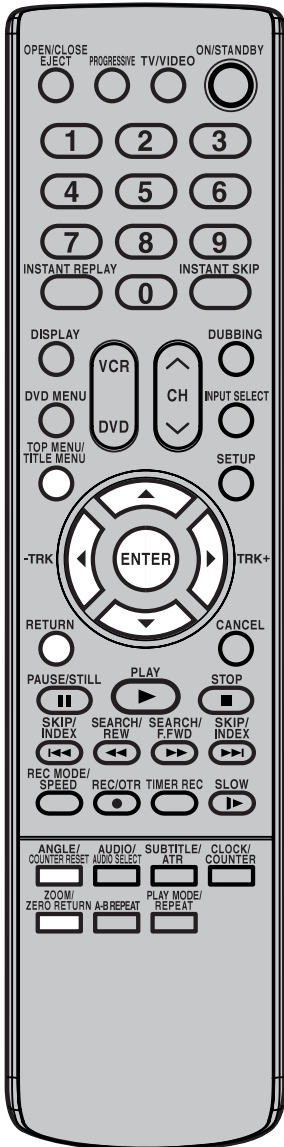


- 3 To return to the BROWSER screen, press **RETURN**.
 - To stop playback of the MP3 or WMA files, press **TITLE MENU**.

This DVD/VCR requires discs and recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or WMA files) and these require certain pre-existing conditions (see above) to ensure compatible playback. Because this area of technology is still evolving, Toshiba cannot guarantee that all recordable discs will produce optimal playback quality. The technical criteria set forth in this owner's manual are meant only as a guide.

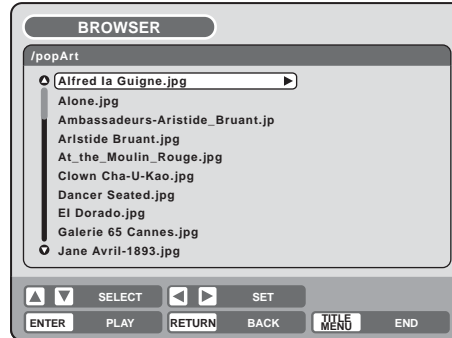
Please be advised that you must obtain permission from the applicable copyright owners to download copyrighted content, including music files, in any format, including the MP3 and WMA formats, prior to the downloading thereof. Toshiba has no right to grant and does not grant permission to download any copyrighted content.

MP3/WMA/JPEG playback



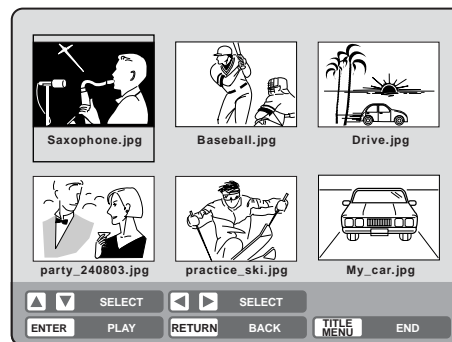
Playing back JPEG files

- 1 Press **▲** or **▼** to select JPEG file.
 - In case the disc includes more than 10 files, you can turn to the next or the previous page. (See page 42.)



- 2 Carry out either of the item **a** or **b** below.
 - a: Press **ENTER**.
 - b: Press **▶** to select "PLAY" and press **ENTER**.

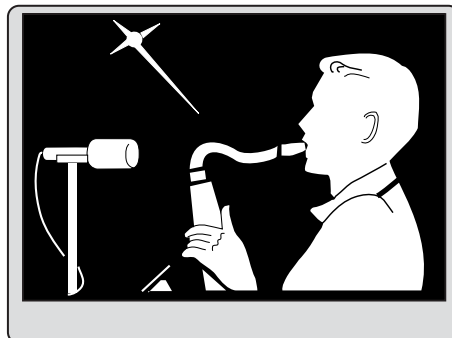
The thumbnail images of the JPEG files stored in the route directory or the folder appear. Press **▲**, **▼**, **◀** or **▶** to select the pages of the thumbnail images, or select the JPEG file to be displayed at first for the slide show.



- 3 Press **ENTER** to play the selected picture.

If you have set the interval time for JPEG slide show, the pictures will be played back one after another automatically. (See page 32.)

 - Press **ZOOM** to enlarge the displayed image.
 - Press **ANGLE** to rotate the image by 90 degrees each time.



- 4 To return to the thumbnail screen, press **RETURN**.
 - To stop the slide show, press **TITLE MENU**.

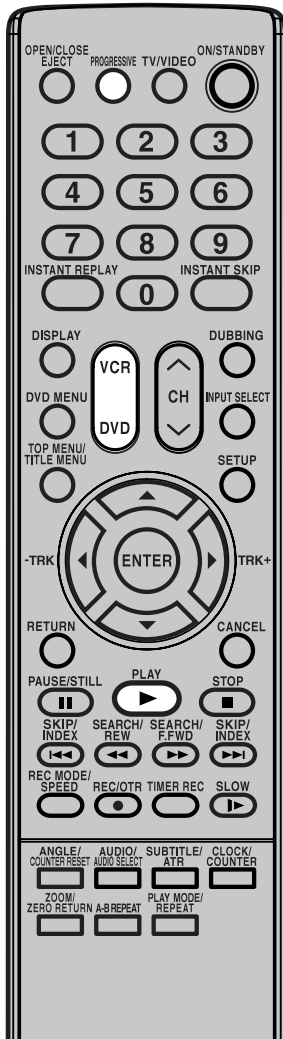
JPEG CD

JPEG files must have the extension letters ".jpe", ".jpeg" or ".jpg".

Progressive scan



The unit supports the progressive scanning system as well as the conventional interlaced scanning system. If your TV is equipped with component video input jacks which support the progressive video input, you can enjoy high quality picture by making the progressive scanning mode active.



Preparation:

- Connect to a TV equipped with component jacks which support the progressive video input.
- Turn ON the TV and set it to the corresponding video input mode.
- Press **DVD** to select the DVD mode. (The DVD indicator will light.)

- 1 Press **PROGRESSIVE** in the stop mode. The PROGRESSIVE indicator "P" on the display window will light.
 - The unit recognizes the picture source (film or video) of the current disc according to the disc information.

- 2 Press **PLAY** to start playback.



- To make the progressive scanning mode inactive, press **PROGRESSIVE** in the stop mode. The PROGRESSIVE indicator "P" on the display window will go off.

Different scanning modes

Interlaced scan

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

Progressive scan

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

Disc playback

NOTES:

- Some discs may not be played back with the progressive scan mode correctly because of the disc characteristics or recording condition.
- There are some progressive TV and High-Definition TV sets that are not fully compatible with the unit, resulting in an unnatural picture when playing back a DVD disc in the progressive scan mode. In such a case, use the interlaced scanning mode.
- You cannot activate the progressive scan mode in the following cases:
 - The unit is in the VCR mode.
 - A DVD disc is currently playing. You must stop playback first.



Tape playback

Loading and unloading a cassette tape



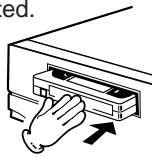
Use only video cassette tapes marked **VHS** and **S-VHS**.

SQPB

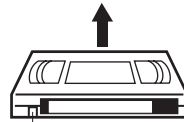
- Cassettes marked "VHS" (or "S-VHS") can be used with this video cassette recorder. However, S-VHS recording is not possible with this model.
- This model is equipped with SQPB (S-VHS QUASI PLAYBACK) that makes it possible to playback S-VHS recordings with regular VHS resolution.
- HQ VHS is compatible with existing VHS equipment.

Loading

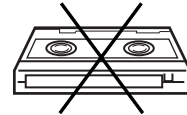
Push the center of the tape until it is automatically inserted.



Insert the cassette tape with its labeled side facing up and the erase prevention tab positioned at your left. An inverted cassette tape cannot be inserted.



Erase prevention tab



Automatic power ON

When you insert a cassette tape the VCR power will turn ON automatically.

Automatic playback

When loading a cassette tape without an erase prevention tab, playback will start automatically.

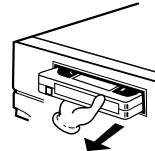
Unloading

You can eject the video tape while the unit is turned off.

1 Press **EJECT** on the unit or the remote control.



2 Remove the cassette tape.

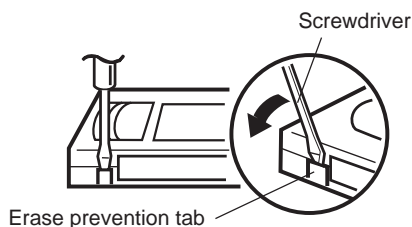


Automatic tape eject

This VCR will automatically rewind the tape when the tape has ended. And when the tape is rewound to its beginning, the cassette tape will be ejected automatically.

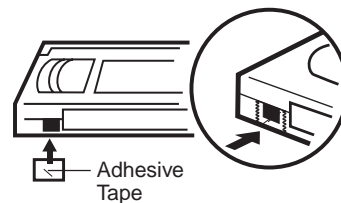
To prevent accidental erasure

Remove the erase prevention tab with a screwdriver.



To record again

Cover the hole with a piece of adhesive tape.

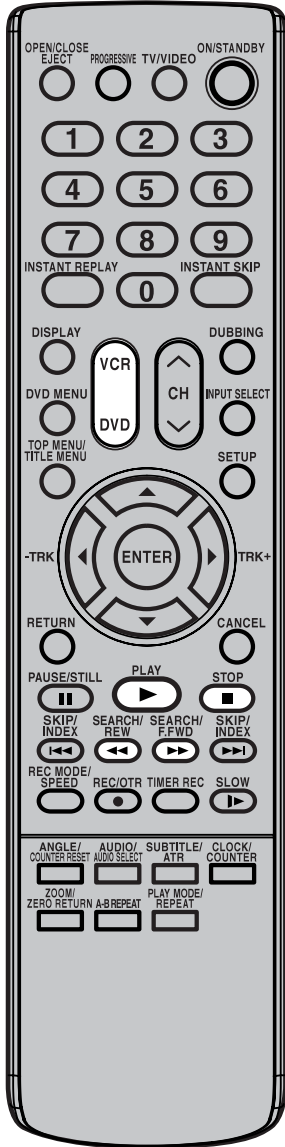


Tape speed and maximum recording time

Tape Speed	Video cassette tape				
	T-160	T-120	T-90	T-60	T-30
SP (Standard Play)	2-2/3 hours	2 hours	1-1/2 hours	1 hour	30 minutes
SLP (Super Long Play)	8 hours	6 hours	4-1/2 hours	3 hours	1-1/2 hours



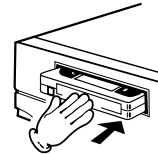
Cassette tape playback



Preparation:

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

- 1 Load a prerecorded tape
(When loading a cassette tape without the erase prevention tab, playback will start automatically).



- 2 **To start playback**
Press **PLAY**.
Playback will start.
“▶” will appear on the screen for about 4 seconds.



Tape playback

- To stop playback**
Press **STOP** once.
The tape will stop but remain fully loaded and ready to play.
“■” will appear on the screen for about 4 seconds.

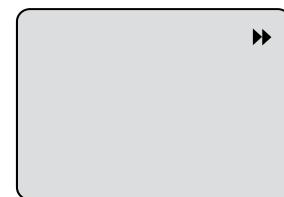


- To rewind the tape or forward it rapidly**
Press **STOP**.

- To rewind the tape:**
Press **REW**.



- To forward the tape:**
Press **F.FWD**.



To stop the tape-winding, press **STOP**. To switch to playback directly (without **STOP**), press **PLAY**.

Forward/Reverse picture search mode

When the tape is being wound, you can switch to picture search mode (see next page). To do this, press **REW** or **F.FWD** and hold it down. The unit will resume the tape winding as soon as the button is released.

NOTES:

- This VCR selects the playback tape speed SP, LP or SLP automatically.
- A cassette tape and DVD disc can be played back simultaneously. If you press **VCR**, the tape playback and DVD playback alternate with each other on the screen.



Tape playback

Special playback



Picture search

Reverse picture search function

Press **REW** x 1 or x 2 during the playback.

Forward picture search function

Press **F.FWD** x 1 or x 2 during the playback.

To return to playback: Press **PLAY**.

SPEED SEARCH TIMES

TAPE SPEED	PICTURE SEARCH SPEED	
	PRESS ONCE	PRESS TWICE
SP (Standard Play)	3 X	5 X
LP (Long Play)	7 X	9 X
SLP (Super Long Play)	9 X	15 X

Still picture

Press **PAUSE** during playback.

To resume normal playback: Press **PLAY** or **PAUSE**.

Slow motion

During playback press **SLOW**.

To return to playback: Press **PLAY** or **SLOW**.

Slow tracking and vertical lock adjustment

If noise bars appear in the picture during slow motion, press the **TRK +** or **-** to reduce the noise bars.

If the still picture jitters excessively, press **TRK +** or **-** to stabilize the still picture.

Frame by frame picture

Press **PAUSE** during playback.

Press **SLOW** one by one: The picture advances frame by frame.

To return to playback: Press **PLAY** or **PAUSE**.

Adjusting tracking condition

Automatic tracking adjustment

Whenever you insert a tape and start playback, automatic tracking starts working and continuously analyzes the signal to enable optimum picture quality during playback.

Manual tracking adjustment

If automatic tracking cannot eliminate noises well during playback, press **TRK +/-** to eliminate the noises. "MANUAL TR." will appear. Press it briefly for a fine adjustment, or press and hold for a coarse adjustment.

- Press **ATR** to reactivate automatic tracking again. "AUTO TR." will appear.

NOTES:

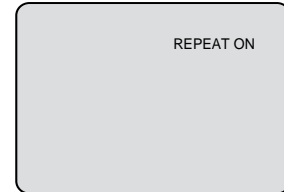
- The audio output is muted during SPEED SEARCH, STILL, FRAME ADVANCE and SLOW MOTION.
- During picture search mode there will be noise bars which are caused by the system.
- The Special Playback will automatically change to playback after approx. 5 minutes to protect the video tape against excessive wear.

Repeat playback

The entire video tape will be played until its end. The tape will then automatically rewind to the beginning and the playback will be repeated.

- 1 Press **REPEAT** while the VCR is playing back.

- 2 By pressing **REPEAT** each time, "REPEAT ON" or "REPEAT OFF" is selected in turn.



- 3 When "REPEAT ON" is selected, the tape is played back to the end, and then, it is automatically re-wound to the starting point and played back again. The display "REPEAT ON" goes out in about 3 seconds.

To cancel repeat playback: Press **REPEAT** to select "REPEAT OFF".

Instant skip

Press **INSTANT SKIP** during playback.

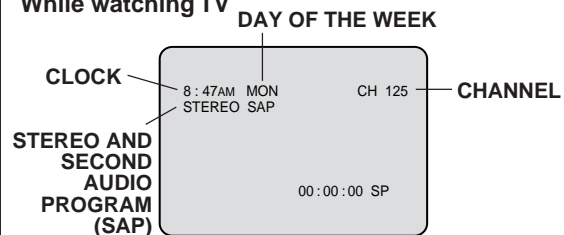
The video is rapidly forwarded for approx. 30 seconds and playback resumes.

You may press the button up to six times in a row to move 180 seconds ahead.

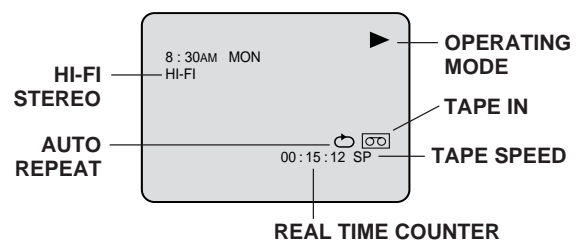
To display VCR operation status

Press **DISPLAY**. The clock, day of the week and more information will be indicated.

While watching TV



While operating a tape

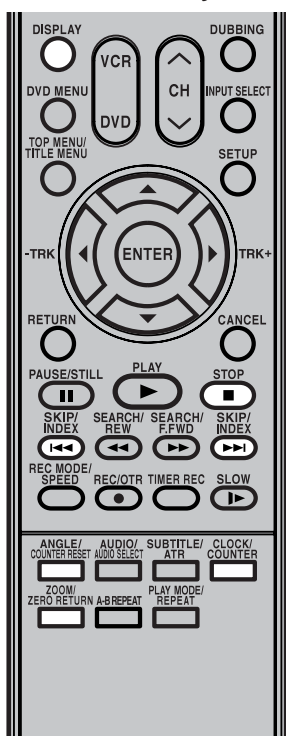


To cancel the display: Press **DISPLAY** until all indicators disappear.

ZERO RETURN function / Video index search system



ZERO RETURN function
This function makes tape rewinding stop at the counter "00:00:00" position automatically.



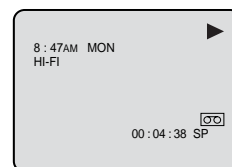
NOTES for Counter Display:

- If you rewind the tape beyond "00:00:00", a minus sign ("-") will be displayed in front of the time.
- When you load a tape, the counter will reset to "00:00:00".
- The counter does not function on nonrecorded (blank) sections of the tape. When you rewind, fast forward or play tapes through blank sections, the counter stops.

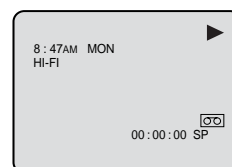
NOTES for Video index search system:

- When you record an INDEX mark at the very beginning of the tape, the mark may not be found.
- During INDEX search, the tape may stop and begin to play at a slightly different location.
- INDEX may not function properly with old or worn out video tapes.
- INDEX marks may not be found if it is extremely close to the point where the search began.
- In recording, if you stop recording temporarily, the INDEX mark is not recorded on the tape.

- 1 Press **DISPLAY**.
The counter display shows the tape running time during playback or recording.



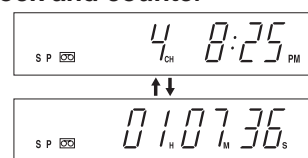
- 2 Press **COUNTER RESET** at the desired tape position. The counter display will be reset to the "00:00:00" position (e.g. the beginning of recording).



- 3 Press **STOP** when playback or recording is finished. Press **ZERO RETURN**.
The tape will be rewound or fast forwarded and automatically stop at the "00:00:00" position.

Switching the display between clock and counter

Press **CLOCK/COUNTER**. The clock and tape counter alternate with each other in the display.



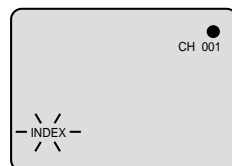
Tape playback

Video index search system

This function enables you to locate the beginning of any recording made on the VCR.

Recording an INDEX MARK

The Index search function automatically records an INDEX mark on the tape whenever a recording is initiated.



Index search

Press **INDEX** **▶▶** or **◀◀** during stop or play mode.

For Succeeding programs: Press **INDEX** **▶▶**.
For Preceding programs: Press **INDEX** **◀◀**.
(Additional press increases the INDEX NO. up to 9.)

When the **INDEX** **▶▶** or **◀◀** is pressed, the unit starts searching the INDEX NO. selected and finds the portion, then playback starts automatically.

To stop the Index Search, press **STOP**.



▶▶ or ◀◀ is displayed
INDEX NO. (up to 9)



Read this before recording on disc

This section explains things you must know to record onto a disc. Read it before attempting to record.

NOTE:

Should a power failure occur or should the AC cord plug be disconnected while recording, editing, initializing, finalizing or any other function, the program being recorded will be lost or the disc may not be playable. Manufacturer can not guarantee against loss of program or disc should this occur. To start recording again, re-format the disc or use a new disc and follow the instruction on recording.

NOTES:

Recording time can change for the following reasons.

- When image quality is poor as during poor TV reception.
- When recording on a disc that has been edited before.
- When the video is followed with recordings of still images or just audio.

NOTE:

Because of characteristics peculiar to digital video compression technology, scenes with fast motion may appear as a matrix of larger blocks.

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Types of disc

You can use DVD-RW and DVD-R discs to record video.

DVD-RW (VR mode)

- This mode involves multiple editing functions.
- Various editing options using a created Playlist.

DVD-RW (Video mode)/-R

- Simple editing (renaming titles).

For more information on recording format, see "Recording format" (page 10).

Recording modes

There are 4 modes for recording on disc. Recording time and quality vary according to mode.

Recording mode	Recording time	Quality
XP	Approx. 60 min	Can record high quality images.
SP	Approx. 120 min	Can record normal quality images.
LP	Approx. 240 min	Quality deteriorates slightly, but recording time is longer.
SLP	Approx. 360 min	Recording time is prioritized over quality.

- Recording time above is based on a 4.7GB disc.

Since DVD recording is performed using VBR (Variable Bit Rate), recording time varies according to the recorded content.

To know the correct recording time, stop recording and check the media information. (See page 35.)

Disc remaining time

VR mode

- Recording is possible as long as there is available space on the disc. (Finalized discs can be recorded by cancelling the finalization, see "UNDO FINALIZE" on page 28.)
- Erasing unnecessary title frees up available space on the disc. (Titles can be erased from finalized discs by first undoing the finalization. See "UNDO FINALIZE" on page 28.)

Video mode

- Up until the disc is finalized, recording is possible as long as there is available space on the disc. (Once the disc has been finalized, additional recording and erasing are not possible.)
- The remaining time cannot be increased, nor can recorded title be overwritten.
- Titles cannot be erased nor can recorded titles be overwritten.





Read this before recording on disc

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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)

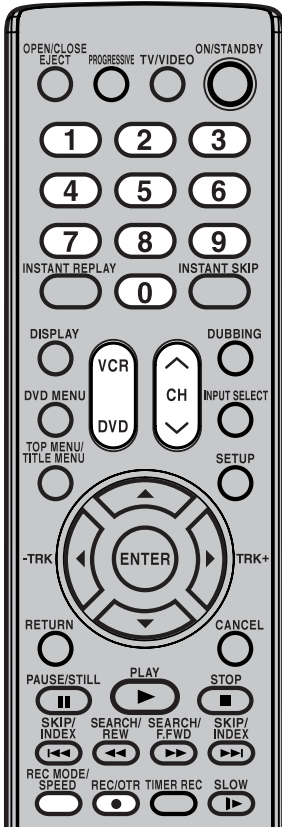
Programs (images) that contain the one-time recordable signal can be recorded only in the VR mode using a DVD-RW disc that supports CPRM Ver. 1.1 and Ver 1.2.

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 from when you press **REC/OTR** until recording actually starts. Press **REC/OTR** a little before your preferred starting point. With a video tape, recording starts almost at the same time you press **REC/OTR**.
- If the erase prevention tab of video tapes is removed, the tape will eject when **REC/OTR** is pressed for recording.

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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

VCR mode

00:00:00 SP

DVD mode

SP

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 52.

- Set the TV/CABLE option to the appropriate position (page 32).

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)
	60-85 (AAA) (ZZZ)
	86-94 (86) (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.

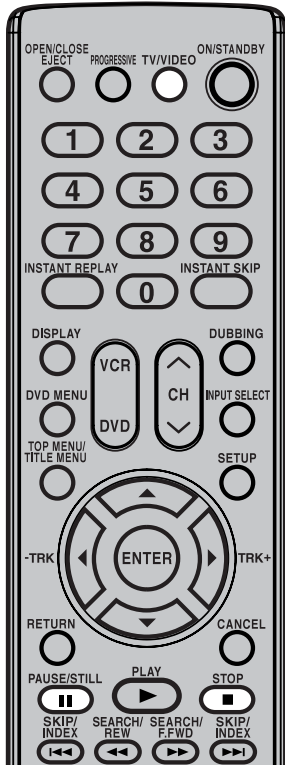
VCR mode

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 "Disc is full" will appear on the screen.
- In the event of a power failure during DVD recording including OTR and TIMER REC, the program can not be recorded on the disc.

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 a few minutes to about 1 hour according to disc condition. In this process "SYSTEM ERROR PLEASE WAIT DISC CHECKING" will appear on the screen.

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To stop recording

Press **STOP** to stop recording. "■" will appear on the screen for about 4 seconds.



NOTE:

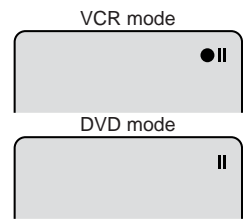
When recording onto a DVD, even if **STOP** is pressed during recording, recording does not stop instantly. Recording may continue for as long as 1 minute maximum.

To stop recording temporarily

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

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

Press again to resume recording.



NOTES:

- In video recording, the pause function will be released after 5 minutes to prevent damaging the video tape. 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.

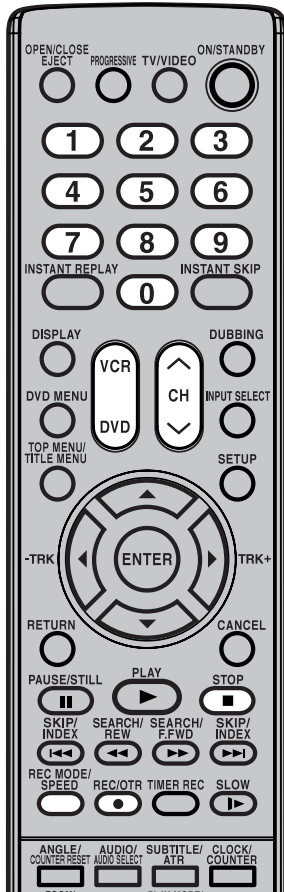
NOTE:

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

One-touch Timer Recording (OTR)



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



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 the step 1 on page 54.

VCR mode

00:00:00 SP

2 Set the TV/CABLE option to the appropriate position (See page 32).

DVD mode

SP

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

TV - VHF/UHF channels

CABLE - CABLE TV channels

CH 110

4 Press **REC/OTR**. Each additional press of **REC/OTR** will increase 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	NORMAL REC
6 times	OTR 2:00		

VCR mode

OTR 0:30

CH 110

DVD mode

OTR 0:30

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.

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To cancel OTR

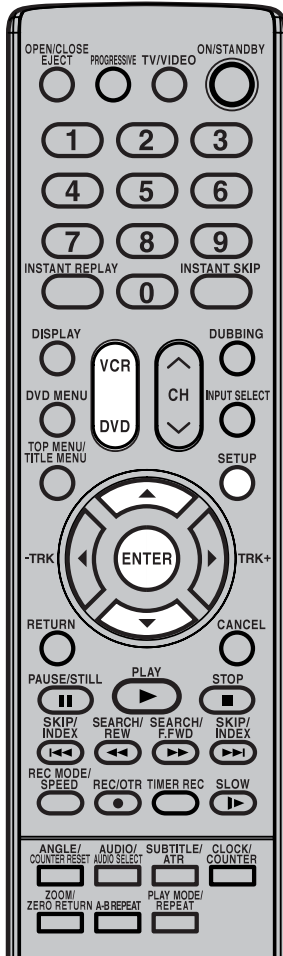
Press **STOP** or turn off the power.
"■" will appear on screen for about 4 seconds.



Timer recording



The timer recording system allows you to select the date, time and 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 "□" flashes. Replace the tape or disc to allow re-recording.

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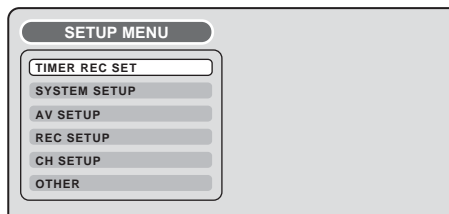
Setting timer recording

Preparation:

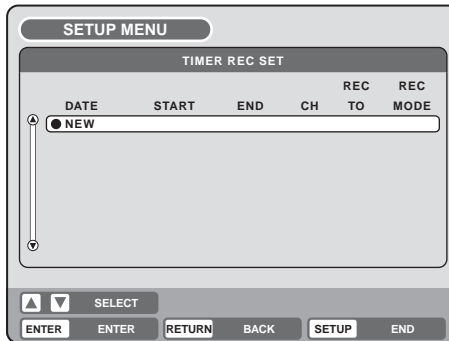
- Turn ON the TV and set to the video input mode.
- Load a recordable DVD or video tape.
- Press **DVD** or **VCR** to select the appropriate mode.
- Confirm that the clock is indicating the correct time.

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.

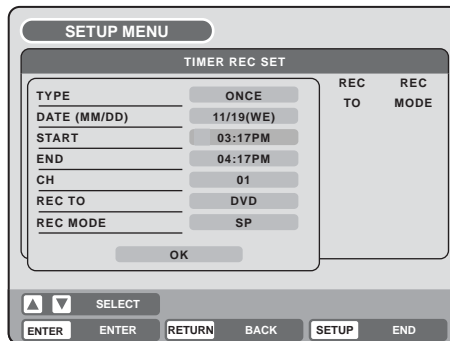
- 1 Press **SETUP**.
The SETUP MENU screen appears.



- 2 Press **▲** or **▼** to select "TIMER REC SET" and press **ENTER**.
The TIMER REC SET screen will appear.

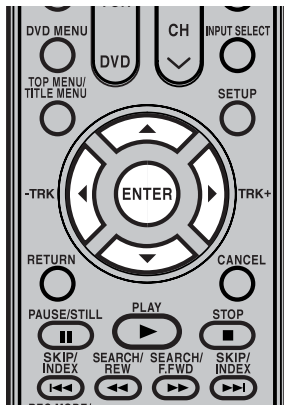


- 3 Press **▲** or **▼** to select "NEW" and press **ENTER**.
The program screen will appear.



Recording

Timer recording



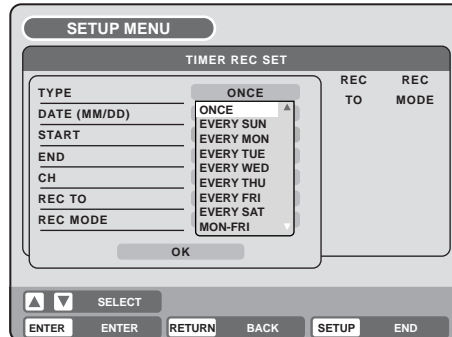
NOTES:

- If you select timer recording on a specified date only one time, select "ONCE" in the "TYPE" for recording. You can record same days of every week or from Monday to Friday using the item "TYPE". The items you can select are as follows:
ONCE: Recording on the selected "DATE"
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 the 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 initial setting of "REC TO" and "REC MODE" can be changed using "Setting the recording". (See page 31.)

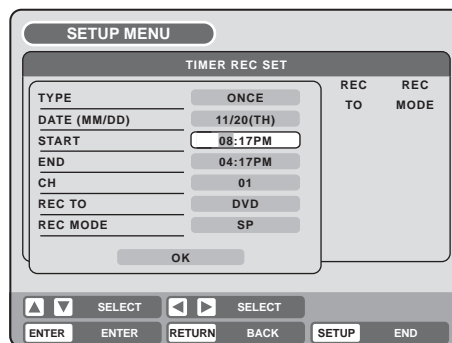
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- Press **▲** or **▼** to select "TYPE" and press **ENTER**.
Press **▲** or **▼** to select "ONCE" from the list and press **ENTER**.

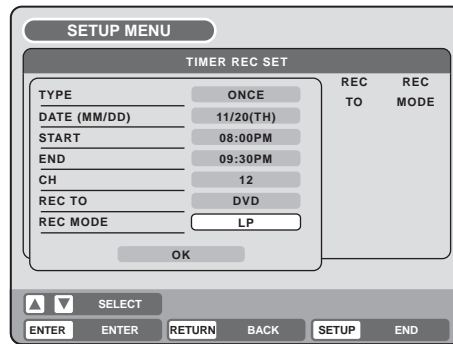
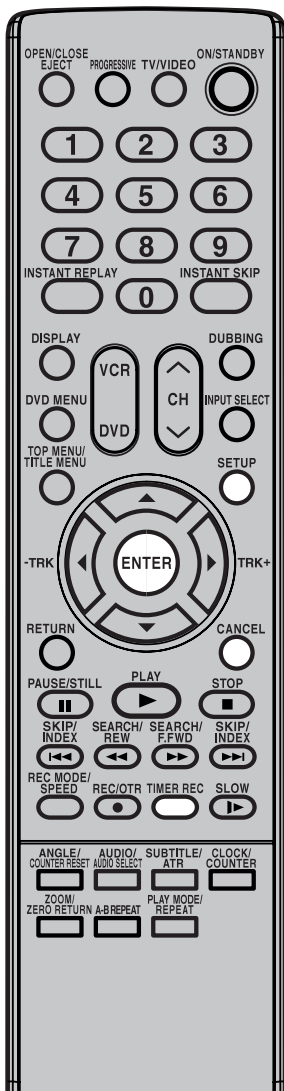


- Press **▲** or **▼** to select "DATE" and press **ENTER**.
Press **▲** or **▼** to select the date to be recorded from the list and press **ENTER**.
- Press **▲** or **▼** to select "START" and press **ENTER**.
Set the time when the recording is started.
 - To switch over the selection item (hour or minute), press **◀** or **▶**, then press **ENTER**.
 - Press **▲** or **▼** to adjust the time.
 - After setting the time, press **ENTER**.



- Press **▲** or **▼** to select "END" and press **ENTER**.
Set the stopping time in the same manner for setting the starting time of timer recording.
- Press **▲** or **▼** to select "CH" and press **ENTER**.
 - Press **▲** or **▼** to select the channel to be recorded.
 - You can select the external input (L1 or L2) by pressing **◀** or **▶**.
- Press **▲** or **▼** to select "REC TO" and press **ENTER**.
Select the media (DVD or VCR) to be recorded from the list and press **ENTER**.
- Press **▲** or **▼** to select "REC MODE" and press **ENTER**.
The recording modes for the media selected in "REC TO" item are listed up.
Select the recording mode and press **ENTER**.
For the recording modes in VCR, see page 48, and for the recording modes in DVD, see page 52.

Timer recording



- 11 Select "OK" and press **ENTER**.
The timer program is determined and the **TIMER REC SET** screen appears again.
- 12 When you enter the other program for the timer recording, repeat the steps 3 to 11.
- 13 Press **SETUP**.
The **TIMER REC SET** screen disappears and the display will return to the normal screen.
- 14 Press **TIMER REC**. The timer indicator "□" will appear on the display and the unit stands by for recording.
 - If the program is DVD recording only, the unit will change to VCR mode automatically. (The DVD mode cannot be selected.)
 - If the program is VCR recording only, the unit will change to DVD mode automatically. (The VCR mode cannot be selected.)
 - If the programs are DVD and VCR recording, the unit will turn off. If you want to use the unit, press **TIMER REC** again to deactivate the timer.

Recording

NOTES:

- Recording starts a few seconds before the preset starting time.
- You cannot use the timer recording for the both DVD and VCR at the same time.
- You can playback the DVD during the VCR timer recording, and you can playback the VCR during the DVD timer recording.

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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" and display the **TIMER REC SET** screen. To change the timer recording, select the program to be changed and press **ENTER**. The changing method is the same as that for the recording a program for the first time.

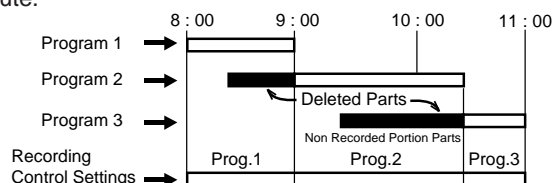
Cancelling the timer recording

Display the **TIMER REC SET** screen. Select the program you want to cancel and press **CANCEL**, then the selected program will be erased from the timer recording list.

In case Timer programs-overlap

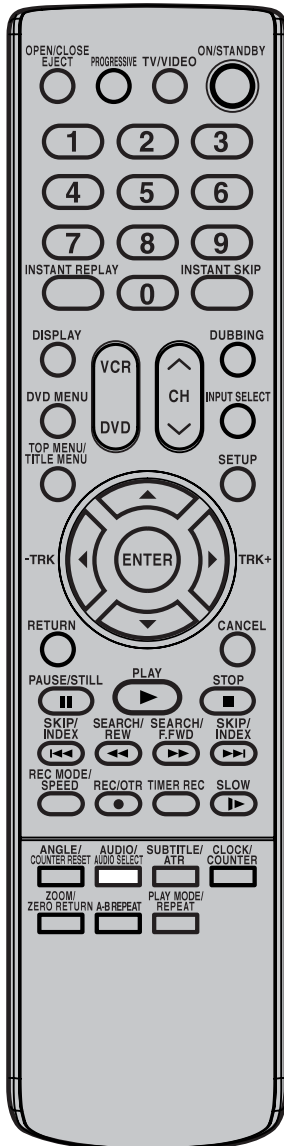
Do not overlap timer programs as portions of the conflicting programs will be lost. The first recording time has priority over the next recording time as shown in the diagram below.

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



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.

STEREO

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.

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



You can switch between the left or right channel and stereo only when playing a disc on which a bilingual broadcast was recorded in the DVD-RW VR mode. 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 in the DVD-RW Video mode or DVD-R (see page 31).

NOTE:

When a stereo or monaural broadcast is recorded, either stereo or monaural, respectively, is played back and it is not possible to switch between channels.

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 cord 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 34), 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 scenes.

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.

If you create a playlist, both the original title and playlist will be displayed on the title menu.

Editable items

The items that can be edited are different between original title and playlist. For the disc in Video mode, only the title name can be edited. The items can be edited in each are as follows:

Editing items	VR mode		Video mode
	Original	Playlist	Original
Playback	Y	Y	Y
Adding chapter mark	Y	N	N
Combining chapters	Y	N	N
Erasing scenes	Y	Y	N
Erasing titles	Y	Y	N
Renaming titles	Y	Y	Y
Creating playlist	Y	N	N
Combining titles	N	Y	N

If you finalize the disc in Video mode, the title menu is automatically changed. Thumbnail image and recording information will not appear in the title menu after finalizing.

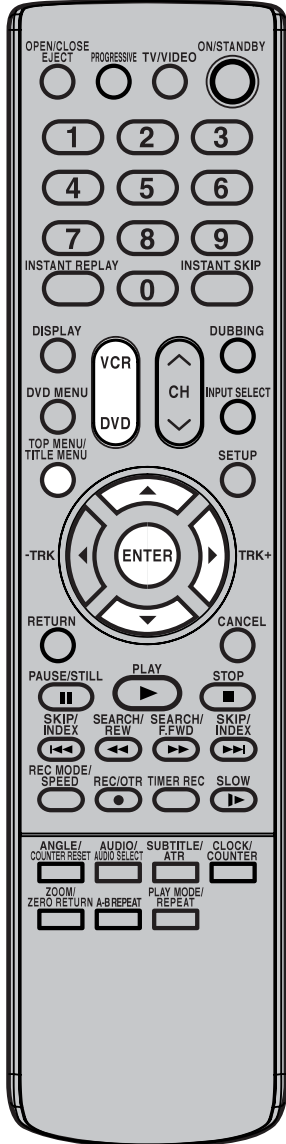
Using these editing functions to modify copyrighted content for any purpose other than your private viewing may be prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

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, be sure to cancel the disc protection before starting the operation.
- When a scene has been erased, the selected position for erasing may vary slightly from the actual erased position.

Editing a playlist

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



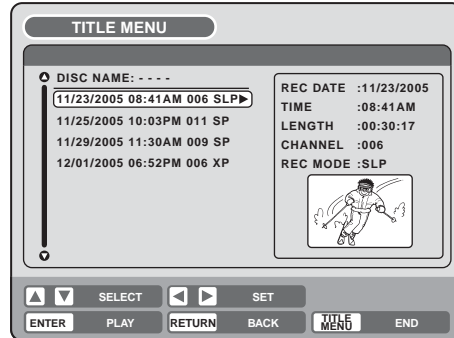
Preparation:

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

Creating a playlist



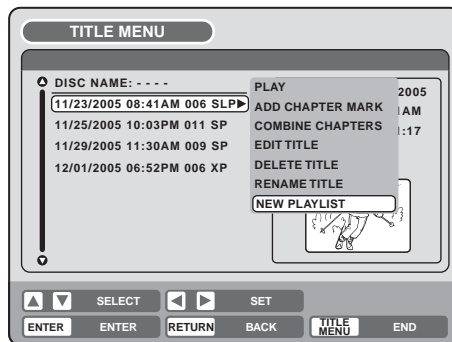
- 1 Press **TITLE MENU**.
The title menu will appear.



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

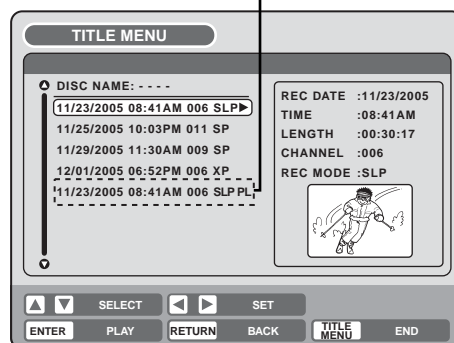
- 3 Press ▶.
The editing menu of original title will appear.

- 4 Press ▲ or ▼ to select "NEW PLAYLIST".



- 5 Press **ENTER**.
The editing menu closes and the created playlist appears at the bottom of the list.

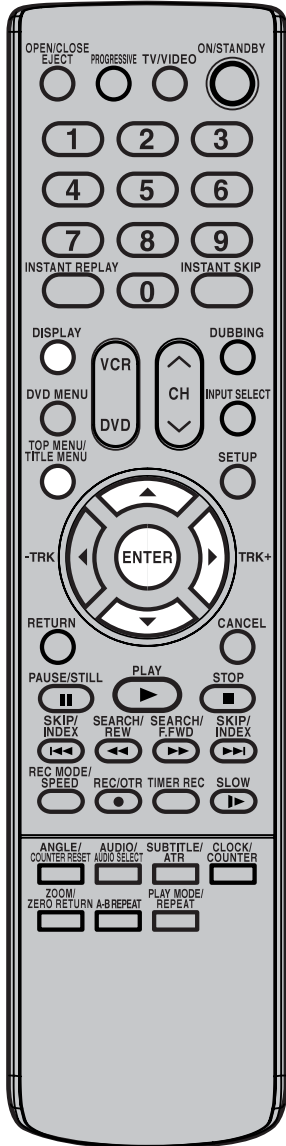
Created playlist



NOTES:

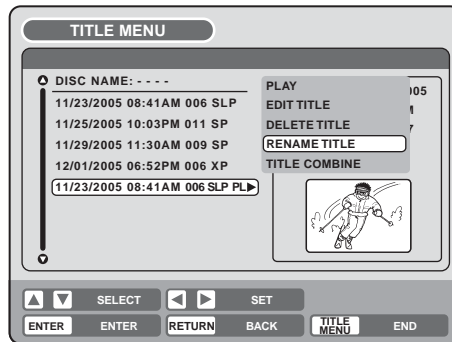
- A playlist can only be created with a DVD-RW in VR mode. You cannot create a playlist with a DVD-RW in Video mode, nor with a DVD-R.
- In case the disc includes more than 10 titles, you can turn to the next or the previous page. (See page 34.)

Editing a playlist



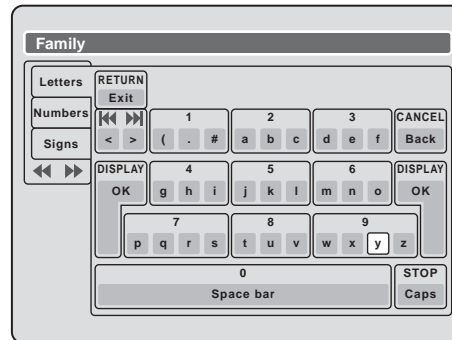
Changing a title name

- 1 Press **TITLE MENU** to display the title menu.
- 2 Select the playlist where you want to change the title name.
 - Press **▲** or **▼** to select the playlist.
 - Press **▶** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "RENAME TITLE".

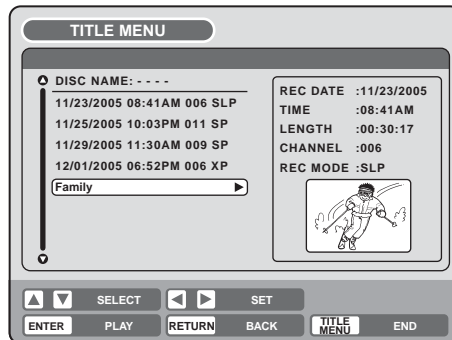


- 3 Press **ENTER**.
The keyboard screen will appear.

- 4 Use the keyboard screen to enter the title name.



- 5 Press **DISPLAY** to return the title menu.

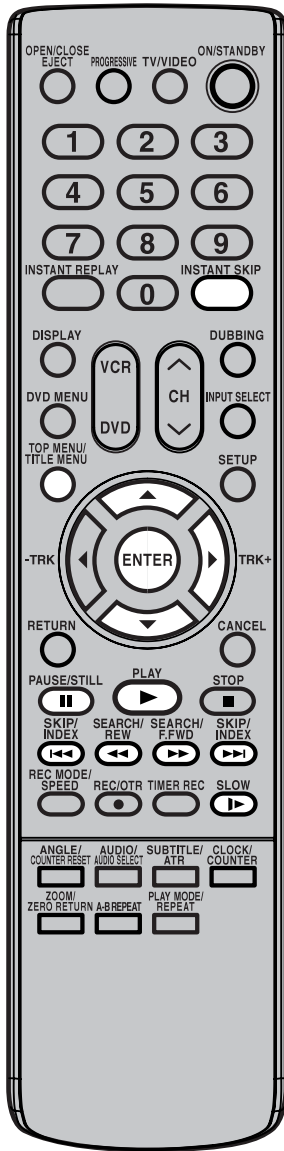


NOTES:

- The title name can be a maximum of 64 characters. Long names will be shortened in the title menu.
- For using the keyboard screen, see "Changing a disc name" (page 74).

Editing the disc

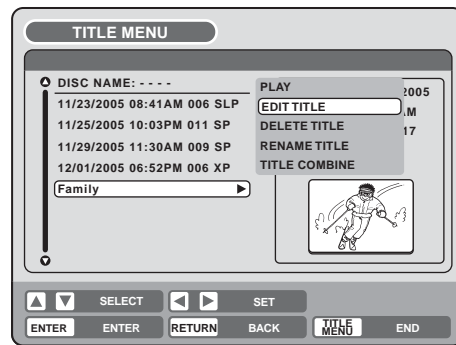
Editing a playlist



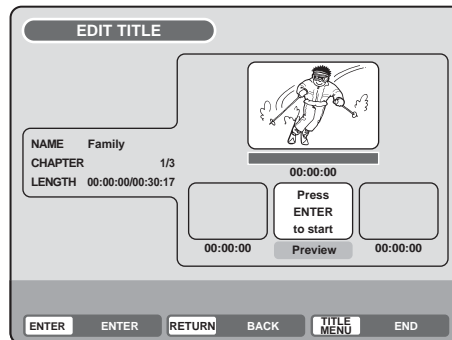
Erasing a scene (Edit title)

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

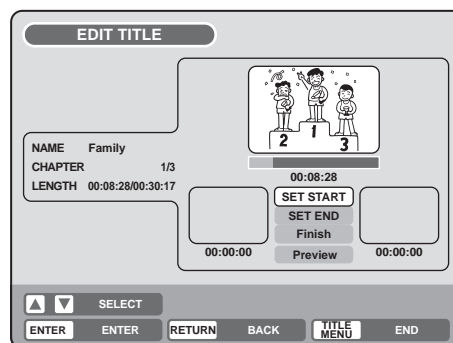
- 1 Press **TITLE MENU** to display the title menu.
- 2 Select the playlist where a scene you want to erase is included.
 - Press **▲** or **▼** to select the playlist.
 - Press **▶** to display the editing menu of the playlist.
 - Press **▲** or **▼** to select "EDIT TITLE".



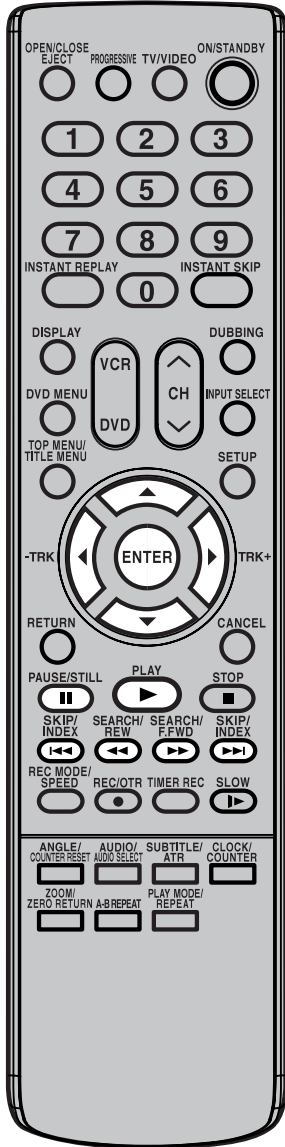
- 3 Press **ENTER**.
The EDIT TITLE screen appears.



- 4 Press **ENTER** to playback the playlist on the EDIT TITLE screen.
 - Use each operation button (**F.FWD**, **REW**, **SKIP +**, **SKIP -**, **PLAY**, **PAUSE/STILL**, **SLOW**, **INSTANT SKIP**) for the playback to search the starting point of the scene you want to erase.



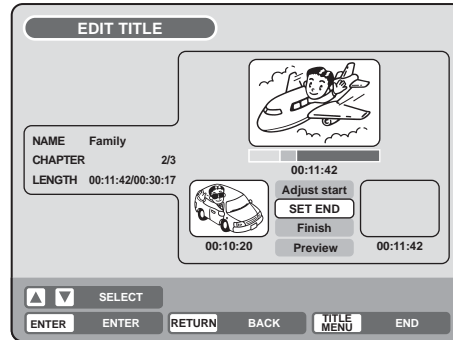
Editing a playlist



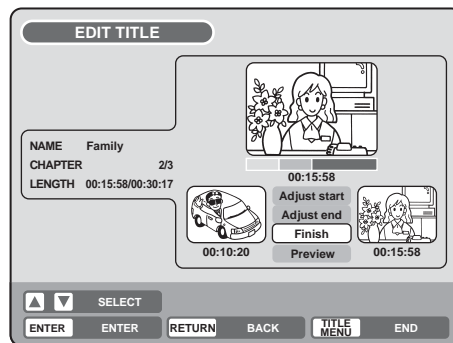
NOTE:

It is no problem to omit the procedures for confirming the scene or adjusting start and end points.

- Press **▲** or **▼** to select “SET START” at the start point of the scene that you want to erase and press **ENTER**. (To set the start point easily, search the start point while “SET START” is selected) The still image at the start point appears at the left small screen.



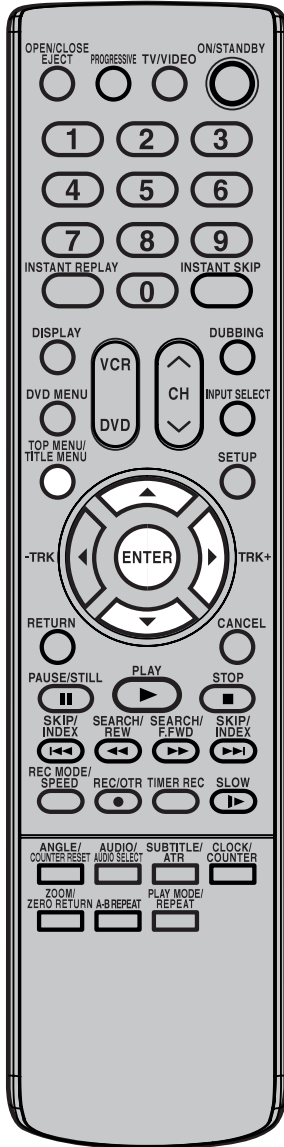
- Press **▲** or **▼** to select “SET END” at the end point of the scene you want to erase and press **ENTER**. The still image at the end point appears at the right small screen.



- Check the erased scenes.
 - Select “Preview” and press **ENTER**. Then the video where the scenes between the start and end points are erased is played back.
 - Each operation button (**F.FWD**, **REW**, **SKIP +**, **SKIP -**, **PLAY**, **PAUSE/STILL**) for playback also can be used.
- Adjust the start and end points.
 - To adjust the start point, select “Adjust start” and press **ENTER**. You can change the start point by pressing **◀** or **▶**.
 - To adjust the end point, select “Adjust end” and press **ENTER**. You can change the end point in the same way as the start point.
- If you determine the scene to be erased, press **▲** or **▼** to select “Finish” and press **ENTER**.
 - A chapter mark is automatically added at the location of the erased scene.

Editing the disc

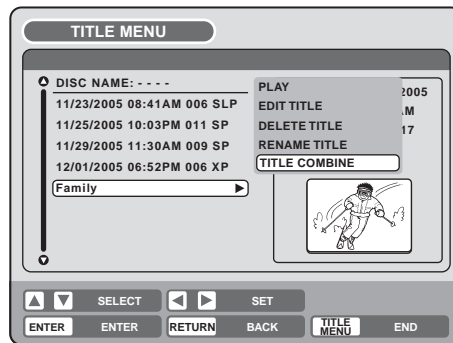
Editing a playlist



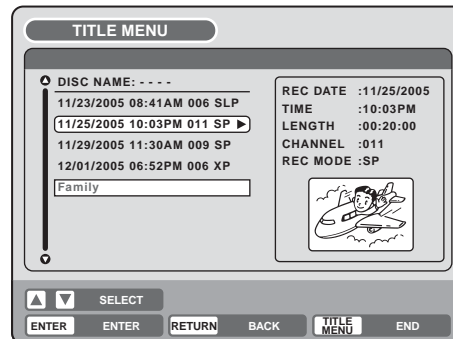
Combining the title

You can create a playlist by combining the several original titles or playlists. To combine the titles, it is necessary to create a playlist at first. By combining the titles in the playlist, a playlist where several titles are combined is created.

- 1 Press **TITLE MENU** to display the title menu.
- 2 Select the playlist where you want to combine the titles.
 - Press ▲ or ▼ to select the playlist.
 - Press ► to display the editing menu of the playlist.
 - Press ▲ or ▼ to select "TITLE COMBINE".



- 3 Press **ENTER**.
Select the title that you want to combine from the title menu.



- 4 Press **ENTER**.
Following the playlist, the selected title is combined. The several titles were combined so that the total recording time is displayed.

