



TOSHIBA



HDD/DVD VIDEO RECORDER **RD-X2U**

OWNER'S MANUAL



OPERATIONS

Read "INSTALLATION GUIDE" first.



Introduction

Basic operations

Playback

Recording

Dubbing

Editing

Function setup

Others

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About this product

Digital AV equipment

This recorder is operated by sophisticated software and is different from other conventional AV equipment. Within the recorder, a DVD-RAM/R drive and a hard disc drive are connected by ATAPI, one of the standard connections used for personal computers (PCs). The hardware and software work by way of an operating system (OS), which requires some time to start up after turning on the power. Also, some commands, such as erasing recorded contents may take time to execute.

About the internal hard disc (HDD)

Generally, hard discs (HDD) are very fragile. Depending on the operating conditions, the internal HDD may partially fail, or in the worst cases, may completely stop functioning. Therefore, use the HDD as a temporal storage, not as a long-term archive. After watching the recorded contents once or copying it to a DVD-RAM disc, the contents should be erased from the HDD. If the damaged part of the HDD is used for recording, block noise may occur. If you continue using the HDD, the noise may worsen, and you risk permanent damage to the entire HDD. When such noise is observed, copy the HDD's contents to a DVD-RAM disc immediately. Like a hard disc in a PC, the HDD can be easily damaged, and should be used cautiously with a backup.

Playback Restriction

This owner's manual explains the basic instructions for this recorder. Some DVD video discs are produced in a manner that allows specific or limited operation during playback. As such, the recorder may not respond to all operating commands. This is not a defect in the recorder. Refer to the instruction notes of discs.

“⊘” may appear on the TV screen during operation. “⊘” means that the operation is not permitted by the recorder or the disc.

Using different disc types for different purposes

Use DVD-RAM discs for your personal library

DVD-RAM discs comply with the global standard DVD-VR (Video Recording) format, and are optimized for recording of TV programs. You can rewrite them about 100,000 times without any deterioration, erase unnecessary parts, divide a chapter, or specify playback area by frame. Its cartridge is suitable for a long-term storage and family use, and its large capacity of 9.4 GB double sided disc is space saving.

Use DVD-R discs when creating your own original discs for distribution

DVD-R discs comply with the global standard DVD-VIDEO format, and can be recorded only once. DVD-R discs are convenient when you edit your original content (recorded personal events such as a wedding party) with your PC, and send them to your friends or relatives. The discs can be played on other DVD players. (Not all compatible DVD video players can play DVD-R discs recorded with this recorder.)












* This format is not suited for recording TV programs. According to DVD-VIDEO format, recording and dividing into chapters must be by 15 frames. Possibly an unnecessary part may remain even after editing. Also, you cannot record bilingual programs, and programs that permit copying only once.



Compatible discs

You can enjoy recording and playback using the HDD of this recorder. When you want to play software or perform dubbing, load a disc into the recorder. There are many types and formats in discs. Confirm the compatibility of selected disc to insure proper performance.

Note

Depending on the data recording method or the disc status, playback or recording on this recorder may not be possible, even if the disc is labeled as below. In such a case please contact the sales agency of the disc.

Disc	Mark	Specification	Remarks
For recording / playback			
DVD-RAM		<ul style="list-style-type: none"> • Single sided 4.7GB (12cm (4³/₄ in.)) • Double sided 9.4GB (12cm (4³/₄ in.)) • Single sided 1.4GB (8cm (3¹/₄ in.)) • Double sided 2.8GB (8cm (3¹/₄ in.)) 	<p>Read carefully the section "On DVD-RAM discs" (page 7).</p> <p>When using an 8cm (3¹/₄ in.) DVD-RAM disc, Remove it from the cartridge. For details, refer to the instructions of the disc.</p>
DVD-R		<ul style="list-style-type: none"> • 4.7GB For General Ver.2.0 (12cm (4³/₄ in.)) 	<p>Read carefully the section "On DVD-R discs" (page 7).</p> <p>Depending on the disc or the recording equipment, playback of the disc may not be possible on this recorder.</p>
For playback only			
DVD video disc		<ul style="list-style-type: none"> • 12cm (4³/₄ in.) / 8cm (3¹/₄ in.) • Region number  or  • Color system: NTSC 	<p>The region number of this DVD recorder is 1. If region numbers, corresponding to a specific playable area, are printed on your DVD video disc and you do not find  or , disc playback will not be allowed by the recorder.</p>
VIDEO CD		<ul style="list-style-type: none"> • 12cm (4³/₄ in.) / 8cm (3¹/₄ in.) • Color system: NTSC • Version 1.0 and 2.0 	
Audio CD		<ul style="list-style-type: none"> • 12cm (4³/₄ in.) / 8cm (3¹/₄ in.) • 8cm (3¹/₄ in.) 	
CD-R		<ul style="list-style-type: none"> • 12cm (4³/₄ in.) • CD-DA (audio CD) format 	Depending on the disc, playback may not be possible.
CD-RW			

- This recorder uses the NTSC color system, and cannot play DVD video discs recorded in any other color system (PAL, SECAM, etc.), even if they have region marks  or .
- There may be some DVD discs designed for this market that cannot be played on this recorder. If you encounter please contact TOSHIBA customer service.
- An audio CD that has a copy-control function may not play on this recorder.



On DVD-RAM discs

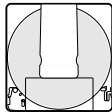
Use only DVD-RAM discs that comply with DVD-RAM standard Version 2.0

The recorder cannot record on a disc formatted in any other standard. When using such a disc, initialize it using the disc-format function of the recorder. The recorder may not record, dub, or edit some DVD-RAM discs, because they are edited/recorded with another manufacturer's equipment or PC, contain a large number of titles, or have little remaining capacity. Also, a DVD-RAM disc may not be edited or recorded if its title contains still pictures.

This recorder complies with current copyright protection technology and can copy a disc only when the disc permits copying once. When there is no indication on the disc, copying will not be allowed.

DVD-RAM discs with cartridges are recommended for recording.

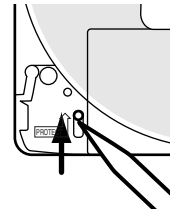
- Two types of DVD-RAM discs are available: ones with cartridges and ones without cartridges. You can use either of them with this recorder, but the former ones are recommended.
- In order to record highly detailed data, make sure the disc is clean. DVD-RAM discs with cartridges are easier to handle in this regard.
- Do not open the cartridge shutter. The disc may not play, or may not be recorded or edited once it becomes dirty.
- There are two types of DVD-RAM cartridges; removable and not removable. It is recommended you do not remove the disc even when you can. Refer to the instruction manual that comes with the disc if it is absolutely necessary to remove the disc.
- Some commercially available cartridge discs cannot be recorded or edited once the inside discs are removed.



To protect recorded contents

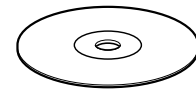
Slide the write-protect tab to "PROTECT" with something sharp. The disc can play, but cannot be edited or erased. Refer to the instructions that come with the disc.

- The resuming function (➡ page 31) will not work if the write-protect tab is set to "PROTECT".



When using a disc without a cartridge (commercially available discs)

- Discs without cartridges can easily attract fingerprints and dust, which is the reason they are not recommended. If you cannot avoid using them, handle with proper care.
- When you write in a title column on a disc, use a pen with a soft tip. Do not use a pen with a hard tip, such as a ballpoint pen.



Recommended discs

The following discs has been tested with this recorder:
9.4 GB double-sided type4 cartridge: Panasonic LM-AD240U
4.7 GB single-sided type4 cartridge: Panasonic LM-AB120U

On DVD-R discs

A 4.7 GB DVD-R disc can only be recorded from the HDD when the DVD-R compatible mode (➡ page 128) is set to on; you cannot record directly on the disc. Only blank discs that have never been recorded are usable. Once recorded, you cannot add or delete content. Make sure that the disc is clean, as the discs are not covered with cartridges. Images that restrict or prohibit copying cannot be recorded. And not all compatible DVD Video players can play DVD-R discs recorded with this recorder.

Recommended discs

The following discs have been tested with this recorder:
Panasonic LM-RF120 (4.7 GB/120 minutes)
Other DVD-R discs may not work well.

Select a disc that shows a statement on its package, such as "This disc can copy images that permit single copying."

Some functions such as Library may not work with PC discs.

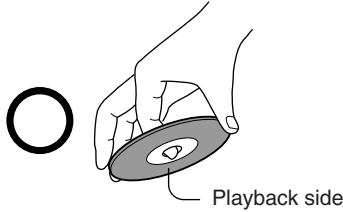
The company does not hold any responsibility to compensate the contents which should have been recorded, and any losses or damages (e.g. losses of business profit, or business intermission) that may arise from malfunction of this recorder (not recording/editing as intended).

Introduction

Compatible discs (Continued)

On handling discs

- Do not touch the playback side of the disc.

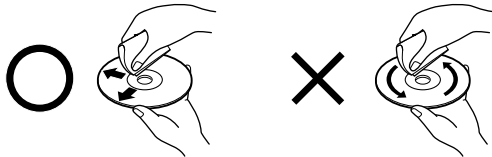


- Do not stick paper or tape to discs.



On cleaning discs

- Fingerprints and dust on the disc cause picture and sound deterioration. Wipe the disc from the center outwards with a soft cloth. Always keep the disc clean.



- If you cannot wipe off the dust with a soft cloth, wipe the disc lightly with a slightly moistened soft cloth and finish with a dry cloth.
- Do not use any type of solvent such as thinner, benzene, commercially available cleaners or antistatic spray for vinyl LPs. It may damage the disc.

On storing discs

- Do not store discs in a place subject to direct sunlight or near heat sources.
- Do not store discs in places subject to moisture and dust such as a bathroom or near a humidifier.
- Store discs vertically in a case. Stacking or placing objects on discs outside of their case may cause warping.

■ Marks on DVD video discs

The following are examples of marks and the meanings.

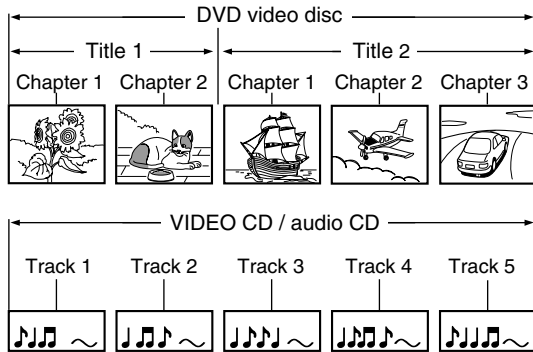
Mark	Meanings
	Number of audio streams recorded in the disc. (2 streams such as English and Japanese in this example.)
	Number of subtitle languages recorded in the disc. (2 subtitle languages are recorded in this example.)
	Number of camera angles recorded in the disc. (3 camera angles are recorded in this example.)
	Pictures are recorded in the standard picture size (4:3 aspect ratio).
	Pictures are recorded in the letter box picture size (4:3 aspect ratio with horizontal black bars in the top and bottom of pictures).
	Pictures are recorded in the 16:9 wide picture size. TVs with 4:3 aspect ratio will display them in the letter box style.
	Pictures are recorded in the 16:9 wide picture size. TVs with 4:3 aspect ratio will display them in the pan scan style (one or both sides of pictures are cut).
	Actual picture size may vary depending on the aspect ratio or mode selection of the TV.



Structure of disc contents

Normally, DVD video discs are divided into titles, and the titles are subdivided into chapters.

VIDEO CDs/audio CDs are divided into tracks.



Title: Divided contents of a DVD video disc. Roughly corresponds to a story title in short stories.

Chapter: Divided contents of a title. This corresponds to a chapter in a story.

Track: Divided contents of a VIDEO CD or an audio CD.

Each title, chapter, or track is assigned a number, which is called "title number", "chapter number", or "track number" respectively.

Some discs may not have these numbers.

When you record on the internal HDD or a DVD-RAM disc, one recording will always equal one title. You can divide a title into several chapters by marking borders in it to facilitate scene search.

You can also collect favorite scenes from the recorded titles/chapters, and rearrange them to create a Playlist (▶ page 104).

Introduction

Basic operations

Playback

Recording

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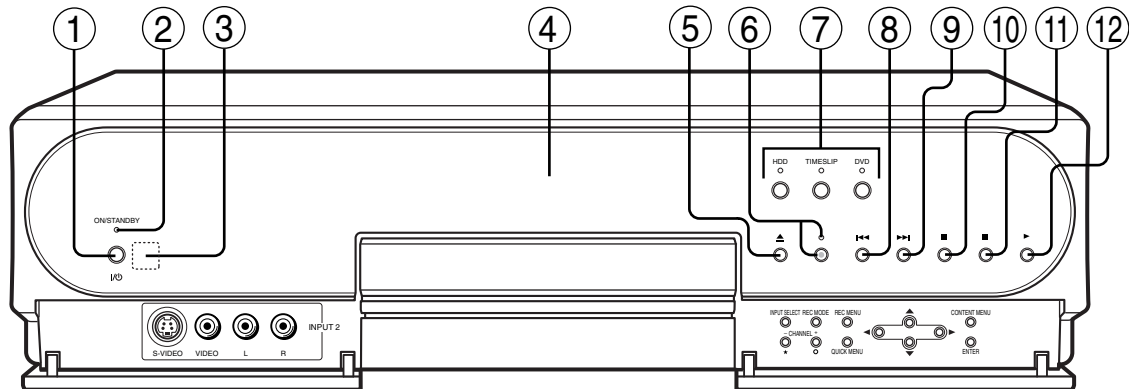
Function setup

Others

Index to Parts and Controls

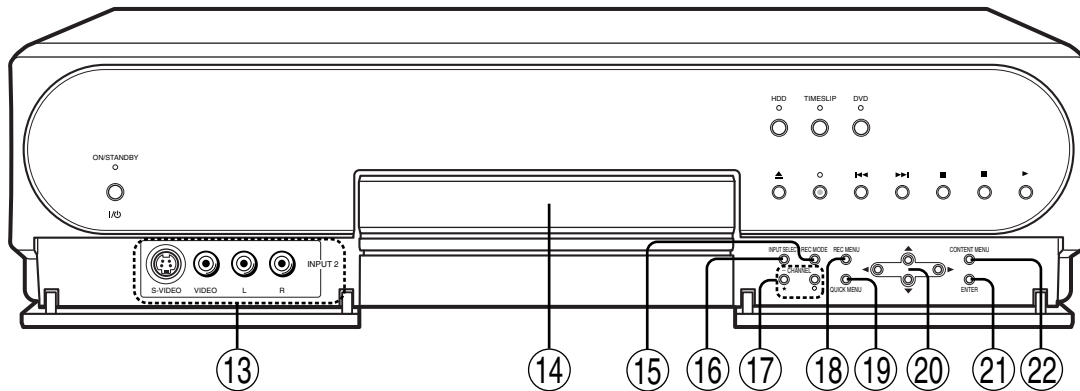
See pages with arrows for details.

Front panel



* The above illustration displays the front panel with the cover open. See the following page on how to open or close the cover.

- ① **ON/STANDBY button** ➔ pages 18, 19
Turns the power on/restores the unit in the standby mode.
- ② **ON/STANDBY indicator** ➔ page 18, 19
Displays the operational state of the recorder.
- ③ **Remote sensor** ➔ page 12 in "INSTALLATION GUIDE"
- ④ **Front panel display** ➔ page 16
- ⑤ **Open/Close (▲) button** ➔ page 18, 19
Opens and closes the disc tray.
- ⑥ **REC (●) button/indicator** ➔ page 69
Starts recording.
- ⑦ **Three mode button/indicator (HDD, TIMESLIP, DVD)** ➔ page 28, 30, 67
Selects recording/playback media.
- ⑧ **Skip (◀◀)/Fast reverse button** ➔ page 46, 47
Press briefly to skip, or press down for more than 1 second for fast reverse.
 - Skip : Plays the previous title, chapter, or track.
 - Fast reverse: Scans the picture backwards.
- ⑨ **Skip (▶▶)/Fast forward button** ➔ page 46, 47
Press briefly to skip, or press down for more than 1 second for fast forward.
 - Skip : Plays the next title, chapter, or track.
 - Fast forward: Scans the picture forward.
- ⑩ **Pause (||) button** ➔ page 28, 38
Stops playback or recording momentarily.
- ⑪ **Stop (■) button** ➔ page 28, 38
Stops playback or recording.
- ⑫ **Play (▶) button** ➔ page 28
Starts playback.

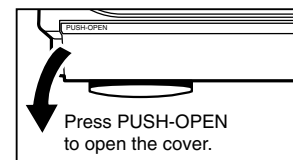


- ⑬ **INPUT 2 jacks** ➔ page 74
Use this when recording from other input source such as a VCR or a camcorder.
- ⑭ **Disc tray** ➔ page 18
Place a disc to play or record.
- ⑮ **REC MODE button** ➔ page 68
Changes the picture and sound quality settings.
- ⑯ **INPUT SELECT button** ➔ page 67, 74
Pressing repeatedly selects between various input sources.
- ⑰ **CHANNEL +/- buttons** ➔ page 18, 30, 68
- +/- : Selects the channel.
 - ★/○: Enters or cancels a command in the setup displays.
- ⑱ **REC MENU button** ➔ page 34
Displays the REC MENU.
- ⑲ **QUICK MENU button** ➔ page 41
Displays the Quick Menu.

- ⑳ **Directions buttons** ➔ page 30, 118
Moves the cursor to select an item.
- ㉑ **ENTER button** ➔ page 30, 118
Enters a command.
- ㉒ **CONTENT MENU button** ➔ page 30
Displays the CONTENT MENU.

■ To open or close the cover on the front panel

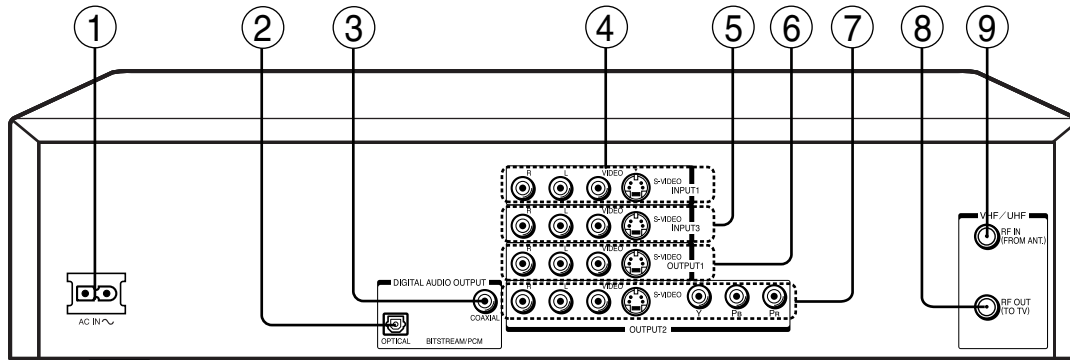
Open the cover by pressing in on PUSH-OPEN printed on the cover until it clicks.
Close the cover by lifting the cover to the original position and pressing in on PUSH-OPEN. When it clicks, the cover is closed.



Note

- Do not place a heavy object on the cover while it is open. Doing so may damage the recorder.

Rear Panel



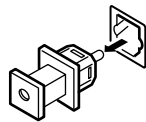
① **AC IN socket** ➔ page 15 in “INSTALLATION GUIDE”

Connects to the supplied power cord.

② **DIGITAL AUDIO OUT/OPTICAL jack** ➔ page 21, 22, 23 in “INSTALLATION GUIDE”

Use this to connect the recorder to an audio receiver equipped with an optical digital audio input jack.

When connecting the optical digital cable, remove the cap and fit the connector into the jack firmly. When not using the jack, keep the cap inserted to protect it from dust intrusion.



③ **DIGITAL AUDIO OUT/COAXIAL jack** ➔ page 21, 22, 23 in “INSTALLATION GUIDE”

Use this to connect the recorder to an audio receiver equipped with a coaxial digital audio input jack.

④ **INPUT 1 jacks** ➔ page 74

Use this to connect the recorder to output jacks of external devices such as another player or camcorder.

⑤ **INPUT 3 jacks** ➔ page 74

Use this to connect the recorder to the output jacks of external devices such as another player or camcorder.

⑥ **OUTPUT 1 jacks** ➔ page 15, 18 in “INSTALLATION GUIDE”

Outputs video and audio signals to a connected TV or amplifier.



⑦ **OUTPUT 2 jacks** ➡ page 19 in “INSTALLATION GUIDE”

Outputs video and audio signals to a connected TV or amplifier.

Y, PB, PR: connects to a TV equipped with component video jacks.

⑧ **VHF/UHF RF OUT (TO TV) output socket** ➡ page 14 in “INSTALLATION GUIDE”

Connects the supplied coaxial cable to a TV.

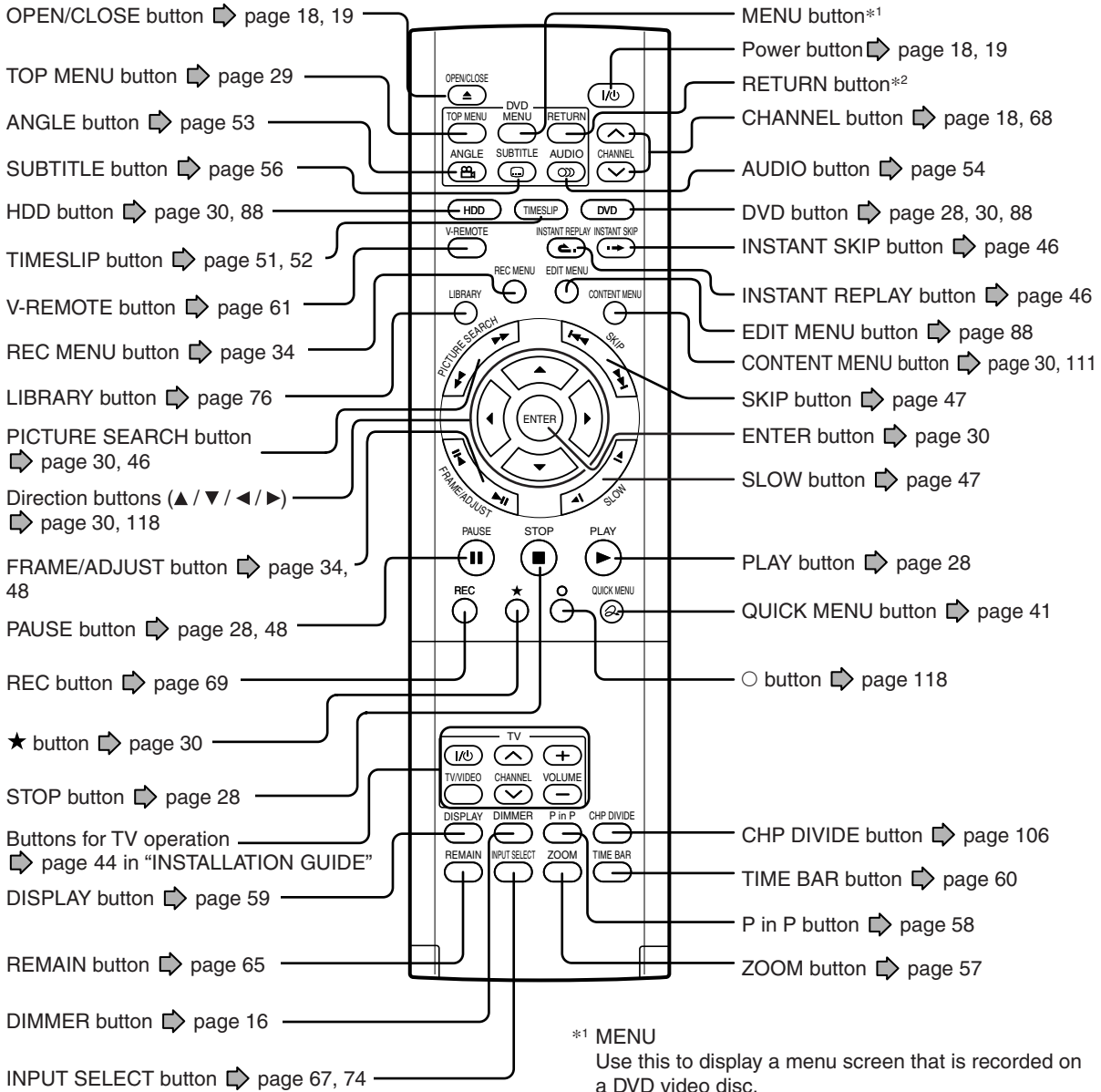
⑨ **VHF/UHF RF IN (FROM ANT.) input socket** ➡ page 14 in “INSTALLATION GUIDE”

Connects to an antenna or cable signal.

Introduction

Index to Parts and Controls (Continued)

Remote control

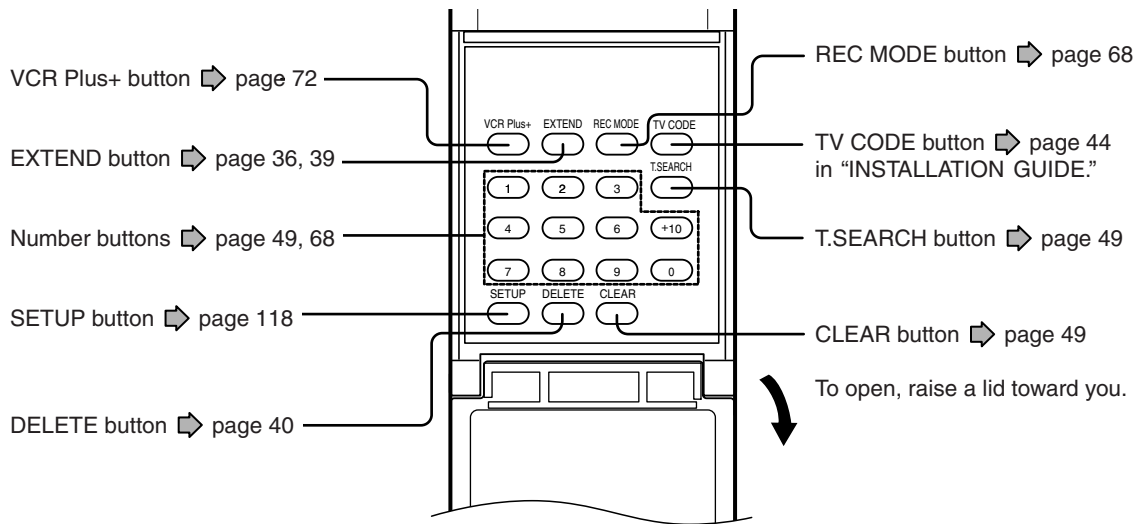


*1 MENU
Use this to display a menu screen that is recorded on a DVD video disc. Operate the menu screen as the same manner as "Locating a title using the top menu (➔ page 29)". A menu screen is not recorded on some discs.

*2 RETURN
Returns to the previous screen (the screen may be specified depending on the disc). Refer to the instructions of the disc.

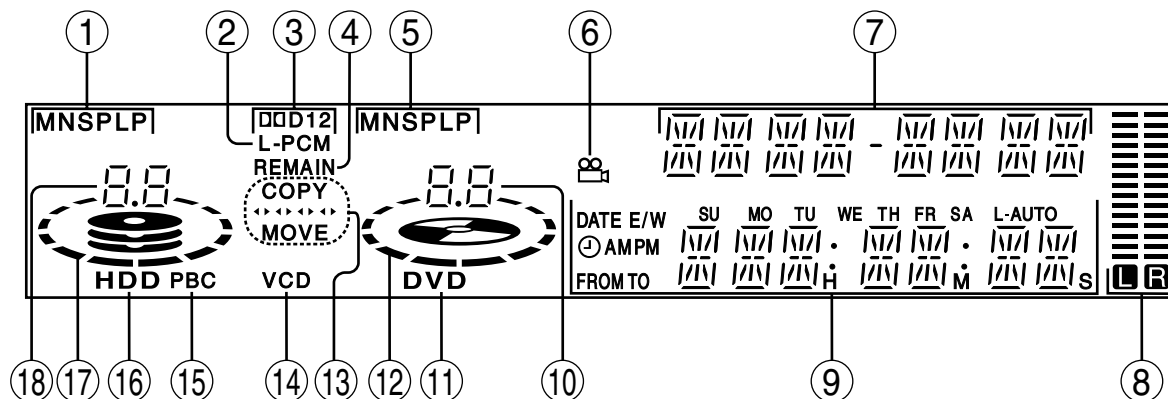


Under the lid



To open the lid, hold the upper sides to pull up.

Display



■ Pressing the DIMMER button on the remote control changes the brightness of the display (normal/dimmed/off).

- ① **Picture quality mode indicator (HDD)** ➡ (page 128)
The current picture quality mode lights up.
The modes are: MN (Manual)/SP (Standard Play)/LP (Long Play)
- ② **L-PCM indicator (Linear PCM)** ➡ (page 128)
Illuminates when playing back contents recorded on the HDD or DVD-RAM disc, and the selected audio mode is linear PCM.
- ③ **Audio format indicator** ➡ (page 128)
The audio format (Dolby Digital 1,2) selected illuminates when playing back the HDD or DVD-RAM disc.
- ④ **Remain icon** ➡ (page 65)
Illuminates during remain mode.
- ⑤ **Picture quality mode (DVD-RAM)** ➡ (page 128)
The current picture quality mode is illuminated.
The modes are: MN (Manual)/SP (Standard Play)/LP (Long Play)
- ⑥ **Angle icon** ➡ (page 53)
Illuminates when playing a scene recorded with multi angles.
- ⑦ **Multi display** ➡ (page 74)
Title (chapter or track) number, message, channel, output, or audio/bilingual sound mode appear.
- ⑧ **Analog output level indicator**
Displays the analog output level.
L+R: Stereo and bilingual (left (main) channel and right (sub) channel)
L: Left (main) channel
R: Right (sub) channel
Off: Mono
Level indicator may not show exact sound level. It only shows the average level.
- ⑨ **Time indicator**
Displays current time, playing time, remaining time, starting time of recording and so on.
- ⑩ **DVD bit rate value indicator** ➡ (page 128)
Displays the bit rate value during recording. During playback, it shows the actual bit rate value.



- ⑪ **DVD indicator**
Illuminates when a DVD-RAM, DVD video or DVD-R disc is selected, or when the disc tray is empty.
- ⑫ **DVD media indicator**
Indicates playback or recording condition when a DVD-RAM, DVD-R, VIDEO CD or audio CD is chosen as media.
- ⑬ **HDD-DVD Moving/Copy direction**
Indicates moving/copy direction of HDD or DVD.
- ⑭ **VCD/CD indicator**
Illuminates when playing a VIDEO CD or an audio CD.
- ⑮ **PBC indicator**
Illuminates when PBC function is "On" (➡ page 127) and a PBC-controllable VIDEO CD is loaded.
- ⑯ **HDD indicator**
Illuminates to indicate status of HDD.
- ⑰ **HDD media indicator**
Indicates playback or recording condition when the HDD is chosen as media.
- ⑱ **HDD bit rate value indicator** ➡ (page 128)
Displays the bit rate value selected for recording. During playback, displays the actual bit rate value.

Before operating this recorder

■ Is your recorder ready?

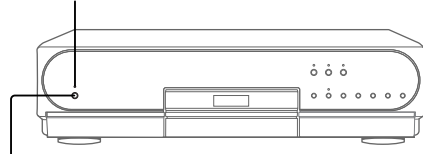
Refer to the supplied "INSTALLATION GUIDE" manual and finish the necessary preparations.

■ Turning the power on

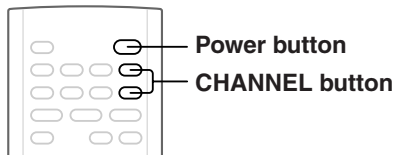
(This owner's manual instructions are based on the assumption that all proper connections have been completed and the TV is turned on.)

Press the ON/STANDBY button on the front panel of the recorder or the power button on the remote control.

ON/STANDBY indicator



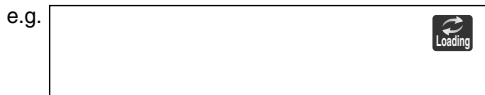
ON/STANDBY button



Power button

CHANNEL button

When the power turns on, the ON/STANDBY indicator changes from red (standby mode) to green (operation). After a few seconds, a start-up screen appears. The following icon appears at the top right corner of the screen.



When this icon disappears, the recorder is ready to operate. If the DVD-RAM drive contains a disc, it takes a little longer to start up.

■ Viewing TV channels through this recorder

After turning the power on, the recorder will output TV channel signals to the connected TV (also in the stop mode).

You can select a desired channel by pressing the CHANNEL buttons.

■ Loading a disc

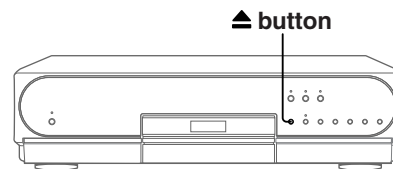
Check disc compatibility beforehand (page 6) and use a proper playable disc.

Caution

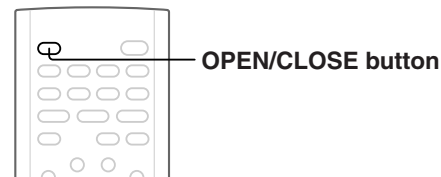
- Keep your fingers well clear of the disc tray. Neglecting this may cause serious personal injury. Keep a close watch on children.
- Do not use a cracked, deformed, or repaired disc.

1 Open the disc tray.

Press the  button on the front panel or the OPEN/CLOSE button on the remote control.



 button



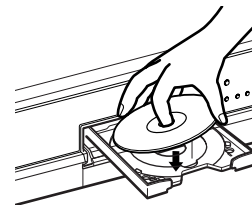
OPEN/CLOSE button

2 Insert a disc.

Disc without a cartridge

Insert with the playback side down.

Disc size varies depending on the disc. Place a disc to fit the guide. If a disc is out of the guide, it may result in damage to the disc or malfunction.



12cm (4³/₄ in.) disc:

Set a disc so that the 2 stoppers in the opening side can hold the rim. Do not cover them.

8cm (3¹/₄ in.) disc:

Place a disc in the inside hollow.



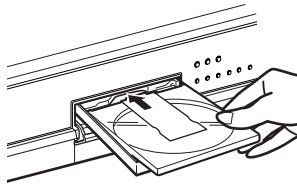
TYPE1/TYPE2 DVD-RAM disc with cartridge

Single sided

Turn the printed side up, and insert the cartridge into the tray frame following the direction of the arrow on the cartridge.

Double sided

Turn a desired recording/playback side up, and insert the cartridge into the tray frame following the direction of the arrow on the cartridge.



3 Close the disc tray.

Press the  button on the front panel or the OPEN/CLOSE button on the remote control.

Notes


- Use the button on the front panel or the remote control to open and close the disc tray. Do not push or hold the disc tray while it is moving. Doing so may cause the recorder to malfunction.
- Do not insert a disc which is unplayable, or any object other than a playable disc.
- Do not apply downforce to the disc tray. Doing so may cause the recorder to malfunction.

■ Turning the power off

Press the ON/STANDBY button on the front panel of the recorder or the power button on the remote control.

The "Unloading" icon appears at the top right corner of the screen, and the ON/STANDBY indicator turns red, then the power turns off.

Caution

- If the power fails or the power cord is disconnected from a wall outlet while the recorder is in operation (ON/STANDBY indicator lit in green), the HDD or a DVD-RAM disc may become recording disabled on. In such a case, executing an initialization of the disc using the formatting function of the recorder may refresh them. However, all contents stored on the disc will be completely erased by this initialization process.
- This recorder may indicate alert messages with some discs right after insertion. If such a disc is used for playback or recording on other equipment, all data in the disc may be damaged and the disc will not be played. By executing an initialization of the disc using the formatting function of the recorder, the disc will be able to work.
- If the recorder freezes and does not respond at all, leave it alone for about 15 minutes or longer. This may restore the recorder. After the recorder has recovered, turn it off once and turn it on again to use as usual. If the recorder is still inoperable after more than 15 minutes have passed, press and hold the ON/STANDBY button on the front panel for about 10 seconds or longer. The recorder is forced to quit and the power turns off. Turn the recorder on again and use it as usual. (This 15-minute measure is available only when "Screen Protector" is set to "On." ( page 125)) Important: This is an emergency measure, which may cause losses and/or damages of data. Avoid casual use of this measure. If you try this while the recorder is working properly, especially while the "Loading" or "Unloading" icon is flashing, it may result in initializing of the HDD.

Note

- If there are any performance malfunctions of the HDD or the DVD-RAM drive, immediately discontinue use of this recorder, and disconnect the power cord from a wall outlet, then contact your dealer. Continuous use of the recorder in such a condition will aggravate the condition and result in increased cost and cord repair time.

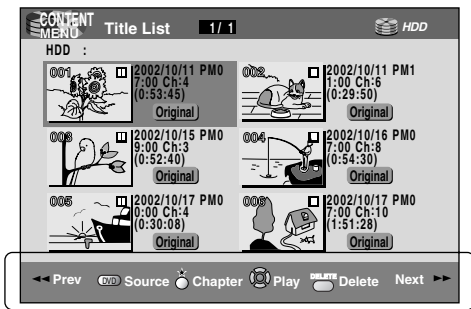
Introduction

Before operating this recorder (Continued)

■ Using the GUI (Graphical User Interface)

The recorder provides you with a variety of GUI (Graphical User Interface) to assist your operation of most functions such as customizing of setting, playback or recording.

Refer to the operation guide on the bottom on each GUI. This will indicate proper button selection for desired action.



Operation guide

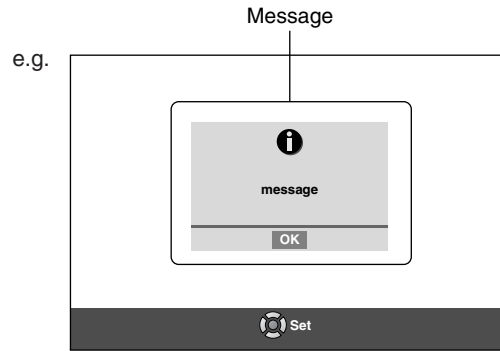
Example of the icon

Function

	Direction buttons	To select an item.
	ENTER button	To confirm (register) a selected item or setting.
	DVD button	To switch the modes.
	★ button	To change the category of contents
	PICTURE SEARCH ◀◀ button	To return to the previous page.
	PICTURE SEARCH ▶▶ button	To proceed to the next page.
	FRAME/ADJUST button	To enter numerical digits or change the value
	Number buttons (Open the lid of the remote control.)	To enter numerical digits.
	EDIT button	To display/exit the EDIT MENU.
	SETUP button (Open the lid of the remote control.)	To display/exit the Setting menu.

■ If a message appears

The recorder will display messages related to operational status. Respond accordingly, as below:



e.g. Select either response (by highlighting in green) using the ◀/▶ buttons, then press the ENTER button. The message disappears. Buttons other than the direction buttons and the ENTER button do not function while a message is displayed.

2 selections

e.g. Read the message, then press the ENTER button. The message disappears. Buttons other than the ENTER button do not function while a message is displayed.

1 selection

e.g. The message disappears automatically in a few seconds.

No selection



■ Start-up/Shutdown (closing) icons

These icons are displayed at the top right corner of the screen when startup or finishing. While they are flashing, the recorder is operating as follows:



Start-up, reading a disc, finishing the recording



unloading a disc, finishing the operation



Opening a disc tray



Closing a disc tray

■ System software update service

Because of problems and errors that can occur during the creation of DVD software and/or the manufacture of DVD discs, Toshiba America Consumer Products cannot guarantee that this recorder will play every feature of every DVD bearing the DVD logo. As one of the creators of DVD technology, Toshiba DVD recorders are manufactured to the highest standards of quality and, as a result, such incompatibilities are very rare. If you have any questions, or if you happen to experience any difficulty playing a DVD on a Toshiba DVD recorder, please feel free to call our Customer Service Hotline at 1-XXX-XXX-XXXX.

Introduction

Basic operations

Playback

Recording

Dubbing

Editing

Function setup

Others

Introduction

Before operating this recorder (Continued)

Initializing a DVD-RAM disc (Logical Format)

Be sure to read this section prior to using a DVD-RAM disc on this recorder for the first time. For DVD-R, initializing is not necessary.

A disc should be initialized in the following cases: (The recorder may display a message to request you to do so.)

e.g.

- When you use a DVD-RAM disc on this recorder for the first time.
- If data fragments produced by repeated recording or erasing have accumulated.
- If a disc error has occurred.
- When you want to record on a DVD-RAM disc for PC. (➡ page 7)

Initializing formats a disc logically and insures that it will perform to its full capability. However, this erases all data on the disc, so make sure that it does not matter if data on the disc is erased whenever you initialize a disc.

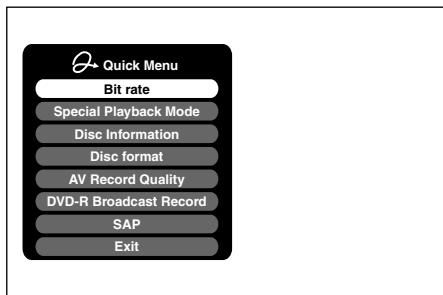
How to initialize a disc

To initialize a DVD-RAM disc, load it in the recorder. See ➡ page 18 for loading a disc.

1) During stop, press the QUICK MENU button.

The following menu appears. (The actual contents depends on the operational status of the recorder.)

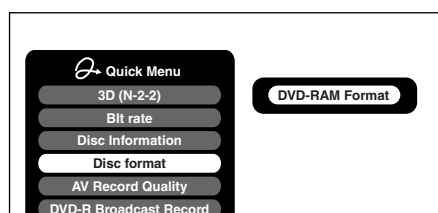
e.g.



2) Press the ▲ / ▼ buttons to select “Disc format,” then press the ENTER button.

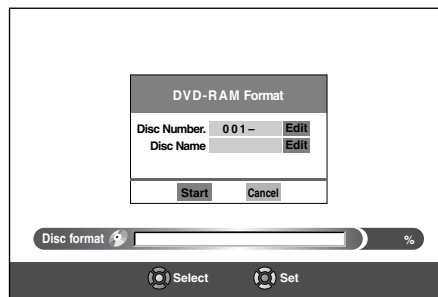
A sub menu appears on the right side.

e.g.



3) Press the ENTER button.

e.g.



Numbering a disc

The recorder automatically numbers discs when initializing. However, you assign a desired number (using 3 digits) and designate sides A and B on a double-sided disc.

- (1) Press the ▲ / ▼ buttons to select “Edit” of “Disc Number” then press the ENTER button.
- (2) Press the ▲ / ▼ buttons to select a digit.
- (3) Press the ◀ / ▶ buttons to shift.
- (4) Repeat steps (2) and (3).
- (5) Press the ENTER button.

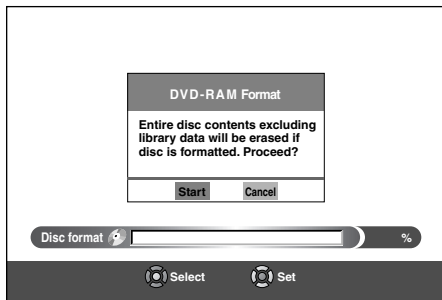
Naming a disc

You can name a disc.

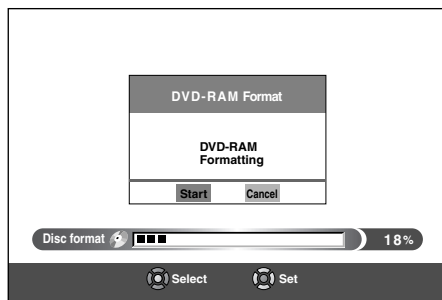
- (1) Press the ▲ / ▼ buttons to select “Edit” of “Disc Name,” then press the ENTER button. The character input window appears.
- (2) Enter a disc name following the procedure of “Entering characters” (➡ page 24).
- (3) Press the ★ button to eliminate the window.



- 4) Press the ◀/▶ buttons to select “Start,” then press the ENTER button.



- 5) Press the ◀/▶ buttons to select “Start,” then press the ENTER button. Initialization starts.



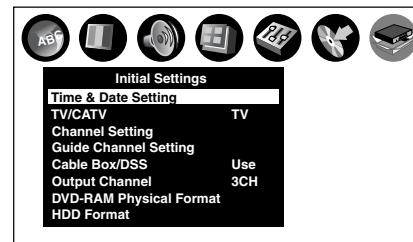
When initialization is completed, the setup window disappears.

DVD-RAM Physical Format

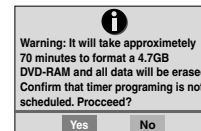
Physical formatting is a simple execution for a disc which cannot be used or read (or which is becoming hard to read). It may refresh such a disc for recording and playback. (There is no guarantee that all such discs will be recovered.)

“DVD-RAM logical format” process only rewrites certain data on file system and management information, however, “DVD-RAM physical format” rewrites all data on a disc, therefore it takes a much longer time to complete. For a 4.7GB single sided DVD-RAM, about 70 minutes will be necessary. While processing, all recorder operations and functions including program recording or automatic recording of an external source will not work until the process is finished. Also this process erases all data stored on the disc.

- 1) During pause, press the SETUP button.
2) Press the ▲/▼ buttons to select “Initial Settings” then press the ENTER button.



- 3) Press the ▲/▼ buttons to select “DVD-RAM Physical Format,” then press the ENTER button.
4) Press the ◀/▶ buttons to select “Yes,” then press the ENTER button to execute.



To cancel, select “No”, then press the ENTER button.

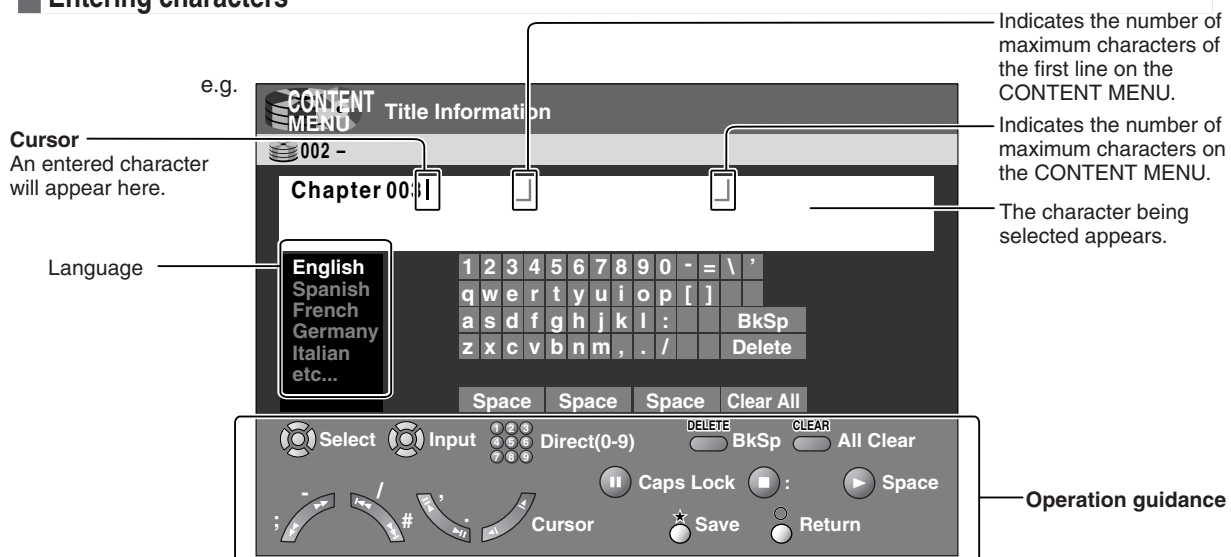
Notes

- The physical format process may fail if executed to a dirty DVD-RAM disc. Also, the disc may be difficult to record, even if it finished. Before executing DVD-RAM physical format process, be sure to confirm the disc is not dirty. Clean it if necessary.
- The following DVD-RAM discs require physical formatting:
 - A disc which is not formatted correctly.
 - The disc which has errors during writing because of dirt on the disc, and cannot be further recorded, or cannot initialize normally.
- You need to start physical formatting from the first step again when you use a failed disc.
- Physical formatting does not work if the disc contains a lot of void beyond limitation of this recorder.
- If an error occurs in physical formatting, “F--ERROR” appears in the front panel display. To turn off the message, press the DISPLAY button.

Introduction










Before operating this recorder (Continued)

Entering characters



■ Operation guidance of the remote control

To enter the character, normally use the direction ▲/▼/◀/▶ buttons on the remote. About the other buttons to be used are shown on the operation guidance.

-  : Shifts a cursor.
-  : Enters the number.
-  : Erases one character immediately to the left side of the cursor.
-  : Erases all the characters on the input column.
-  : Caps Lock
-  : Preserves the characters on the input column and returns to the previous screen.
-  : Cancels the characters on the input column and returns to the previous screen.
-  : Enters a space.
-  : Enters a symbol.

■ Switching a language

Before entering a character, move a cursor to the language selection area by pressing the ◀/▶ buttons. Then press the ▲/▼ buttons to select a language, then press the ENTER button.



■ Entering characters

The cursor may be followed by unwanted characters.
You can erase them if necessary by either of the following measures:

Erasing characters

- Erasing all the characters on the writing board
Select "Clear All" by pressing the ▲ / ▼ / ◀ / ▶ buttons, then press the ENTER button.
Alternatively, open the lid of the remote control and press the CLEAR button.
- Erasing one character before the cursor
Select "BkSp" by pressing the ▲ / ▼ / ◀ / ▶ buttons, then press the ENTER button.
Alternatively, open the lid of the remote control and press the DELETE button.

- (1) Press the **||** button to select an input mode.
- (2) Press the ▲ / ▼ / ◀ / ▶ buttons to select a character, then press the ENTER button.
The selected character is input on the cursor.
- (3) Repeat steps 1 and 2 to enter characters.
- (4) When finished, press **★** to save the characters.
The characters you entered appears.

Notes

- You can enter up to 64 characters.
- When unnecessary information appears, or when you want to alter the input character, press the CLEAR button to erase all, or press the DELETE button to erase an unnecessary character.





Basic Operations

Record a TV program and play it back.

- Playing a DVD video disc
- Playing recorded contents (CONTENT MENU)
- Tips on playback
- Programing a recording (REC MENU)
- Tips on recording
- Quick menu operation

Hint on reading this manual

The following icons show the playable discs for each function described on this instruction manual.

HDD : HDD

DVD-RAM : DVD-RAM disc

DVD-VIDEO : DVD video disc

VCD : VIDEO CD

CD : Audio CD

Most instructions are based on remote control operation, unless otherwise noted. You can use the buttons on the remote control and those on the main unit as well when they have the same function.

Basic operations

DVD-VIDEO VCD CD

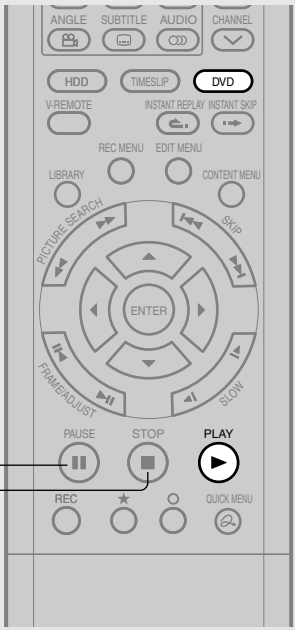
Playing a DVD video disc

You can also play VIDEO CDs, audio CDs or DVD-R discs in the same manner.

To play recorded contents on the HDD or a DVD-RAM disc, follow the instructions on [page 30](#).

■ Preparation

- Turn on a TV or audio system and select the corresponding input source that the recorder is connected to.
- Load a disc you want to play. ([page 18](#).)



1 Press DVD.

The DVD indicator on the front panel illuminates. This status indicates that the recorder is ready to play a disc in the disc tray (DVD mode).

2 Press PLAY.

Playback starts.

- Depending on the disc, playback starts automatically by selecting the DVD mode.
- The recorder may take a short time to start playback. This occurs because the recorder is reading the data of a disc.

STOP
PAUSE

■ To stop playback

Press the STOP button.



■ To pause playback (still playback)

Press the PAUSE button.



To resume normal playback, press the PLAY button or the PAUSE button.

Note

Sound is muted during still mode.

Note

DVD video disc provides high resolution pictures and a lot of information. Because of this, you may notice some fine picture noises on TV screen, which you have never seen with regular broadcast TV program. While the amount of noise depends on the TV you use with the recorder, you should generally reduce the sharpness adjustment on your TV when viewing DVD video discs.



■ Resuming playback from the location last stopped (Resume Play)

DVD-VIDEO VCD CD

You can resume playback from the location where you stopped.

If you press the PLAY button after stopping playback, playback resumes from the location you have stopped.

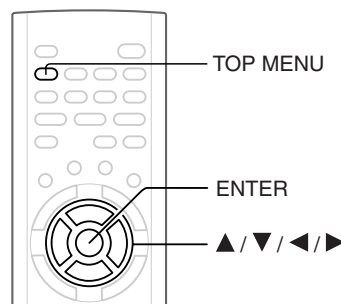
If you stop playback by pressing the STOP button twice, the resume playback feature will be cancelled.

Notes

- Resume feature cannot function when:
 - you select a disc menu language (➡ page 121) or change the parental lock setting (➡ page 126).
 - you play a PBC-featured VIDEO CD while “PBC” (➡ page 127) is set to “On”.
 - you open the disc tray.
- There may be a difference in the location where playback resumes depending on the disc.
- While the recorder retains a location in memory, initial setting changes with GUI may function only after the memory is cleared.

Locating a title using the top menu DVD-VIDEO

Some DVD video discs may include a top menu, on which you can view the structure of contents or select a scene. Most of the top menus automatically appear in certain scenes, and also are displayed on demand. Actual operation of the top menu depends on the disc. This section explains a general example of how to operate a top menu. Also refer to the instructions of the disc itself.



- 1) Press the TOP MENU button.**
The top menu appears on the TV screen.
- 2) Press the ▲/▼/◀/▶ buttons to select the title you want.**
If the titles in the top menu are assigned a number, you can directly locate a specific title by pressing its designated number with the number buttons.
- 3) Press the ENTER button.**
Playback starts from chapter 1 of the selected title.

Notes

- The instructions above describe basic procedures which may vary depending on the contents of the DVD video disc. If different instructions appear on the TV screen, follow those instructions.
- If you display the top menu during playback and press the TOP MENU button again without selecting any title, the recorder may resume playback from the point where you first pressed the TOP MENU button. (depending on the actual DVD video disc.)
- This method of locating a title is available only on a disc that contains a top menu.
- Instruction notes of discs may refer to the button that displays the top menu as the TITLE button.
- During playback of a DVD video disc, VIDEO CD, or audio CD, you cannot display thumbnails of contents even if you press the CONTENT MENU button (➡ page 30).

Introduction

Basic operations

Playback

Recording

Dubbing

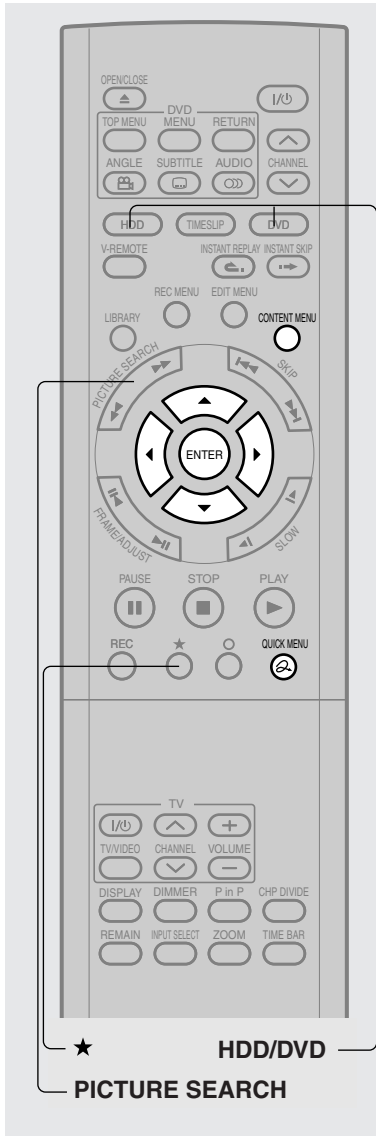
Editing

Function setup

Others


Playing recorded contents (CONTENT MENU)

Titles and chapters recorded on an HDD or a DVD-RAM disc are displayed in thumbnail view, so that you can easily locate a desired one.



1 During stop or playback, press CONTENT MENU.

The following CONTENT MENU (Title List) appears.

e.g. 

Attribution (original/playlist) → page 104.

You can switch between HDD and DVD-RAM by pressing the HDD or DVD button.

2 Press ▲/▼/◀/▶ to select a title (chapter).

You can view succeeding or prior pages by pressing the PICTURE SEARCH (◀◀/▶▶) button.

To select a chapter, select a title and press the ★ button.

The Chapter List appears.

By pressing the ★ button again, you can return to the Title List.

3 Press ENTER.

Playback starts from a selected title (chapter).

Notes

- To turn off the CONTENT MENU, press the CONTENT MENU button.
- The mark **||** is displayed in each thumbnail when "HDD/RAM Title Play" (▶ page 129) is set to "Title Resume". If you select a title (chapter) marked **||**, playback starts from the location where you last stopped.
- You can change a thumbnail picture of a title in a built-in HDD or a DVD-RAM. See ▶ page 115. (You cannot change a thumbnail picture of a chapter.)
- If you load a disc while playing contents of the HDD, playback stops. To resume, press the PLAY button.



■ Resuming playback from the location last stopped (Title Resume)

The recorder memorizes the location you last stopped playback to resume there.

To use this function, set "HDD/RAM Title Play" (➡ page 129) to "Title Resume." The recorder will memorize the location you last stopped at in each title, so you can resume playback there. For example, if there are 6 titles, you can start each of them as if you had stored 6 video tapes in the recorder.

- **To return to the beginning of the title**

During playback, press the QUICK MENU button, then press the ▲ / ▼ buttons to select "Restart Title," then press the ENTER button.

- **To play another title**

Press the CONTENT MENU button to display "CONTENT MENU Title List," then select a title.

You can make the recorder memorize only the very last point, regardless of the number of titles. Set "HDD/RAM Title Play" (➡ page 129) to "Serial Playback."

- **To return to the beginning of the title**

Press the SKIP (⏮) button.

- **To play the other title**

Press the SKIP (⏮ / ⏭) button repeatedly.

Notes

- Depending on the status or the contents, playback may not start from the location last stopped, and instead another location, for example, from the beginning of the disc or title.
- Depending on the disc, there may be a slight difference between the location the recorder memorized and the actual location where playback starts.

■ Playing all titles (original/playlist) in a disc

Set "HDD/RAM Title Play" (➡ page 129) to "Serial Playback". You can play all titles in the HDD or in a DVD-RAM disc in the order of the thumbnails on the CONTENT MENU, as if they are recorded in one video tape.

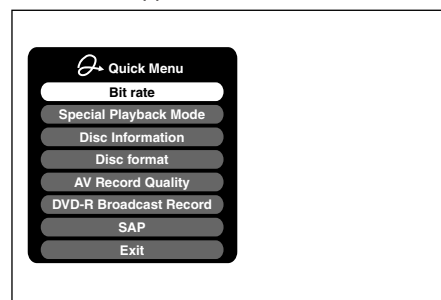
■ Playing all titles (original) in a disc (All ORG Title Play)

You can play all original titles in the HDD or in a DVD-RAM disc in the order of the thumbnails on the CONTENT MENU, as if they are recorded in one video tape.

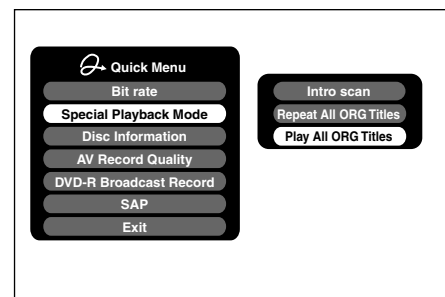
1) During stop, press the QUICK MENU button.

The Quick Menu appears.

e.g.,



2) Press the ▲ / ▼ buttons to select "Special Playback Mode", then press ENTER.



3) Press the ▲ / ▼ buttons to select "Play All ORG Titles"

4) Press the ENTER button.

Playback starts from the beginning of title 1.

Notes

- To stop All ORG Title Play, press the STOP button twice. (However, doing this when you are playing a title recorded in the HDD while recording on the HDD (➡ page 39) will stop the recording.) Alternatively, press the QUICK MENU button to display the quick menu, and press the ▲ / ▼ buttons to select "Quit All ORG Title Play" and press the ENTER button.
- When the last title is complete, All ORG Title Play stops.
- If you select "Repeat All ORG Titles" at step 2, All ORG Title Play repeats.
- A location where you last stopped All ORG Title Play is memorized. Playback will resume from there.

Basic operations

Playing recorded contents (CONTENT MENU) (Continued)

■ Checking the background information on a selected title (chapter)



1) At step 2 on  page 30, select a title (chapter) then press the QUICK MENU button.

The Quick Menu appears.

2) Press the ▲ / ▼ buttons to select "Title Information," then press the ENTER button.

Detailed information of a selected title (chapter) appears.

Notes

- While the title list is displayed, you can select "Edit Title Name" or "Genre." While the chapter list is displayed, you can select "Edit Chapter Name" or "Del Chapter Name." (If the title was recorded from the connected equipment, you can select "Recording Date & Time" also. If you press the ▲ / ▼ / ◀ / ▶ buttons to access them and input characters, you can use Library function ( page 76) more easily. When you select "Lock," you can protect recorded contents ( page 40).
- By pressing the O button, you can return to the previous display.
- To exit these steps, press the CONTENT MENU button.

■ Viewing the first scenes of titles (original) (Intro Scan)

1) After step 1 on  page 30, press the QUICK MENU button.

The Quick Menu appears.

2) Press the ▲ / ▼ buttons to select "Intro Scan", then press the ENTER button.

The recorder plays the first 5 seconds of each title beginning from title 1.

You can go forward or back by pressing the SKIP buttons.

▶▶ : to go to the next title

◀◀ : to go back to the current title

Press twice to go back to the previous title.

3) When you find a desired title, press the ENTER button.

The selected title is played.

Note

- To stop Intro Scan, press the STOP button twice.

Tips on playback

During playback, you can do the following:

Switch playback to another disc

Press the STOP button to stop playback. Then press the HDD or DVD button to select a disc you want to play.

Switch the picture to view TV broadcasts

Press the STOP button to stop playback.

Start recording

Press the STOP button to stop playback. Then press the HDD or DVD button to select a disc on which you want to record, and press the REC button to start recording.

Screen Protection

If you pause playback or display a menu and leave it still for about 15 minutes, the recorder switches the output picture source to a TV broadcast or connected equipment.

A still picture may be displayed after all titles are played. In this case, the screen protection activates after about 10 seconds.

Note

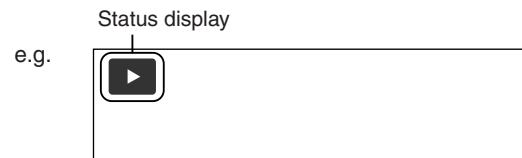
- While the TIMESLIP indicator on the front panel illuminates, this function does not work.

Notes
















- Do not move the recorder during playback. It may damage the disc.
- Occasionally the picture may stop at the last scene, or the main menu may appear after playing. If you display a still picture such as the main menu on the TV screen for a prolonged period, the TV may be damaged (raster burn). To prevent this, press the STOP button to stop playback.

Status display

Each time you operate the recorder, the following marks appear on the TV screen to indicate the status of the recorder.



Main marks
(Depending on the disc, some of these may not appear.)

-  : Playback
-  : Pause
-  : Stop
-  : Fast-forward
-  : Fast-reverse
-  : Forward skip*
-  : Reverse skip*
-  : Forward slow-motion
-  : Reverse slow-motion
-  : Forward frame by frame playback
-  : Reverse frame by frame playback
-  : Recording
-  : Recording pause
-  : When title playback is completed
-  : Instant skip
-  : Instant replay
-  : Chapter division

* Accompanied with a title number and a chapter number (a track number for VIDEO CD or audio CD).

Notes

- To disable the status display, set "On Screen Display" (▶ page 125) to "Off."
- You can add the current status of the settings to this display. See ▶ page 59.

Introduction

Basic operations

Playback

Recording

Dubbing

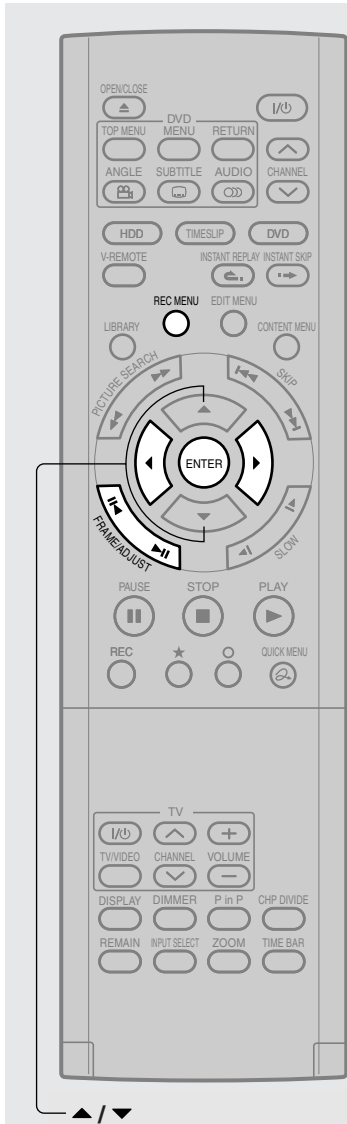
Editing

Function setup

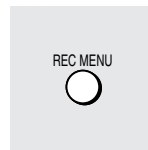
Others

Programming a recording (REC MENU)

Use the REC MENU to program a recording. It will take less time to prepare, as it provides all necessary information for recording, including estimated disc space remaining. It will also be convenient when you program the same contents on TV broadcasting for collection.
For more information, see “Before Recording” (➡ page 64).



1 During stop, press REC MENU.



The REC MENU appears.

e.g.

CH	Date	Start	End	Media	Mode	Rate	Audio
---	----	AM --:-- AM --:--		HDD	LP	2.0	DQD2

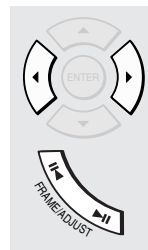
2 Press ENTER.



“CH” is ready for setting.

CH	Date	Start	End	Media	Mode	Rate	Audio
---	----	PM --:-- PM --:--		HDD	LP	2.0	DQD2

3 Select an item by pressing ◀/▶, then press ADJUST (⏮/⏭) to set the item.



- Refer to the setting items on the next page.
- You can also set the item by pressing the ▲/▼ button.

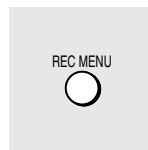
CH	Date	Start	End	Media	Mode	Rate	Audio
L1	----	PM --:-- PM --:--		HDD	LP	2.0	DQD2

4 When complete, press ENTER.



To program another recording, press the ▶ button to move to the top of the next line, then repeat steps 2 to 4.

5 Press REC MENU to exit.



Your program is entered.

- If you want to turn off the power, press the power button.



Setting items

* If you set summer time on the clock of the recorder, see the notes on page 31 in the "INSTALLATION GUIDE"

** See page 136 for details

CH	1-125, L1-L3	Select a channel you want to record.
Date	Every Sunday to Saturday, Monday to Thursday, Monday to Friday, Monday to Saturday, everyday.	Select a date of a TV program you want to record.
Start*		Enter a starting time of recording. (Set the timer to begin recording no sooner than 5 minutes past the current time. An initial setting is 10 minutes later.) You can also use the number buttons under the cover.
End*		Enter an end time. (Set the timer to begin recording no sooner than 5 minutes past the current time recording must not exceed 9 hours.) You can also use the number buttons under the cover.
Media	DVD	When you record on a DVD-RAM disc.
	HDD	When you record on an HDD.
	AB	When you use A + B (double-side) recording. (page 70)
Mode (Picture Quality)	SP	Standard setting of recording time and picture quality. (Not applicable when "L-PCM" is selected.)
	LP	For longer recording, but inferior to "SP" in picture quality. (Not applicable when "L-PCM" is selected.)
	Manual	Customized setting of rate (bit rate).
	Auto	To set a rate automatically according to the remaining volume of the disc. (If the disc does not have room for the TV program, the program cannot be recorded to the end.) When you select an HDD, the recorder records for a length of time corresponding to that of a blank DVD-RAM disc (4.7GB). Not applicable to a recording for 2.5 hours or longer.
Rate (Bit Rate)	1.4, 2.0-9.2	Not applicable when "SP", "LP" or "Auto" is selected. You can set a rate at intervals of 0.2Mbps from 2.0 to 9.2. (The upper limit of the value depends on the "Sound Quality" setting.)
Audio	<input type="checkbox"/> <input type="checkbox"/> D1**	Standard setting.
	<input type="checkbox"/> <input type="checkbox"/> D2**	Superior to <input type="checkbox"/> <input type="checkbox"/> D1.
	L-PCM	Best sound quality. Recommended for recording uncompressed original digital audio. High data rate of L-PCM may result in shorter program length.

Notes

- See page 66 for details on "Mode", "Rate", and "Audio".
- Other recording procedures are also available. See page 67.
- When you set the bit rate below about 4.0 Mbps, playback of some speed may not work correctly. There will be noise, and the picture quality is lower than other rate settings.

Suggestions for the picture quality setting

- **For normal recording or when you cannot decide which mode to choose.**
Select "SP"
- **When you do not have to preserve the recorded content longer.**
Select "LP." Inferior to "SP" in picture quality, but it can record longer.
- **To record a high picture quality**
Select "Manual" to set a desired bit rate. The higher the bit rate, better the picture quality is, but shorter the recording length becomes. We recommend that you set about 6.0 Mbps to 6.8 Mbps. For saving discs to make a collection of dramas or cartoons, 3.2 Mbps is also recommended. You can fill a double sided disc with about 14 programs of 30 minutes from which unnecessary portions are deleted.
- **To fill the disc**
Select "Auto." A bit rate is calculated automatically according to the remaining volume of the disc. Some contents may not be recorded on the disc even if you select this function. This is not the function to make full use of the remaining space capacity.

Basic operations

Programing a recording (REC NAVI) (Continued)

■ Adding a programming selection

- 1) Press the **REC MENU** button.
The REC MENU appears.
- 2) Press the **▼** button to select a blank line, then press the **ENTER** button.
- 3) Press the **◀/▶** buttons to select the item, then press the **ADJUST** button to set the item.
- 4) When complete, press the **ENTER** button.
- 5) Press the **REC MENU** button to exit.

■ Deleting a program entry

- 1) Press the **REC MENU** button.
The REC MENU appears.
- 2) Press the **▲/▼** buttons to select an entry you want to delete.
- 3) Press the **QUICK MENU** button.
The Quick Menu appears.
- 4) Press the **▲/▼** buttons to select "Program Cancel," then press the **ENTER** button.
Check the message, then delete the entry.
- 5) Press the **REC MENU** button to exit.

■ Selecting a combination of picture and sound quality settings

See "AV Record Quality" ➔ page 128.

- 1) At step 3 on ➔ page 34, press the **QUICK MENU** button.
The Quick Menu appears.
- 2) Press the **▲/▼** buttons to select "AV Record Quality," then press the **ENTER** button.
The sub menu shows the combinations (1 to 5) you have registered.
- 3) Press the **▲/▼** buttons to select one, then press the **ENTER** button.
Settings corresponding to your pre-set parameters are automatically entered in the spaces: "Mode", "Rate", and "Audio".

■ Changing an entry

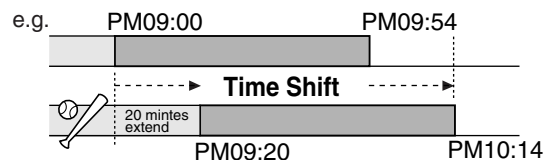
- 1) Press the **REC MENU** button.
The REC MENU appears.
- 2) Press the **▲/▼** buttons to select an entry you want to change, then press the **ENTER** button.
- 3) Press the **◀/▶** button to select an item, then press the **ADJUST** button to set the item.
- 4) Press the **ENTER** button.
The modification is registered.
- 5) Press the **REC MENU** button to exit.

Notes

- You cannot change any entry within 5 minutes before recording start time. You can only delete the programming.
- Recording start time cannot be set to less than 5 minutes after the current time.

■ Shifting a time period of a recording (Time Shift)

If a prior TV program extends beyond its scheduled time and into one that you programmed, you can shift the programmed start and end time of the recording.



- 1) Press the **REC MENU** button.
The REC MENU appears.
- 2) Press the **▲/▼** buttons to select an entry you want to shift the time period.
- 3) Open the cover of the remote control and press the **EXTEND** button.
"Start Time" and "End Time" are ready to be input.
- 4) Press the **EXTEND** button repeatedly.
Each time you press the button, "Start Time" and "End Time" is shifted in 10 minutes intervals to, up to 60 minutes later.
- 5) Press the **ENTER** button.
- 6) Press the **REC MENU** button to exit.



■ **Using elapsed programming data (Make an entry of the same TV program)**

- 1) **Press the REC MENU button.**
The REC MENU appears.
- 2) **Press the QUICK MENU button.**
The Quick Menu appears.
- 3) **Press the ▲ / ▼ buttons to select “Elapsed Programming,” then press the ENTER button.**
The list of the past entry records appears.
The latest 9 entries are listed.

You can access preceeding and previous pages by pressing the PICTURE SEARCH (◀▶) button.

- 4) **Press the ▲ / ▼ buttons to select an entry you want to use, then press the ENTER button.**
Information corresponding to the selected program appears on the Timer Programming List.
- 5) **Press the ◀ / ▶ buttons to select an item, then press the ADJUST button to modify the item.**
- 6) **When complete, press the ENTER button.**
- 7) **Press the REC MENU button to exit.**

Note

- The recorder stores the latest 36 entries. A new entry erases the oldest one.

■ **Remaining volume**

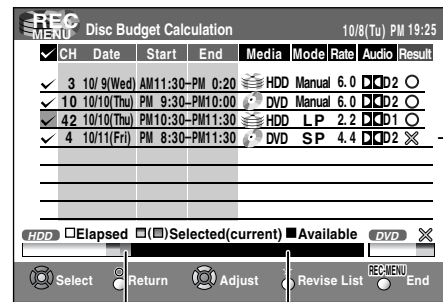
- 1) **Press the REC MENU button.**
The REC MENU appears.
- 2) **Press the QUICK MENU button.**
The Quick Menu appears.
- 3) **Press the ▲ / ▼ button to select “Disc Budget Calculation” then press the ENTER button.**
The Disc Budget Calculation menu appears.

- 4) **Press the ▲ / ▼ buttons to select an entry, then press the ENTER button or press the ADJUST button.**

The recorder calculates on a bar graph how much a specific program (identified by a check mark) will occupy on the disc.

Pressing the ADJUST button can display or remove the check mark.

e.g.



Selected entry

Available disc volume

When the entry item is marked X, the recording does not end. Change the setting.

- 5) **Correct the parameters of the entry if necessary.**

(Skip to step 7 if you do not need this.)

You can change “Media”, “Mode”, “Rate”, and “Audio”.

Select an item you want to modify and press the ENTER button. The item will be ready to be altered. Press the ADJUST button to modify. When complete, press the ENTER button.

- 6) **Press the ★ button.**

Program modification is registered.

- 7) **Press the REC MENU button to exit the GUI.**

Note

- When a Reservation disc is inserted in the recorder (▶ page 71), you cannot check the remaining volume of other discs.

Tips on recording

■ To stop recording

Press the STOP button.

■ To pause recording (to omit an unnecessary portion)

During recording, press the PAUSE button.
To resume recording, press it again.

Note

- Pausing recording automatically creates a new chapter at that point.

■ To stop a programmed recording

To finish,

Press the ■ button on the front panel twice.

When you press it once, a message appears. While the message is displayed, press the ■ button once again.

(This operation is not applicable while a menu is displayed.)

To pause recording,

Press the ■ button on the front panel.

To resume recording, press it again.

■ To change a TV channel to be recorded

1) During recording, press the PAUSE button.

Recording pauses.

2) Press the CHANNEL buttons to change the channel.

3) Press the PAUSE button to resume recording.

■ To view a TV program while recording another

1) Start recording on this recorder.

2) On a connected TV, select the TV mode.

3) Using the channel selector of the TV, select a desired channel on the TV.

■ To reduce noise on recordings (Rec DNR)

Before recording, select "Rec DNR" from the setup display. ➡ page 129.

■ To record and play at the same time

● To start recording while playing a disc

Stop playback, then select the other disc by pressing the HDD or DVD button, and start recording on that disc.

● To play a disc while recording on another disc

Select the disc that is not being recorded by pressing the HDD or DVD button, and start playback on the disc.

■ To set an end time while recording is in progress

1) During recording, press the QUICK MENU button.

The Quick Menu appears.

2) Press the ▲ / ▼ buttons to select "End Time" then press the ENTER button.

The display changes as follows:

e.g.



3) Press the ◀ / ▶ buttons to select an item then press the ADJUST button to change the value.

4) Press the ENTER button.

Note

- By setting an end time, it is memorized as a programmed one, and the Ⓜ indicator in the display section illuminates to indicate that the recorder keeps an entry of recording.
- You cannot change the end time, once the setting is completed.
- The programmed end time must be set for after 5 minutes from the current time.

■ To turn the power off automatically after completing a programmed recording

1) While performing a programmed recording, press the QUICK MENU button.

The Quick Menu appears.

2) Press the ▲ / ▼ buttons to select "Auto Power Off" then press the ENTER button.

**■ To delay the end time while recording****Press the EXTEND button under the lid of the remote control.**

When you press it once, the current end time appears. Each time you press the button, the end time (displayed in the indication section) is delayed in 10 minutes increments, up to 60 minutes.

Notes

- Pressing any button other than the EXTEND button completes this procedure to determine the end time.
- This operation must be performed prior to 1 minute before the programmed end time.
- A recording automatically finishes when the disc is full or when the recording exceeds 9 hours regardless of whether or not you delayed the end time.

■ To play a title recorded on the HDD while recording on the HDD (Recorded Title Play in HDD) HDD

This function works only during HDD recording. You cannot play a title recorded on a DVD-RAM disc simultaneously with DVD-RAM recording.

- 1) **While recording on the HDD, press the CONTENT MENU button.**
- 2) **Press the ▲ / ▼ / ◀ / ▶ buttons to select a desired title, then press the ENTER button.**

Playback of the selected title starts.

Pressing the STOP button stops playback, and the content that is being recorded appears on the display. If you press the PLAY button, playback resumes from the location you last stopped.

Note

- While you are using this function, the following operations/functions are not available.
 - Dividing chapters. (By the CHP DIVIDE button)
 - Programmed playback (Repeat playback, etc.)
 - Editing (Chapter dividing, Playlist programming, dubbing, title naming, title thumbnail setting, intro scan)
- While performing relay recording (▶ page 70), this function is not available.

■ Entering the recording format on the DVD-R

Before recording, make sure "DVD-R Broadcast Record" is set to "Main" or "SAP" (▶ page 128).

Notes

- You cannot close the disc tray automatically at the recording start time. If you want to record on a DVD-RAM disc, load it on the recorder beforehand.
- While recording, you cannot change the settings of a program, such as the channel, mode, etc.
- The number of titles cannot exceed in any case 99 for a DVD-RAM and 198 for the HDD.
- You cannot record on both an HDD and a DVD-RAM disc at the same time (except relay recording).
- The maximum length of a recording is 9 hours. Recording automatically stops when length exceeds 9 hours.
- While performing a programmed recording, you cannot program a new timer selection.
- You may not be able to start recording if there is too little time before a programmed recording begins.
- A programmed recording may not be executed if a power failure occurs within 5 minutes before the start time.
- If an HDD starts programmed recording while you are playing a DVD-drive disc, the picture may pause momentarily.
- When you record monaural sound, the same sound is recorded to both left and right channel.
- When you record a bilingual program in the "L-PCM" mode (▶ page 35), the sound is recorded as stereo. In this case, both the main and sub sound will be output at the same time. Select the output sound by pressing the INPUT SELECT button.
- When you record content which will be dubbed on a DVD-R, be sure to set "DVD-R Broadcast Record" to "Main" or "SAP" (▶ page 128).
- To select SAP, set "SAP" to "on" (▶ page 124).
- When you set "DVD-R Broadcast Record" to "Main" or "SAP" (▶ page 128), only the selected sound of the bilingual program (main or sub) is recorded.
- When you set "DVD-R Broadcast Record" to "Main" or "SAP" (▶ page 128), only the selected sound of the bilingual program is recorded. To prevent this, set "DVD-R Broadcast Record" only when you record content that will be dubbed to a DVD-R.



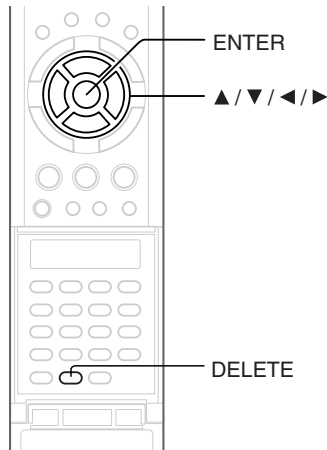
Basic operations

Tips on recording (continued)

■ To delete recorded content

Important note

Any deleted title/chapter (original) cannot be restored. Before deleting, be sure to check contents on the disc.



- 1) Perform steps 1 and 2 in “Playing recorded contents (CONTENT MENU)” (➡ page 30) to select a title (chapter).
- 2) Open the lid of the remote control and press the **DELETE** button.
Alternate method:
Press the **QUICK MENU** button, then press the **▲/▼** buttons to select “Title Delete” (“Chapter Delete”) and press the **ENTER** button.
- 3) Check the message and press the **◀/▶** buttons to select “Yes,” then press the **ENTER** button.

Notes

- Deleting a title (a chapter) decreases the numbers of the succeeding titles (chapters).
- A chapter of about 5 seconds or shorter may not be deleted. Deleting a short chapter may not change the display of the available disc volume.
- Deleting a playlist (➡ page 104) title/chapter does not affect the original title/chapter.
- Deleting an original (➡ page 104) title/chapter affects all the corresponding playlist title/chapters.
- Deleting all chapters in a title erases the title itself.
- Chapters in a title which contains still pictures cannot be deleted.

■ To protect recorded content

You can protect recorded content from unexpected deletion.

Protection is provided for each title (original).

- 1) Perform steps 1 and 2 in “Playing recorded contents (CONTENT MENU)” (page 30) to select a title.

- 2) Press the **QUICK MENU** button, and press the **▲/▼** buttons to select “Title Information”. Then press the **ENTER** button. Press the **◀/▶** buttons to select “Lock” and then press the **ENTER** button.

The mark  appears.

Notes

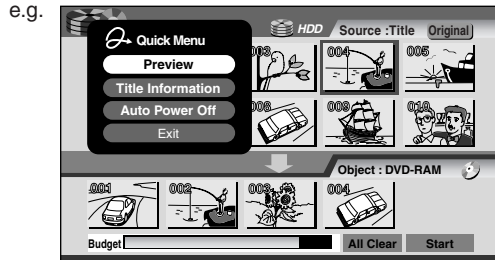
- To cancel protection, repeat this procedure.
- Disc initialization erases all titles on a disc even if they are protected.

Basic operations

HDD DVD-RAM DVD-VIDEO VCD CD

Quick Menu operation

To access various optional functions of this recorder, open the Quick Menu. The Quick Menu displays a lite of selections relevant to your current mode.



Opening a Quick Menu

- 1 Press QUICK MENU.**
The Quick Menu appears.
- 2 Press ▲ / ▼ to select an item, then press ENTER.**

- **To exit the Quick Menu**
Press the QUICK MENU button again.
Alternatively
Select “Exit” with the ▲ / ▼ buttons, then press the ENTER button.

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Basic operations

Quick menu operation (Continued)

Functions in a Quick Menu

Besides these examples, various other ones are introduced on respective pages for convenience.

■ To play repeatedly (Repeat playback)

You can repeat a desired section.

Disc: **HDD** **DVD-RAM** **DVD-VIDEO** **VCD** **CD**

Status: Stop / Play

Item: **Special Playback Mode**

A sub menu appears. Follow steps 2 (➡ page 41) to select an item.

A-B Repeat

You can designate a portion in a title or track to repeat continuously.

If you select "A-B Repeat" and press the ENTER button, the following display appears. Perform steps 1 and 2 below.

e.g.



To cancel the procedure, press the **O** button.

1) Press the ENTER button at the beginning of the segment (point A) you want to repeat.

The location of point A is memorized.
The display changes to "Set B".

2) Press the ENTER button at the end of the segment (point B).

The location of point B is memorized, and repeat playback begins between point A and B.

Title repeat

To repeat the same title.

Chapter repeat

To repeat the same chapter.

Track repeat

To repeat the same track.

Disc repeat

To repeat the entire disc.

Repeat All ORG Titles

To repeat all original titles in a disc.

Repeat All PL Titles

To repeat all playlist titles in a disc.

Cancel repeat

(in Repeat playback mode)
To resume normal playback.
Playback of an HDD or DVD-RAM stops.

Notes

- Some discs may not permit repeat operation.
- You cannot use repeat playback in conjunction with Random play.
- If you press the STOP button during repeat playback, this operation is canceled.
- While you are performing repeat playback on an HDD or a DVD-RAM disc, other operations except pause play is not available.

■ To play in random order (Random play)

You can play sections in random order.

Disc: **DVD-VIDEO** **VCD** **CD**

Status: Stop / Play

Item: **Special Playback Mode**

A sub menu appears. Follow steps 2 (➡ page 41) to select an item.

Title random

Plays all titles in a loaded disc in random order.
Each title is played beginning from chapter 1.

Chapter random

Plays all chapters in a current title in random order.

Track random

Plays all tracks on a loaded disc in random order.

Cancel random

(in Random play mode)
Resumes normal playback.

Notes

- Some discs may not permit random playback operation.
- You cannot use the random playback function in conjunction with the memory playback function.
- You cannot use the random playback function in conjunction with the repeat playback function.
- Pressing the STOP button during operation cancels random playback.

**■ To play in favorite order (Memory playback)**

You can select 30 titles, chapters, or tracks and play them in favorite order.
(To play contents in an HDD or DVD-RAM disc in favorite order, make a playlist. For details, see "Editing" on page 104.)

Disc: DVD-VIDEO VCD CD

Status: Stop / Play

Item: **Special Playback Mode**

A sub menu appears. Follow steps 2 (page 41) to select an item.

Memory list

If you select this and press the ENTER button, the following display appears. Perform the steps below.

e.g.

01 T CT	11 T CT	21 T CT
02 T CT	12 T CT	22 T CT
03 T CT	13 T CT	23 T CT
04 T CT	14 T CT	24 T CT
05 T CT	15 T CT	25 T CT
06 T CT	16 T CT	26 T CT
07 T CT	17 T CT	27 T CT
08 T CT	18 T CT	28 T CT
09 T CT	19 T CT	29 T CT
10 T CT	20 T CT	30 T CT

1) Input numbers of a titles, chapters, or tracks by using the number buttons, in favorite order.

Input each 3-digit number.

To input a 1- or 2-digit number, first input 0.

(e.g. "0", "0", "3".)

To cancel the numbers, press the CLEAR button.

To input a chapter number, press the / buttons to shift the cursor.

2) Press the / buttons to select the next box, then perform step 1).

To select another chapter in the same title, you do not need to select the title number.

Repeat these steps if necessary.

You can program up to 30 selections into memory.

3) Press the ENTER button.**Memory**

: (in normal playback mode)

To display an entry box for one program selection.

Memory release

: (in memory playback mode)

To resume normal playback.

Memory repeat

: (in memory playback mode)

To repeat a current memory playback.

Notes

- Some discs may not permit memory playback operation.
- Inputting numbers of titles, chapters or tracks that a disc does not contain will result in error.
- You cannot program/change selections during memory playback. To change selections, cancel memory playback by pressing the STOP button.
- When you turn off the power, the selected memory is erased.
- You can exit the memory playback display by pressing the O button.

Basic operations

Quick menu operation (Continued)

■ To display the current bit rate

Disc: **HDD** **DVD-RAM** **DVD-VIDEO**

Status: Stop / Play

Item: **Bit rate**

Note

- To turn off the bit rate display, select this item again.

■ To use virtual surround sound effect

You can obtain expansive virtual surround sound effects from just two speakers. (3-D sound)

Disc: **HDD** **DVD-RAM** **DVD-VIDEO** **VCD** **CD**

Status: Stop / Play

Item: **3D (N-2-2)**

A sub menu appears. Perform step 2 (➡ page xx) to select an item.

Off

3D effect is turned off.

On

3D effect is activated.

Headphone

A 3D effect designed especially for headphone sound is activated.

Notes

- You may notice a change in apparent volume level when using this function.
- This function may not work depending on the sound format and the setting (➡ page 55).
- Dolby Surround Pro Logic may not work at all or correctly when using the 3D sound effect.
- For high quality sound, set to "Off" when playing back a Linear PCM track.

■ To check information on a title

Disc: **HDD** **DVD-RAM**

Status: Play

Item: **Title Information**

■ To preview the first and end of every selection (titles/chapters)

Disc: **HDD** **DVD-RAM**

Status: While the EDIT MENU is displayed.

Item: **Preview**

■ To cancel selection of a title/chapter

Disc: **HDD** **DVD-RAM**

Status: While the EDIT MENU is displayed.

Item: **Cancel Selected Title**

■ To program the recorder to turn itself off automatically after an operation is finished

Disc: **HDD** **DVD-RAM**

Status: While the EDIT MENU is displayed. / During timer program recording.

Item: **Auto Power Off**

Note

- This function will be canceled if the initial operation was not completed properly, e.g., canceled or interrupted.

■ To exit the Quick Menu

Disc: **HDD** **DVD-RAM** **DVD-VIDEO** **VCD** **CD**

Status: While the Quick Menu is displayed.

Item: **Exit**

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