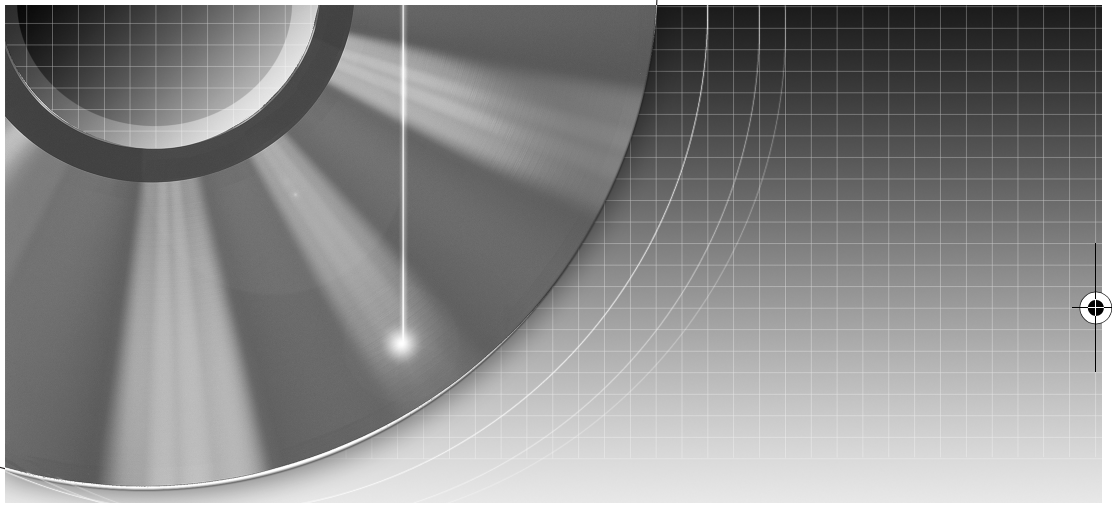


SONY[®]

2-188-393-11(1)



DVD Recorder

Operating Instructions

RDR-GXD500



© 2004 Sony Corporation

Important Information

Should you experience a problem with this recorder, please refer to the trouble shooting section on page 91. If you are unable to rectify the problem, contact the Sony Customer Information Centre on

08705 111 999

(Monday-Friday from 8:30am to 6:00pm)

Please ensure you have the following information available before calling the helpline:

Date of purchase: -----
Serial number: -----
Model number: -----
Post code: -----
Detailed fault description: -----
Signal strength and signal quality: -----

Note:

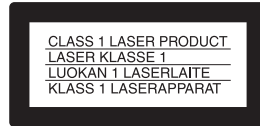
You can check the signal strength and signal quality using the menu system of this recorder.

Page 29 explains how to display the main menu on screen, and page 81 explains how to obtain the signal strength display.

The serial number and the model number are located on the rear of the recorder.

WARNING

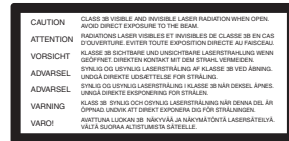
To prevent fire or shock hazard, do not expose the unit to rain or moisture. To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only. The mains lead must only be changed at a qualified service shop.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION

The use of optical instruments with this product will increase eye hazard. As the laser beam used in this DVD recorder is harmful to eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.



This label is located on the laser protective housing inside the enclosure.

Notice for customers in the United Kingdom and Republic of Ireland

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS1362, (i.e., marked with ⚡ or ⚡ mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

Precautions

- This unit operates on 220 – 240 V AC, 50/60 Hz. Check that the unit's operating voltage is identical with your local power supply.
- To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Precautions

This equipment has been tested and found to comply with the limits set out in the EMC Directive using a connection cable shorter than 3 metres.

On safety

Should any solid object or liquid fall into the cabinet, unplug the recorder and have it checked by qualified personnel before operating it any further.

On power sources

- The recorder is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the recorder itself has been turned off.
- If you are not going to use the recorder for a long time, be sure to disconnect the recorder from the wall outlet. To disconnect the AC power cord (mains lead), grasp the plug itself; never pull the cord.

On placement

- Place the recorder in a location with adequate ventilation to prevent heat build-up in the recorder.
- Do not place the recorder on a soft surface such as a rug that might block the ventilation holes.
- Do not place the recorder in a confined space such as a bookshelf or similar unit.
- Do not place the recorder in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Do not place the recorder in an inclined position. It is designed to be operated in a horizontal position only.
- Keep the recorder and discs away from equipment with strong magnets, such as microwave ovens, or large loudspeakers.
- Do not place heavy objects on the recorder.

On recording

- Note that the contents of the recording cannot be compensated for under any and all conditions, including conditions that may arise due to a malfunction of this unit.
- Make trial recordings before making the actual recording.

Copyrights

- Television programmes, films, video tapes, discs, and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.
- This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Copy guard function

Since the recorder has a copy guard function, programmes received through an external tuner (not supplied) may contain copy protection signals (copy guard function) and as such may not be recordable, depending on the type of signal.

IMPORTANT NOTICE

Caution: This recorder is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Plasma display panels and projection televisions are especially susceptible to this.

If you have any questions or problems concerning your recorder, please consult your nearest Sony dealer.

About this manual

- Instructions in this manual describe the controls on the remote. You can also use the controls on the recorder if they have the same or similar names as those on the remote.
- The on-screen display illustrations used in this manual may not match the graphics displayed on your TV screen.
- The explanations regarding discs in this manual refer to discs created on this recorder. The explanations do not apply to discs that are created on other recorders and played back on this recorder.

Table of Contents

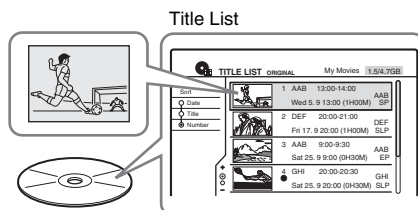
Important Information	2
WARNING	2
Precautions	3
Ways to Use Your DVD Recorder	6
Quick Guide to Disc Types	8
<hr/>	
Hookups and Settings	12
Hooking Up the Recorder	12
Step 1: Unpacking	12
Step 2: Connecting the Aerial Cable	13
Step 3: Connecting the Video Cords	14
Step 4: Connecting the Audio Cords	17
Step 5: Connecting the Mains Lead	19
Step 6: Preparing the Remote	19
Step 7: Easy Setup	22
Connecting a VCR or Similar Device	26
Connecting to a Satellite or Digital Tuner	28
<hr/>	
Guide to Displays	29
Using the On-Screen Menus	29
Using the Title List	30
Using the "Disc Info" Screen (disc settings)	32
Checking the Play Information and Playing Time	35
How to Enter Characters	37
<hr/>	
Guide to Digital Services	38
EPG (Electronic Programme Guide)	38
Programme information	40
Viewing a digital text service	41
Favourites	42
Index	44
<hr/>	
Recording	45
Before Recording	45
Timer Recording (Standard/EPG)	46
Checking/Changing/Canceling Timer Settings (EPG)	49
Checking/Changing/Canceling Timer Settings (Timer List)	51
Recording Without the Timer	52
Recording From Connected Equipment With a Timer (Synchro Rec)	55
Recording From Connected Equipment Without a Timer	57
<hr/>	
Playback	58
Playing	58
Chasing Playback/Simultaneous Rec and Play	64
Searching for a Title/Chapter/Track, etc.	65
Playing MP3 Audio Tracks	66

Editing	68
Before Editing	68
Editing a Title	69
Creating and Editing a Playlist	72
Settings and Adjustments	76
Using the Setup Displays	76
Aerial Reception and Language Settings (Settings)	77
Digital TV settings (DTV Settings)	78
Video Settings (Video)	82
Audio Settings (Audio)	84
Recording and Parental Control Settings (Features)	86
Parental Control (Password)	89
Disc and Remote Control Settings/Factory Settings (Options)	89
Easy Setup (Resetting the Recorder)	90
Additional Information	91
Troubleshooting	91
Self-diagnosis Function (When letters/numbers appear in the display)	95
Notes About This Recorder	96
Specifications	97
Guide to Parts and Controls	98
Glossary	102
Language Code List	104
Digital TV Channel List	105
Index	107

Ways to Use Your DVD Recorder

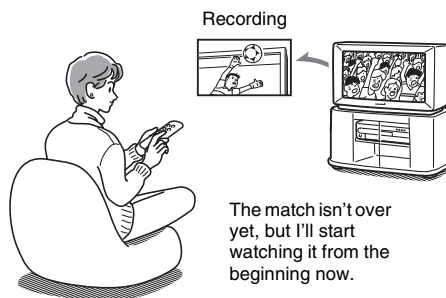
Quick access to recorded titles – Title List

- ➔ Display the Title List to see all of the titles on the disc, including recording date, channel, recording mode and thumbnail image (page 30).



Play the beginning of a title while it is being recorded – Chasing Playback

- ➔ If you are using a DVD-RW (VR mode), you can watch a programme from the beginning while it is being recorded (page 64).

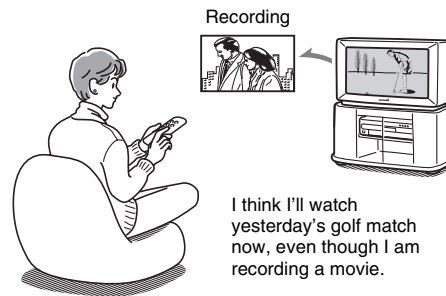


Quick access to digital services

- ➔ An easy and convenient way to:
- View a complete list of all available channels.
 - View descriptions of the programmes being broadcast now and next.
 - Store your favourite channels.
 - Set a programme to be recorded.

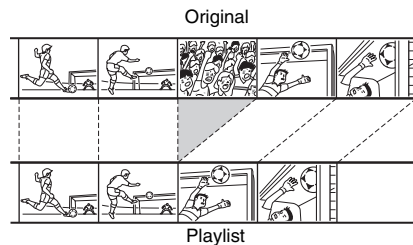
Watching one title while recording another – Simultaneous Rec and Play

- If you are using a DVD-RW (VR mode), you can watch a previously recorded programme while recording another programme on the same disc (page 64).



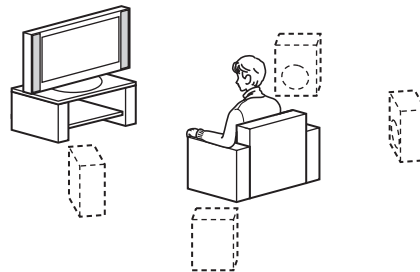
Creating your own programme – Playlist

- Record a programme on a DVD-RW (VR mode), then delete, move and add scenes at will to create your own, original programme (page 72).



Dynamic surround sound – TVS










- Enjoy virtual surround sound effects from just your TV's speakers with the TV Virtual Surround settings when playing a DVD VIDEO with multichannel audio tracks such as Dolby Digital (5.1ch) (page 61).



A list of recordable and playable discs is on page 8.

Quick Guide to Disc Types

Recordable and playable discs

Type	Disc Logo	Icon used in this manual	Formatting (new discs)	Compatibility with other DVD players (finalizing)	Recordable	Rewrite (page 45)
DVD+RW	 DVD+ReWritable		Automatically formatted	Playable on DVD+RW compatible players (automatically finalized)		Yes
DVD-RW			Format in VR mode (page 33)	Playable only on VR mode compatible players (finalization unnecessary)		Yes
			Format in Video mode (page 33)	Playable on most DVD players (finalization necessary) (page 34)		Yes
DVD+R	 DVD+R		Automatically formatted	Playable on DVD+R compatible players (finalization necessary) (page 34)		No
DVD-R	 R R4.7		Automatically formatted	Playable on most DVD players (finalization necessary) (page 34)		No

Usable disc versions (as of November 2004)

- 4x-speed or slower DVD+RWs
- 2x-speed or slower DVD-RWs (Ver.1.1, Ver.1.1 with CPRM^{*1})
- 8x-speed or slower DVD+Rs
- 8x-speed or slower DVD-Rs (Ver.2.0)

“DVD+RW,” “DVD-RW,” “DVD+R,” and “DVD-R,” are trademarks.

*1 CPRM (Content Protection for Recordable Media) is a coding technology that protects copyrights for images.

*2 Only if the recording mode is SP, HSP, or HQ, and “Line Rec Picture Size” is set to “16:9” (page 54).

*3 Erasing titles does not free up disc space.









	Recording Features				Editing Features			
	Rewrite (page 45)	Auto Chapter (page 86)	Manual Chapter (page 72)	Record 16:9 sizes (page 54)	Change title name (page 69)	Delete title (page 70)	A-B Erase (page 70)	Playlist (page 72)
	Yes	Yes	No	No	Yes	Yes	Yes	No
le)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	No	Yes *2	Yes	Yes	No	No
ization	No	Yes	No	No	Yes	Yes *3	No	No
	No	Yes	No	Yes *2	Yes	Yes *3	No	No

Discs that cannot be recorded on

- 4x-speed compatible DVD-RWs (Ver. 1.2/4x)
- DVD-RWs (Ver. 1.0)
- DVD+RWs that are not 2.4x-speed compatible
- Dual layer discs
- 8 cm discs

→ continued 9

Playable discs

Type	Disc Logo	Icon used in this manual	Characteristics
DVD VIDEO			Discs such as movies that can be purchased or rented
VIDEO CD			VIDEO CDs or CD-Rs/CD-RWs in VIDEO CD/Super VIDEO CD format
CD			Music CDs or CD-Rs/CD-RWs in music CD format that can be purchased
DATA CD			CD-ROMs/CD-Rs/CD-RWs created on a PC or similar device in music format containing MP3 audio tracks

Discs that cannot be played

- All CD-ROMs (including PHOTO CDs)
- CD-Rs/CD-RWs, other than those recorded in music CD format, MP3 format, or Video CD format
- Data part of CD-Extras
- DVD-ROMs
- DVD Audio discs
- DVD-RAMs
- HD layer on Super Audio CDs
- DVD VIDEOS with a different region code (page 11)


Hint

This DVD recorder can play 8 cm CDs and 8 cm DVDs as well.

Note on playback operations of DVD VIDEOS/ VIDEO CDs

Some playback operations of DVD VIDEOS/
VIDEO CDs may be intentionally set by software
producers. Since this recorder plays DVD
VIDEOS/VIDEO CDs according to the disc
contents the software producers designed, some
playback features may not be available. Also, see
the instructions supplied with the DVD VIDEOS/
VIDEO CDs.

Region code (DVD VIDEO only)

Your recorder has a region code printed on the rear
of the unit and will only play DVD VIDEOS
(playback only) labelled with identical region
codes. This system is used to protect copyrights.
DVD VIDEOS labelled  will also play on this
recorder.

If you try to play any other DVD VIDEO, the
message "Playback prohibited by region code."
will appear on the TV screen. Depending on the
DVD VIDEO, no region code indication may be
labelled even though playing the DVD VIDEO is
prohibited by area restrictions.



Notes

- Some DVD+RWs/DVD+Rs, DVD-RWs/DVD-Rs, or CD-RWs/CD-Rs cannot be played on this recorder due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software. The disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.
- You cannot mix VR mode and Video mode on the same DVD-RW. To change the disc's format, reformat the disc (page 33). Note that the disc's contents will be erased after reformatting.
- You cannot shorten the time required for recording even with high-speed discs. Also, you cannot record on the disc if the disc is not 1x speed compatible.
- It is recommended that you use discs with "For Video" printed on their packaging.
- You cannot add new recordings to DVD-Rs or DVD-RWs (Video mode) that contain recordings made on other DVD equipment.
- In some cases, you may not be able to add new recordings to DVD+RWs that contain recordings made on other DVD equipment. If you do add a new recording, note that this recorder will rewrite the DVD menu.
- If the disc contains PC data unrecognizable by this recorder, the data may be erased.

Music discs encoded with copyright protection technologies

This product is designed to play back discs that
conform to the Compact Disc (CD) standard.
Recently, various music discs encoded with
copyright protection technologies are being
marketed by some record companies. Please be
aware that among those discs, there are some that
do not conform to the CD standard and may not be
playable by this product.

Hookups and Settings

Hooking Up the Recorder

Follow steps 1 to 7 to hook up and adjust the settings of the recorder.

Notes

- Plug cords securely to prevent unwanted noise.
- Refer to the instructions supplied with the components to be connected.
- You cannot connect this recorder to a TV that does not have a SCART or video input jack.
- Be sure to disconnect the mains lead of each component before connecting.

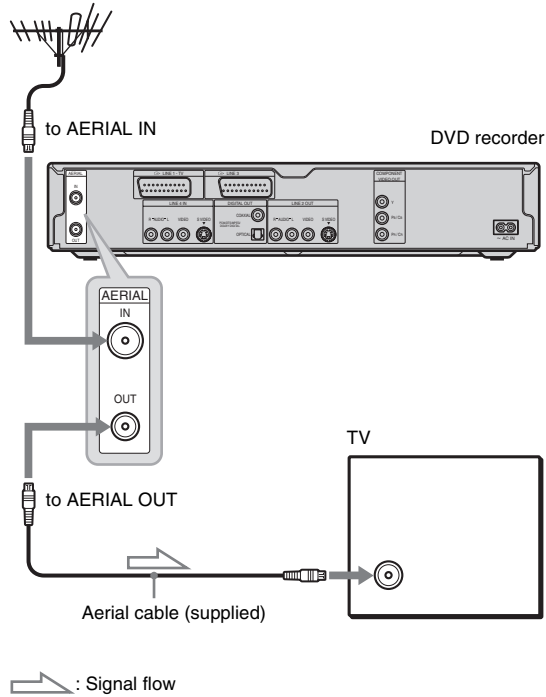
Step 1: Unpacking

Check that you have the following items:

- Audio/video cord (pinplug × 3 ↔ pinplug × 3) (1)
- Mains lead (1)
- Aerial cable (1)
- Remote commander (remote) (1)
- R6 (size AA) batteries (2)

Step 2: Connecting the Aerial Cable

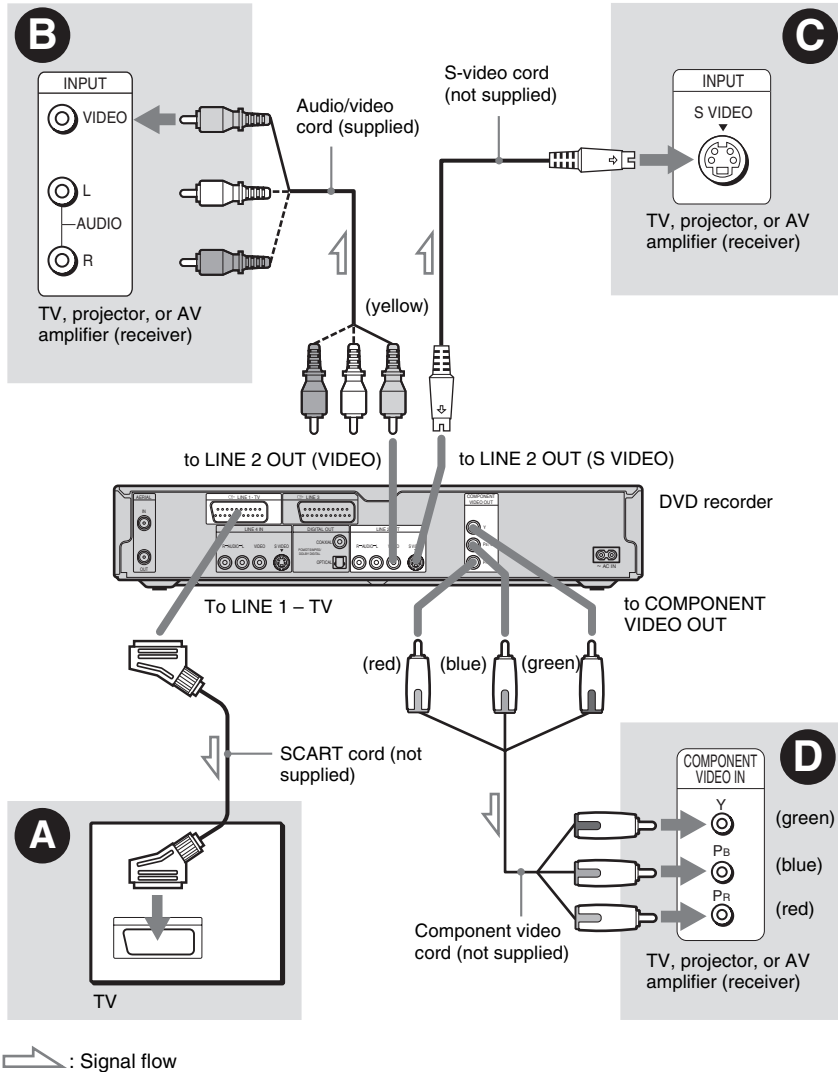
Connect the aerial cable by following the steps below. Do not connect the mains lead until you reach “Step 5: Connecting the Mains Lead” (page 19).



- 1** Disconnect the aerial cable from your TV and connect it to **AERIAL IN** on the rear panel of the recorder.
- 2** Connect **AERIAL OUT** of the recorder to the aerial input of your TV, using the supplied aerial cable.

Step 3: Connecting the Video Cords

Select one of the following patterns **A** through **D**, according to the input jack on your TV monitor, projector, or AV amplifier (receiver). This will enable you to view pictures. Audio connections are explained in “Step 4: Connecting the Audio Cords” (page 17).



Note

Do not connect more than one type of video cord between the recorder and your TV at the same time.

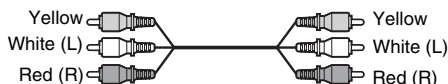
A Connecting to a SCART input jack

Connect using a SCART cord (not supplied) to the LINE 1-TV jack and your TV. Be sure to make the connections firmly to avoid hum and noise. See the operating instructions supplied with the TV to be connected. Also, when you set "Line1 Output" to "S Video" or "RGB" in step 9 of Easy Setup (page 24), use a SCART cord that conforms to the selected signal.



B Connecting to a video input jack

Connect the yellow plug of the audio/video cord (supplied) to the yellow (video) jack. You will enjoy standard quality images.



C Connecting to an S VIDEO input jack

Connect using an S-video cord (not supplied). You will enjoy high quality images.



D Connecting to component video input jacks (Y, P_B/C_B, P_R/C_R)

Connect the COMPONENT VIDEO OUT jacks using a component video cord (not supplied) or three video cords (not supplied) of the same kind and length. You will enjoy accurate colour reproduction and high quality images.



When playing "wide screen" images

Some recorded images may not fit your TV screen. To change the aspect ratio, see page 82.

If you are connecting to a VCR

Connect your VCR to the LINE 3 jack on the recorder (page 26).

Notes


- When you connect the recorder to your TV via the SCART jacks, the TV's input source is set to the recorder automatically when you start playback. If necessary, press TV/DVD on the remote to return the input to the TV.
- For correct SMARTLINK connection, you will need a SCART cord that has the full 21 pins. Refer to your TV's instruction manual as well for this connection.
- If you connect this recorder to a TV with SMARTLINK, set "Line1 Output" to "Video" in step 9 of Easy Setup (page 24).

About the SMARTLINK features (for SCART connections only)

If the connected TV (or other connected equipment such as a set top box) complies with SMARTLINK, NexTVView Link, MEGALOGIC*¹, EASYLINK*², CINEMALINK*², Q-Link*³, EURO VIEW LINK*⁴, or T-V LINK*⁵, this recorder automatically runs the SMARTLINK function after you complete the connection pattern A on page 14 (the SMARTLINK indicator lights up when you turn on your TV). You can enjoy the following SMARTLINK features.

- TV Direct Rec
You can easily record what you are watching on your TV (page 53).
- One Touch Play
You can turn on the recorder and TV, set the TV's input to the recorder, and start playback with one touch of the ▷ (play) button (page 59).
- One Touch Menu
You can turn on the recorder and TV, set the TV to the recorder's channel, and display the Title List menu with one touch of the TITLE LIST button (page 59).
- One Touch Timer
You can turn on the recorder and TV, set the TV to the recorder's channel, and display the timer programming menu with one touch of the TIMER button on the remote (page 47).
- Automatic Power Off
The recorder will turn off automatically if the recorder is not used after you turn off the TV.

- One Touch EPG

You can turn on the recorder and TV, set the TV to the recorder's channel, and display the Electronic Programme Guide screen with one touch of the  (EPG) button on the remote.

- EPG Title Download

The recorder will automatically download and set the title of the programme being recorded from LINE 1 according to the title name displayed in the EPG of the connected TV or STB.

*1 "MEGALOGIC" is a registered trademark of Grundig Corporation.

*2 "EASYLINK" and "CINEMALINK" are trademarks of Philips Corporation.

*3 "Q-Link" is a trademark of Panasonic Corporation.

*4 "EURO VIEW LINK" is a trademark of Toshiba Corporation.

*5 "T-V LINK" is a trademark of JVC Corporation.

 **Hint**

SMARTLINK also works with TVs or other equipment having EPG Timer Control, EPG Title Download, and Now Recording functions. For details, refer to the operating instructions supplied with your TV or other equipment.

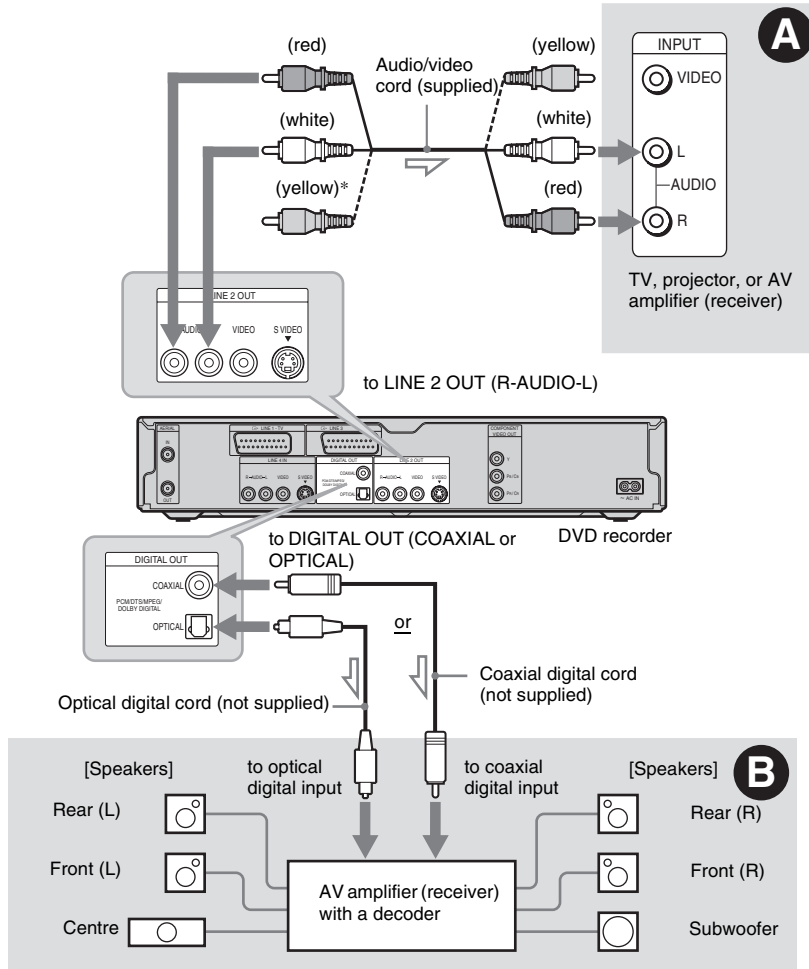
Notes

- The SMARTLINK features are available only when "Video" is selected in "Line1 Output."
- The SMARTLINK features are not available for devices connected via the DVD recorder's LINE 3 jack.
- Not all TVs respond to the functions above.

Step 4: Connecting the Audio Cords

Select one of the following patterns **A** or **B**, according to the input jack on your TV monitor, projector, or AV amplifier (receiver). This will enable you to listen to sound.

Hookups and Settings



▬ : Signal flow

* The yellow plug is used for video signals (page 14).

Hint

For correct speaker location, see the operating instructions supplied with the connected components.

Note

Do not connect your TV's audio output jacks to the LINE IN (AUDIO L/R) jacks at the same time. This will cause unwanted noise to come from your TV's speakers.

→ continued 17

A Connecting to audio L/R input jacks

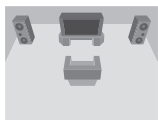
This connection will use your TV's or stereo amplifier's (receiver's) two speakers for sound. Connect using the audio/video cord (supplied).



- Surround effect (page 60)
TV: Dynamic, Wide, Night



Stereo amplifier (receiver): Standard, Night

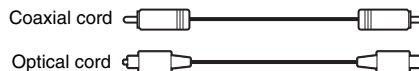


Note

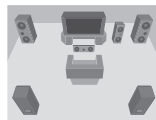
Do not connect the LINE 4 IN (R-AUDIO-L) and LINE 2 OUT (R-AUDIO-L) jacks to your TV's audio output jacks at the same time. This will cause unwanted noise to come from your TV's speakers.

B Connecting to a digital audio input jack

If your AV amplifier (receiver) has a Dolby*¹ Digital, DTS*², or MPEG audio decoder and a digital input jack, use this connection. Connect using a coaxial or optical digital cord (not supplied).



- Surround effect
Dolby Digital (5.1ch), DTS (5.1ch), MPEG audio (5.1ch)



*¹ Manufactured under license from Dolby Laboratories. "Dolby," "Pro Logic," and the double-D symbol are trademarks of Dolby Laboratories.

*² "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

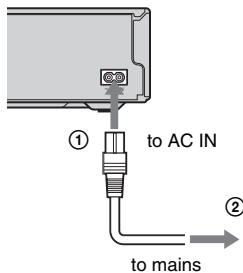
Notes

- After you have completed connection B, make the appropriate settings under "Audio Connection" in Easy Setup (page 22). If your AV amplifier (receiver) has an MPEG audio decoder function, set "MPEG" to "MPEG" in Audio Setup (page 85). Otherwise, no sound or a loud noise will come from your speakers.
- The surround sound effects of this recorder cannot be used with connection B.


Step 5: Connecting the Mains Lead

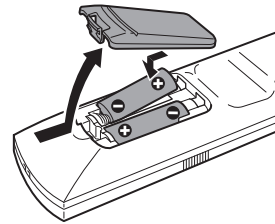
Connect the supplied mains lead to the AC IN terminal of the recorder. Then plug the recorder and TV mains leads (power cords) into the mains. After you connect the mains lead, **you must wait for a short while before operating the recorder.** You can operate the recorder once the front panel display lights up and the recorder enters standby mode.

If you connect additional equipment to this recorder (page 26), be sure to connect the mains lead after all connections are complete.




Step 6: Preparing the Remote

You can control the recorder using the supplied remote. Insert two R6 (size AA) batteries by matching the ⊕ and ⊖ ends on the batteries to the markings inside the battery compartment. When using the remote, point it at the remote sensor  on the recorder.



Notes

- If the supplied remote interferes your other Sony DVD recorder or player, change the command mode number for this recorder (page 21).
- Use the batteries correctly to avoid possible leakage and corrosion. Do not touch the liquid with bare hands should leakage occur. Observe the following:
 - Do not use a new battery with an old battery, or batteries of different manufacturers.
 - Do not attempt to recharge the batteries.
 - If you do not intend to use the remote for an extended period of time, remove the batteries.
 - If battery leakage occurs, wipe out any liquid inside the battery compartment, and insert new batteries.
- Do not expose the remote sensor (marked  on the front panel) to strong light, such as direct sunlight or lighting apparatus. The recorder may not respond to the remote.

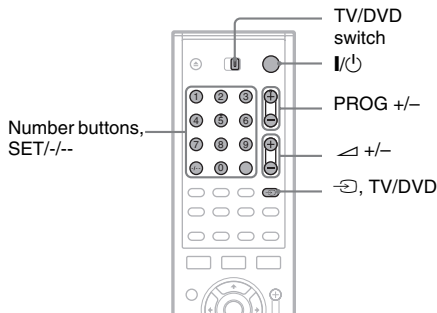
Controlling TVs with the remote

You can adjust the remote's signal to control your TV.

If you connected the recorder to an AV amplifier (receiver), you can use the supplied remote to control the AV amplifier's (receiver's) volume.

Notes

- Depending on the connected unit, you may not be able to control your TV or AV amplifier (receiver) with some or all of the buttons below.
- If you enter a new code number, the code number previously entered will be erased.
- When you replace the batteries of the remote, the code number may be reset to the default setting. Set the appropriate code number again.



- 1 Slide the TV/DVD switch to TV.
- 2 Hold down I/O.
- 3 Enter your TV's manufacturer code (see "Code numbers of controllable TVs" below) using the number buttons.
- 4 Release I/O.

When the TV/DVD switch is set to TV, the remote performs the following:

I/O	Turns your TV on or off
∟ (volume) +/-	Adjusts the volume of your TV
PROG +/-	Selects the programme position on your TV
⊞ (TV/video)	Switches your TV's input source
Number buttons and SET, -/--*	Selects the programme position on your TV

* If you use the number buttons to select the TV's programme position, press -/-- followed by the number buttons for two-digit numbers.

To operate the TV/DVD button (for SCART connections only)

The TV/DVD button switches between the recorder and the last input source selected on the TV. Point your remote at the recorder when using this button. The button works even if the TV/DVD switch is set to DVD.

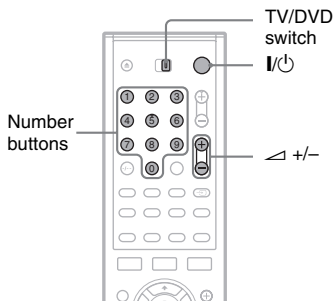
When you connect the recorder to the TV via the SCART jacks, the input source for the TV is set to the recorder automatically when you start playback. To watch another source, press the TV/DVD button to switch the TV's input source.

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

Manufacturer	Code number
Sony	01 (default)
Aiwa	01 (default)
Grundig	11
Hitachi	23, 24, 72
Loewe	06, 45
Nokia	15, 16, 69, 73
Panasonic	17, 49
Philips	06, 07, 08, 23, 45, 72
Saba	12, 13, 36, 43, 74, 75
Samsung	06, 22, 23, 71, 72
Sanyo	25
Sharp	29
Telefunken	12, 13, 36, 43, 74, 75
Thomson	12, 13, 43, 74, 75
Toshiba	38
LG	06
JVC	33

Controlling the volume of your AV amplifier (receiver) with the remote



- 1 Slide the TV/DVD switch to DVD.
- 2 Hold down I/⏻, and enter the manufacturer code (see the table below) for your AV amplifier (receiver) using the number buttons.
- 3 Release I/⏻.

The \triangleleft (volume) +/- buttons control the AV amplifier's volume.

If you want to control the TV's volume, slide the TV/DVD switch to TV.

Hint

If you want to control the TV's volume even when the TV/DVD switch is set to DVD, repeat the steps above and enter the code number 90 (default).

Code numbers of controllable AV amplifiers (receivers)

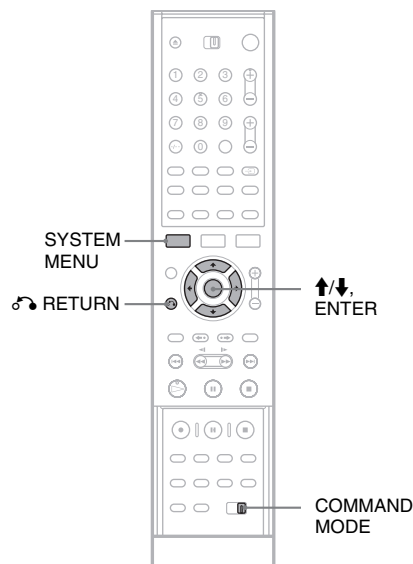
If more than one code number is listed, try entering them one at a time until you find the one that works with your AV amplifier (receiver).

Manufacturer	Code number
Sony	78, 79, 80, 91
Denon	84, 85, 86
Kenwood	92, 93
Onkyo	81, 82, 83
Pioneer	99
Sansui	87
Technics	97, 98
Yamaha	94, 95, 96

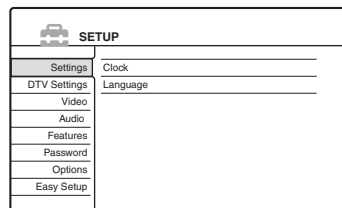
If you have a Sony DVD player or more than one Sony DVD recorder

If the supplied remote interferes with your other Sony DVD recorder or player, set the command mode number for this recorder and the supplied remote to one that differs from the other Sony DVD recorder or player.

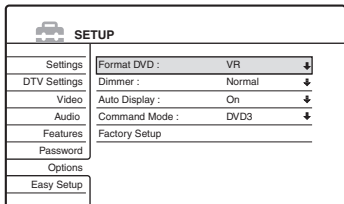
The default command mode setting for this recorder and the supplied remote is DVD3.



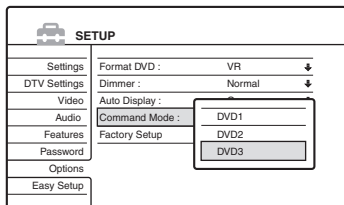
- 1 Press SYSTEM MENU.
The System Menu appears.
- 2 Select "SETUP," and press ENTER.



3 Select "Options," and press ENTER.



4 Select "Command Mode," and press ENTER.



5 Select the Command mode (DVD1, DVD2, or DVD3), and press ENTER.

6 Slide the COMMAND MODE switch on the remote so it matches the mode you selected above.

To return to the previous step
Press RETURN.

Step 7: Easy Setup

Follow the steps below to make the minimum number of basic adjustments for using the recorder. If you do not complete Easy Setup, it will appear each time you turn on your recorder. Settings are made in the following order.

Hint

Information on coverage and aerial upgrades can be found on the following Freeview website, www.freeview.co.uk

Auto Tune Setup



Clock Setup



TV Type Setup



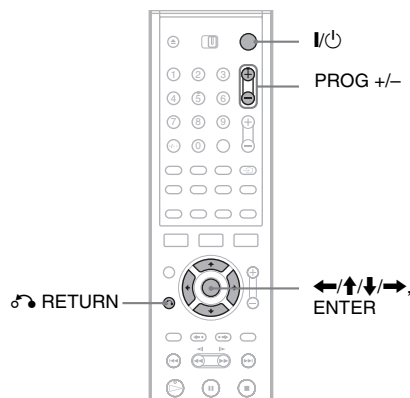
Video Connection Setup



Audio Connection Setup



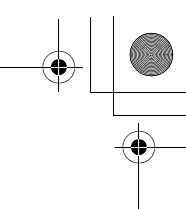
Finished!



1 Turn on the TV.

2 Press I/Power.

The recorder turns on.



3 Switch the input selector on your TV so that the signal from the recorder appears on your TV screen.

“Initial settings necessary to operate the DVD recorder will be made. You can change them later using Setup.”

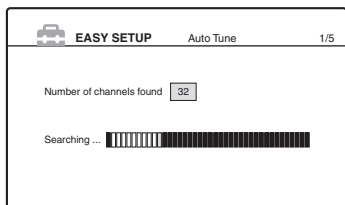
Before you start, check that you have made all necessary connections.

If you have preset any timer recordings they will be erased.” appears.

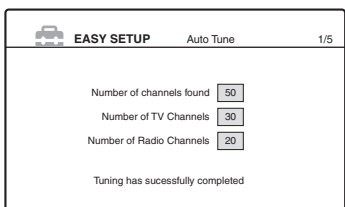
- If this message does not appear, select “Easy Setup” from “SETUP” in the System Menu to run Easy Setup. For details, see “Settings and Adjustments” (page 76).

4 Select “Start,” and press ENTER.

The Auto Tune display appears showing a tuning progress bar and the number of channels found.

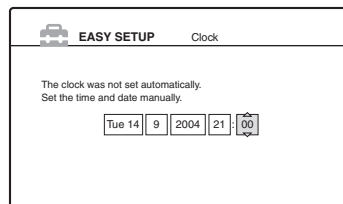


When Auto Tune has ended, a completion display appears indicating the number of TV and Radio channels that have been found and stored.



To set the channels manually, see page 80.

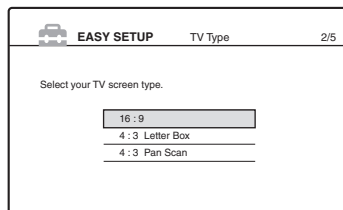
5 In case the current time and date could not be set automatically thanks to your local stations time signal broadcasts, the display for setting the clock manually appears.



Set the clock manually using ←/↑/↓/→.

6 Press ENTER.

The TV Type Setup Display appears.



7 Select the setting that matches your TV type.

“16:9”: For wide-screen TVs or standard TVs with a wide screen mode.

“4:3 Letter Box”: For standard TVs.

Displays “wide screen” pictures with bands on the upper and lower sections of the screen.

“4:3 Pan Scan”: For standard TVs.

Automatically displays “wide screen” pictures on the entire screen and cuts off the sections that do not fit.

For details, see “TV Type” on page 82.

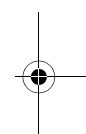
8 Press ENTER.

The Setup Display for the component out jacks appears.

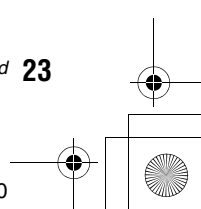
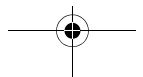
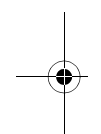
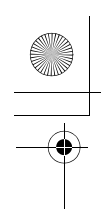
9 Select an option.

Select “On” if you are using the COMPONENT VIDEO OUT jacks. Otherwise, select “Off.”

Hookups and Settings

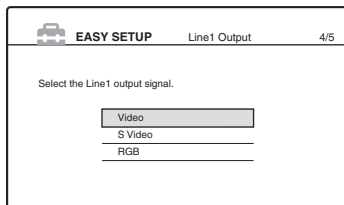


→ continued 23



10 Press ENTER.

The Setup Display for selecting the type of video signal output from the LINE 1-TV jack appears.



11 Select the type of signal you want to output from the LINE1-TV jack.

“Video”: Outputs video signals.

“S Video”: Outputs S video signals.

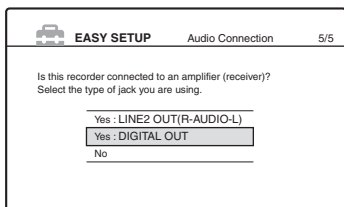
“RGB”: Outputs RGB signals.

Note that if you select “On” in step 9, you cannot select “RGB.”

- If you select “S Video” or “RGB,” SMARTLINK will be deactivated.

12 Press ENTER.

The Setup Display for selecting the type of jack used to connect to your amplifier (receiver) appears.



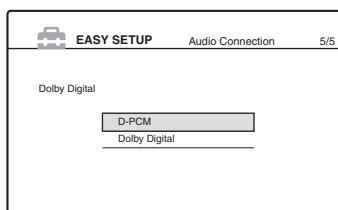
13 Select the type of jack (if any) you are using to connect to an amplifier (receiver), and press ENTER.

If you did not connect an AV amplifier (receiver), select “No,” then go to step 16.

If you connected an AV amplifier (receiver) using just an audio cord, select “Yes: LINE 2 OUT (R-AUDIO-L),” then go to step 17.

If you connected an AV amplifier (receiver) using either a digital optical or coaxial cord, select “Yes: DIGITAL OUT.”

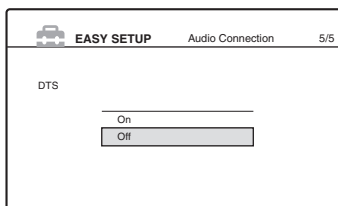
14 Select the type of Dolby Digital signal you wish to send to your amplifier (receiver).



If your AV amplifier (receiver) has a Dolby Digital decoder, select “Dolby Digital.” Otherwise, select “D-PCM.”

15 Press ENTER.

The Setup Display for the DTS signal appears.

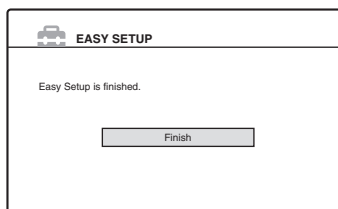


16 Select whether or not you wish to send a DTS signal to your amplifier (receiver), and press ENTER.

If your AV amplifier (receiver) has a DTS decoder, select “On.” Otherwise, select “Off.”

17 Press ENTER when “Finish” appears.

Easy Setup is finished. All connections and setup operations are complete.

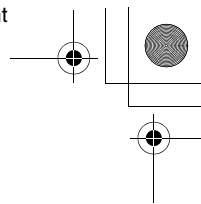
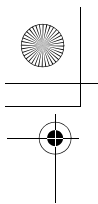


To return to the previous step

Press RETURN.

Hints

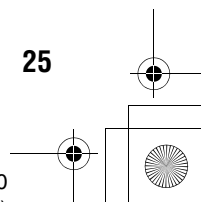
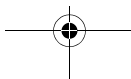
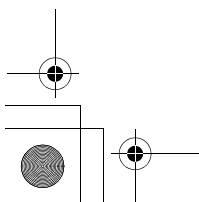
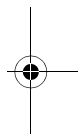
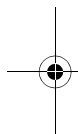
- If your AV amplifier (receiver) has an MPEG audio decoder, set “MPEG” to “MPEG” (page 86).
- If you want to run Easy Setup again, select “Easy Setup” in the Setup Display (page 90).



Note

To record TV programmes using the timer, you must set the clock accurately.

Hookups and Settings



Connecting a VCR or Similar Device

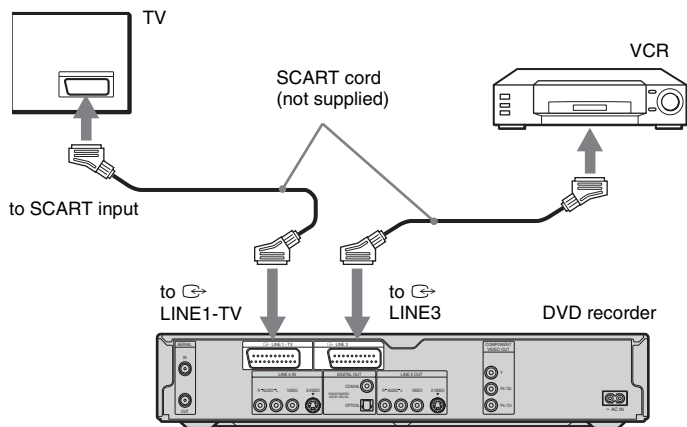
After disconnecting the recorder's mains lead from the mains, connect a VCR or similar recording device to the LINE IN jacks of this recorder.

See also the instruction manual supplied with the connected equipment.

To record on this recorder, see "Recording From Connected Equipment Without a Timer" (page 57).

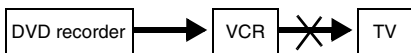
Connecting to the LINE 3 jack

Connect a VCR or similar recording device to the LINE 3 jack of this recorder.

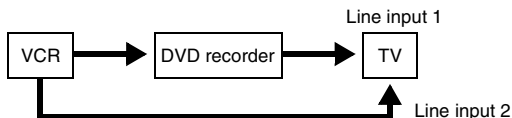


Notes

- Pictures containing copy protection signals that prohibit any copying cannot be recorded.
- If you pass the recorder signals via the VCR, you may not receive a clear image on your TV screen.



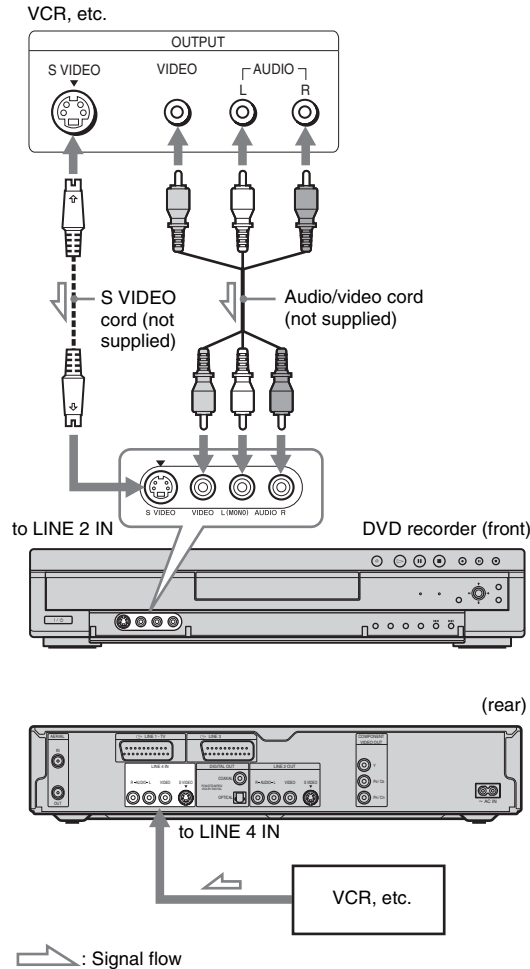
Be sure to connect your VCR to the DVD recorder and your TV in the order shown below. To watch video tapes, watch the tapes through a second line input on your TV.



- The SMARTLINK features are not available for devices connected via the DVD recorder's LINE 3 jack.
- When you record to a VCR from this DVD recorder, do not switch the input source to TV by pressing the TV/DVD button on the remote.
- If you disconnect the recorder's mains lead, you will not be able to view the signals from the connected VCR.

Connecting to the LINE 2 IN or LINE 4 IN jacks

Connect a VCR or similar recording device to the LINE 2 IN or LINE 4 IN jacks of this recorder. If the equipment has an S-video jack, you can use an S-video cord instead of an audio/video cord.



Hint

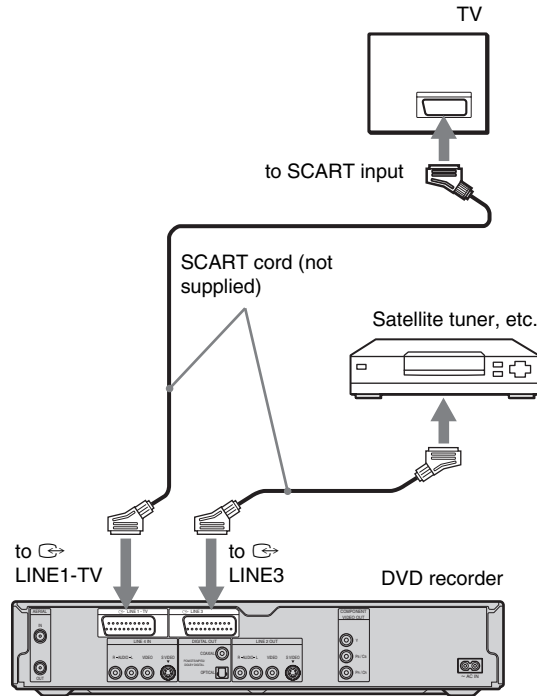
When the connected equipment outputs only monaural sound, use audio cables that distribute monaural sounds to left/right channels (not supplied).

Notes

- Do not connect the yellow LINE IN (VIDEO) jack when using an S-video cord.
- Do not connect the output jack of this recorder to another equipment's input jack with the other equipment's output jack connected to the input jack of this recorder. Noise (feedback) may result.
- Do not connect more than one type of video cord between the recorder and your TV at the same time.

Connecting to a Satellite or Digital Tuner

Connect a satellite or digital tuner to this recorder using the LINE 3 jack. Disconnect the recorder's mains lead from the mains when connecting the tuner.
To use the Synchro-Rec function, see below.



If the satellite tuner can output RGB signals

This recorder accepts RGB signals. If the satellite tuner can output RGB signals, connect the TV SCART connector on the satellite tuner to the LINE 3 jack, and set "Line3 Input" of "Scart Setting" to "Video/RGB" in Video Setup (page 83). Note that this connection and setup disable the SMARTLINK function. If you want to use the SMARTLINK function with a compatible set top box, see the instructions supplied with the set top box.

If you want to use the Synchro Rec function

This connection is necessary to use the Synchronized Recording function. See "Recording From Connected Equipment With a Timer (Synchro Rec)" (page 55).

Set "Line3 Input" of "Scart Setting" in Video Setup (page 83) according to the specifications of your satellite tuner. See your satellite tuner's instructions for more information.

If you are using a B Sky B tuner, be sure to connect the tuner's VCR SCART jack to the LINE 3 jack. Then set "Line3 Input" of "Scart Setting" according to the specifications of the VCR SCART jack on your satellite tuner.

Notes

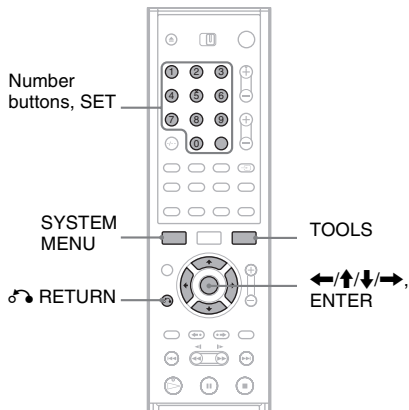
- Synchronized Recording does not work with some tuners. For details, see the tuner's operating instructions.
- If you disconnect the recorder's mains lead, you will not be able to view the signals from the connected tuner.

Guide to Displays

Using the On-Screen Menus

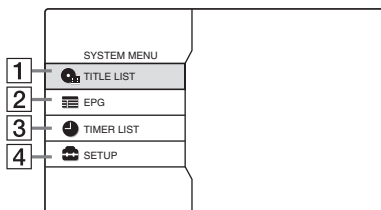
+RW -RWVR -RWVideo +R -R DVD
VCD CD DATA CD

This section introduces the System Menu, TOOLS menu, and sub-menu. By using these displays, you can perform most of the recorder's operations.



System Menu

The System Menu appears when you press SYSTEM MENU, and provides entries to all of the recorder's main functions, such as timer recording and setup. Select an option by pressing \uparrow/\downarrow and ENTER.



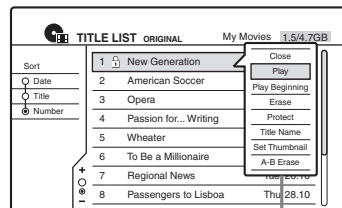
- 1 TITLE LIST (page 30): Turns on the Title List menu, which shows recorded titles on the disc.

- 2 EPG (page 38): Turns on the Electronic Programme Guide display that allows you to view a complete list of all available channels and to set a programme to be recorded.
- 3 TIMER LIST (page 51): Turns on the Timer List menu, which allows you to check, change, or cancel timer settings.
- 4 SETUP (page 76): Turns on the Setup Display, which allows you to set up the recorder to suit your preferences.

Sub-menu

The sub-menu appears when you select an item from a list menu (e.g. a title from the Title List menu), and press ENTER. The sub-menu displays options applicable only to the selected item. The displayed options differ depending on the situation and disc type. Select an option by pressing \uparrow/\downarrow and ENTER.

Example: The Title List menu

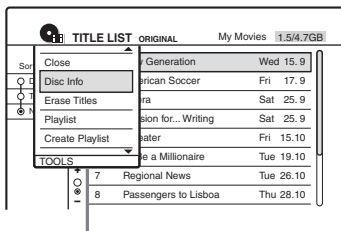


TOOLS

The TOOLS menu appears when you press TOOLS, and displays options applicable to the entire disc (e.g. disc protection), recorder (e.g. audio settings during recording), or multiple items on a list menu (e.g. erasing multiple titles). The displayed options differ depending on the situation and disc type.

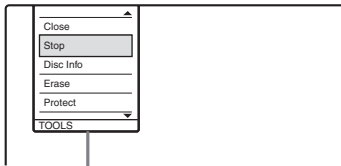
Select the option by pressing \uparrow/\downarrow and ENTER.

Example 1: When you press TOOLS while the Title List menu is turned on.



Options for the disc or menu

Example 2: When you press TOOLS while a DVD-RW (VR mode) is playing.



Options for the disc or picture

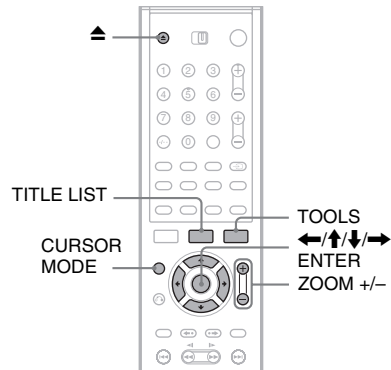
To return to the previous display

Press \leftarrow RETURN.

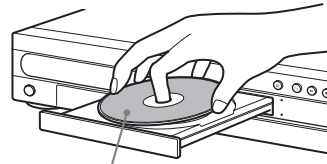
Using the Title List

+RW **-RW/VR** **-RW/video** **+R** **-R**

The titles of programmes recorded on a disc are displayed in the Title List.



1 Press \triangle (open/close), and place a disc on the disc tray.



With the recording side facing down

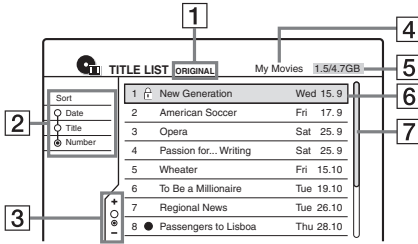
2 Press \triangle (open/close) to close the disc tray.

Wait until "LOAD" disappears from the front panel display.

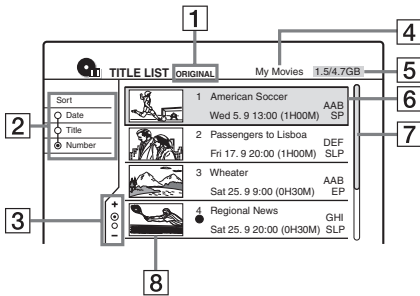
3 Press TITLE LIST.

To show the list in greater detail (zoom), press ZOOM+.

Standard Title List (Example: DVD-RW in VR mode)



“Zoomed” Title List



- 1 Title type (DVD-RW in VR mode only):
Displays the title type, Original or Playlist.
- 2 Sort buttons:
Sorts the title order (see below).
- 3 Zooming indicator:
Shows the current zoom status.
- 4 Disc name (page 33)
- 5 Disc space (remainder/total)
- 6 Title information:
Displays the title number, title name, and recording date.
● (red): Indicates that the title is currently being recorded.
🔒: Indicates the protected title.
- 7 Scroll bar:
Appears when all of the titles do not fit on the list. To view the hidden titles, press \uparrow/\downarrow .
- 8 Title's thumbnail picture

To scroll the list display by page (Page mode)

Press CURSOR MODE while the list display is turned on. The display enters Page mode. Each time you press \uparrow/\downarrow , the entire Title List changes to the next/previous page of titles.

To return to the Cursor mode, press CURSOR MODE again.

About the Title List for DVD-RWs (VR mode)

You can switch the Title List to show Original or Playlist.

While the Title List menu is turned on, press TOOLS and select either “Original” or “Playlist,” and press ENTER. “PLAYLIST” appears on the front panel display when “Playlist” is selected. For details, see “Edit options for DVD-RWs (VR mode)” (page 68).

To change the title order (Sort)

Press \leftarrow while the Title List menu is turned on to move the cursor to the Sort column. Press \uparrow/\downarrow to select the item, and press ENTER.

Order	Sorted
Date	in order of when the titles were recorded. The title that is recorded most recently is listed at the top.
Title	in alphabetical order.
Number	in order of recorded title number.

To change a title thumbnail picture (Thumbnail) (DVD-RW in VR mode only)

You can select a favourite scene for the thumbnail picture shown in the Title List menu.

- 1 Press TITLE LIST while a disc is in the recorder and press ZOOM+.
- 2 Select a title whose thumbnail picture you want to change, and press ENTER.
- 3 Select “Set Thumbnail” from the sub-menu, and press ENTER.
The selected title starts to play in the background.
- 4 While watching the playback picture, press \triangleright , \parallel , or $\triangleleft/\triangleright$ to select the scene you want to set for a thumbnail picture, and press ENTER.
The scene is set for the title's thumbnail picture.

To turn off the Title List

Press TITLE LIST.

Hint

After recording, the first scene of the recording (the title) is automatically set as the thumbnail picture.

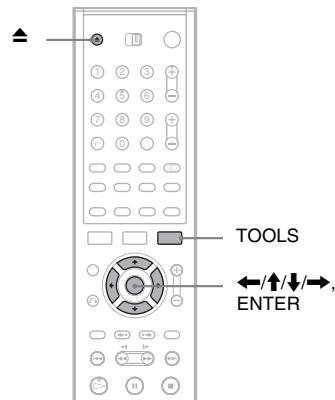
Notes

- The Title List may not appear for discs created on other DVD recorders.
- Letters that cannot be displayed are replaced with an “*.”
- Title thumbnail pictures are displayed only on this recorder.
- It may take a few seconds for the thumbnail pictures to be displayed.
- After editing, the title thumbnail picture may change to the first scene of the recording (title).

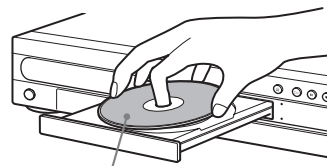
Using the “Disc Info” Screen (disc settings)

+RW -RWVR -RWVideo +R -R

With the Disc Information display, you can check the disc type and remaining disc space. Also, you can perform operations such as formatting and finalizing (page 33).



- 1 Press \blacktriangle (open/close), and place a disc on the disc tray.**



With the recording side facing down

- 2 Press \blacktriangle (open/close) to close the disc tray.**

Wait until “LOAD” disappears from the front panel display.

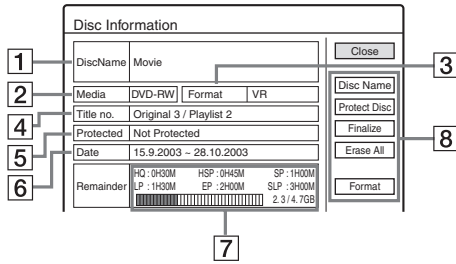
- 3 Press TOOLS.**

The TOOLS menu appears.

- 4 Select “Disc Info,” and press ENTER.**

Items in the display differ depending on the disc type or recording format.

Example: DVD-RW (VR mode)



- 1 “Disc Name”
- 2 “Media”: Disc type
- 3 “Format”: Recording format type (DVD-RW only)
- 4 “Title no.”: Total number of titles
- 5 “Protected”: Indicates whether protection is set (DVD-RW in VR mode only)
- 6 “Date”: Dates of when the oldest and the most recent titles were recorded
- 7 “Continuous Rem. Time”/“Remainder” (approximate)
 - The longest continuous recording time in each of the recording modes
 - Disc space bar
 - Remaining disc space/total disc space
- 8 Disc setting buttons (page 33)
 - “Disc Name”
 - “Protect Disc”
 - “Finalize”/“Unfinalize”
 - “Erase All”
 - “Format”Available settings differ depending on the disc type.

Hint

For DVD+RWs and DVD-RWs (Video mode), you can check free space and title location on the disc using the Disc Map display (page 71).

Note

On this model, 1 GB (read “gigabyte”) is equivalent to 1 billion bytes. The larger the number, the larger the disc space.

Labelling, protecting, or formatting a disc

+RW -RWVR -RWVideo +R -R

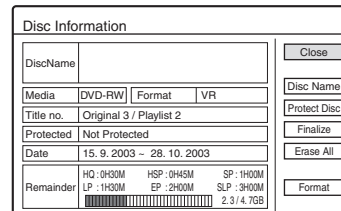
You can execute options effective for the entire disc using the Disc Information display.

1 Press TOOLS while the disc is in the recorder.

The TOOLS menu appears.

2 Select “Disc Info,” and press ENTER.

Example: When the inserted disc is a DVD-RW (VR mode).



3 Select an option, and press ENTER.

“Disc Name”: Labels a disc. Enter the disc name in the “Input Disc Name” display (page 37).

“Protect Disc” (DVD-RW in VR mode only): Protects all titles on the disc. To cancel the protection, select “Don’t Protect.”

“Erase All” (DVD+RW/DVD-RW only): Erases all titles on the disc (except the protected titles).

“Format” (DVD+RW/DVD-RW only): Erases all contents of the disc to make a blank disc. For DVD-RWs, select a recording format (VR or Video) according to your needs.

Hints

- You can set protection for individual titles (page 69).
- By reformatting, you can change the recording format on DVD-RWs, or record again on DVD-RWs (Video mode) that have been finalized.

Note

You can enter up to 64 characters for a disc name. The disc name may not appear when the disc is played on other DVD equipment.

Finalizing a disc (preparing a disc for playback on other equipment)

+RW **-RWVR** **-RW_{Video}** **+R** **-R**

Finalizing is necessary when you play discs recorded with this recorder on other DVD equipment.

When you finalize a DVD+RW, DVD-RW (Video mode), DVD+R, or DVD-R, a DVD menu will be automatically created, which can be displayed on other DVD equipment.

Before finalizing, check the differences between the disc types in the table below.

Differences between the disc types

+RW Discs are automatically finalized when removed from the recorder. However, you may need to finalize the disc for certain DVD equipment, or if the recording time is short. You can edit or record on the disc even after finalizing.

-RWVR Finalizing is unnecessary when playing a disc on VR format compatible equipment. Even if your other DVD equipment is VR format compatible, you may need to finalize the disc, especially if the recording time is short. You can edit or record on the disc even after finalizing.

-RW_{Video} Finalizing is necessary when playing on any equipment other than this recorder. After finalizing, you cannot edit or record on the disc. If you want to record on it again, reformat the disc (page 33). However, all recorded contents will be erased.

+R Finalizing is necessary when playing on any equipment other than this recorder.
-R After finalizing, you cannot edit or record on the disc.

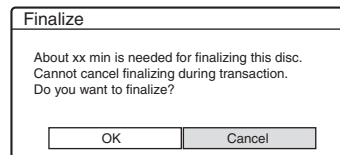
1 Press **TOOLS** while the disc is in the recorder.
The **TOOLS** menu appears.

2 Select **"Disc Info,"** and press **ENTER**.

The Disc Information display appears.

3 Select **"Finalize,"** and press **ENTER**.

The display shows the approximate time required for finalizing and asks for confirmation.



4 Select **"OK,"** and press **ENTER**.

The recorder starts finalizing the disc.

To unfinalize a DVD-RW (VR mode)

If you cannot record or edit on a DVD-RW (VR mode) that has been finalized with other DVD equipment (a message appears), unfinalize the disc by selecting "Unfinalize" in step 3 above.

Hint

You can check whether the disc has been finalized or not. If you cannot select "Finalize" in step 3 above, the disc has already been finalized.

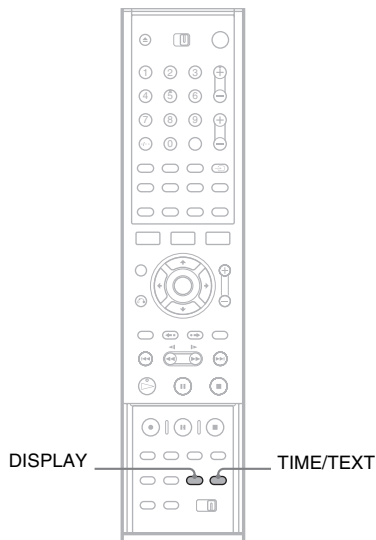
Notes

- Depending on the condition of the disc, recording, or the DVD equipment, discs may not play even if the discs are finalized.
- The recorder may not be able to finalize the disc if it was recorded on another recorder.

Checking the Play Information and Playing Time

+RW -RWVR -RWVideo +R -R DVD
VCD CD DATA CD

You can check the playing time and remaining time of the current title, chapter, or track. Also, you can check the disc name recorded on the disc.



Press DISPLAY repeatedly.

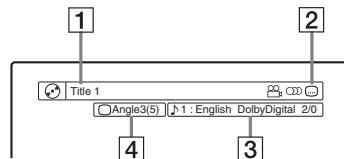
Each time you press the button, the display changes as follows:

- Title/track information (Display 1)
- ↓
- Play mode/time information (Display 2)
- ↓
- (Display off)

The displays differ depending on the disc type or playing status.

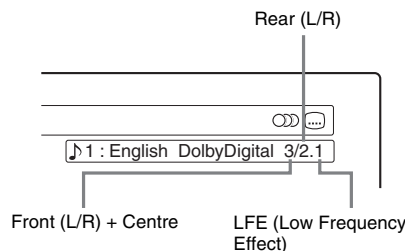
◆ Display 1

Example: When playing a DVD VIDEO



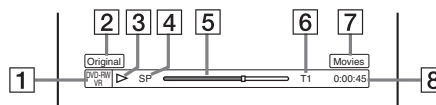
- 1** Title number/name
(Track number for CDs/VIDEO CDs without PBC, scene number for VIDEO CDs with PBC, track number/name for DATA CDs)
- 2** Available functions for DVD VIDEOS
(∞ angle/∞ audio/... subtitle, etc.)
- 3** The current selected function or audio setting (appears only temporarily)
- 4** The current selected angle

Example: Dolby Digital 5.1 ch



◆ Display 2

Example: When playing a DVD-RW (VR mode)



- 1** Disc type*²/format (page 8)
- 2** Title type (Original or Playlist) (page 68)
- 3** Play mode
- 4** Recording mode (page 45)
- 5** Playing status bar*³
- 6** Title number (chapter number*¹) (page 65)
(Track number for CDs/VIDEO CDs without PBC, scene number for VIDEO CDs with PBC, track number (album number*¹) for DATA CDs)
- 7** CD text (album name) (when text is recorded on a CD)

8 Playing time (remaining time*¹)

*¹ Displayed when you press TIME/TEXT repeatedly.

*² Displays Super VCDs as "SVCD", DATA CDs as "CD."

*³ Does not appear with VCDs, or DATA CDs.

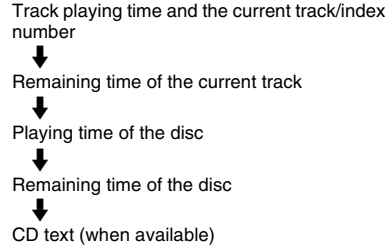
Hints

- If "DTS" is set to "Off" in Audio Setup, the DTS track selection option will not appear on the screen even if the disc contains DTS tracks (page 85).
- When "Auto Display" is set to "On" (default) in Options Setup (page 90), playback information automatically appears when the recorder is turned on, etc.

Notes

- The recorder can only display the first level of a CD's text, such as the disc name.
- The letters or symbols that cannot be displayed are replaced with "*".

Example: When playing a CD



Notes

- The recorder can only display the first level of a CD's text, such as the disc name.
- The letters or symbols that cannot be displayed are replaced with "*".
- Playing time of MP3 audio tracks may not be displayed correctly.

Checking the playing/remaining time

You can view the playing or time information displayed on the TV screen and the front panel display.

Press TIME/TEXT repeatedly.

The displays differ depending on the disc type or playing status.

◆ Front panel display

Example: When playing a DVD

Playing time and number of the current title

T 1 1:03:24



Remaining time of the current title

T 1 - 1:15:36



Playing time and number of the current chapter

C 2 0:22:30

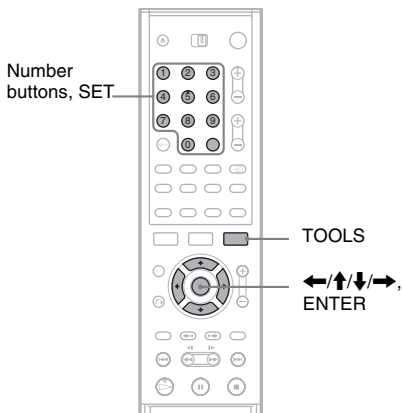


Remaining time of the current chapter

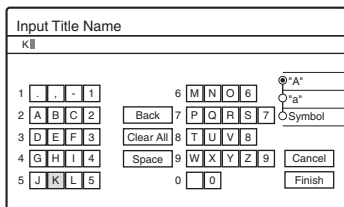
C 2 - 0:13:20

How to Enter Characters

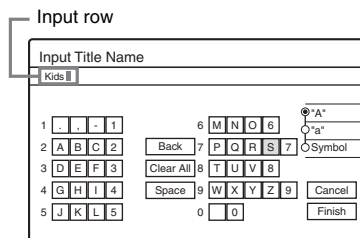
You can label a title, disc, or program by entering characters. You can enter up to 64 characters for a title or disc name, but the actual number of characters displayed in the menus such as the Title List will vary. When the display for entering characters appears, follow the steps below.



- 1 Press **←/↑/↓/→** to move the cursor to the right of the screen and select **"A"** (upper-case), **"a"** (lower-case), or **"Symbol,"** and press **ENTER**.
The characters of the selected type are displayed.
- 2 Press **←/↑/↓/→** to select the character you want to enter, and press **ENTER**.
The selected character appears at the top of the display.
Example: Input Title Name



- 3 Repeat steps 1 and 2 to enter the remaining characters.



To erase a character, move the cursor to the right of the character at the input row. Select **"Back"** and press **ENTER**.

To insert a character, move the cursor to the right of the point where you want to insert the character. Select the character and press **ENTER**.

To erase all of the characters, select **"Clear All"** and press **ENTER**.

- 4 Select **"Finish,"** and press **ENTER**.

To cancel the setting, select **"Cancel."**

To use the number buttons

You can also use the number buttons to enter characters.

- 1 In step 2 above, press a number button repeatedly to select a character.
Example:
Press the number 3 button once to enter **"D."**
Press the number 3 button three times to enter **"F."**
- 2 Press **SET** and select the next character.
- 3 Select **"Finish"** and press **ENTER**.

Guide to Digital Services

Note

Digital Services availability depends on the broadcaster. Digital Services are not instantly available when the recorder is first turned on.

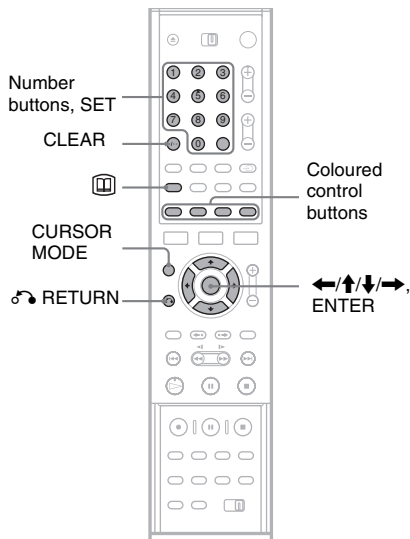
Digital Services data are obtained when the recorder is in standby mode. This may take up to 30 minutes during which the standby indicator flashes to indicate that data is being obtained. When the flashing stops, press the **I/⏻** button to exit standby mode, then proceed as follows.

EPG (Electronic Programme Guide)

The EPG provides a quick and easy way to:

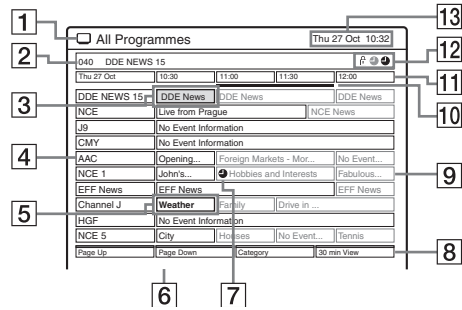
- View a complete list of all available channels.
- View a channel list related to a chosen category.
- Set a programme to be recorded (page 48).

Viewing a list of available channels



- 1 Press the **□** button to display the EPG. This display consists of an information box and a ten channel programme list covering a two hour period.

Example of EPG Display:



- 1 Indicates the TV or Radio mode. The Radio mode is indicated by a Radio icon
- 2 Indicates the Local Channel Number and the Channel name of the programme that is currently highlighted in the list
- 3 Indicates the currently highlighted programme and allows you to move around the list
- 4 Channel name
- 5 Indicates the programme currently on view in the background
- 6 Programme on view in the background
- 7 Indicates if a timer recording is associated to the event (page 48)
- 8 Coloured Control button
- 9 Truncated programme title in case the name is too long to be displayed in the cell
- 10 Event bar (e.g. Indicates a timer recording has been set during this time)
- 11 Time slot
- 12 Icon tray. Depending on the channel and programme settings some icons may appear in the display:
 - : The channel on the programme is locked (page 78)
 - : Timer event icons (page 48)
- 13 Indicates the current time and date

2 Press the **←/↑/↓/→** buttons or enter a channel number using the number buttons to move around the list.

If you press the **→** button after highlighting the last programme on the right, the schedule for the next two hours is displayed (depending on availability from the broadcaster).

All Programmes		Thu 27 Oct 10:32	
040	DDE NEWS 15		
Thu 27 Oct	10:30	11:00	11:30 12:00
DDE NEWS 15	DDE News	DDE News	DDE News
NCE	Live from Prague		NCE News
J9	No Event Information		
CMY	No Event Information		
AAC	Opening...	Foreign Markets - Mor...	No Event...
NCE 1	John's...	Hobbies and Interests	Fabulous...
EFF News	EFF News		EFF News
Channel J	Weather	Family	Drive in ...
HGF	No Event Information		
NCE 5	City	Houses	No Event... Tennis
Page Up	Page Down	Category	30 min View

3 Press the **BLUE** button to toggle the display between the 2 hours schedule viewing (half hour time slots) and the 30 minutes schedule viewing (15 minutes time slots).

4 Press the **RED** button to display the previous ten channels or the **GREEN** button to display the next ten channels.

5 Select a current time broadcasted programme you wish to view. Once highlighted, press the **ENTER** button to obtain a preview in the background.

6 Press **ENTER** once more to exit the EPG and view the programme.

Hints

- If you press the **CURSOR MODE** button on the remote control when the EPG is on display, you have the option to view the programme schedule 24 hours in advance (when available).
- Press the **BLUE** button to view the next 24 hour schedule.
- Press the **YELLOW** button when you wish to return to the previous days schedule.
- The time range can be moved up to 8 days from the current time.

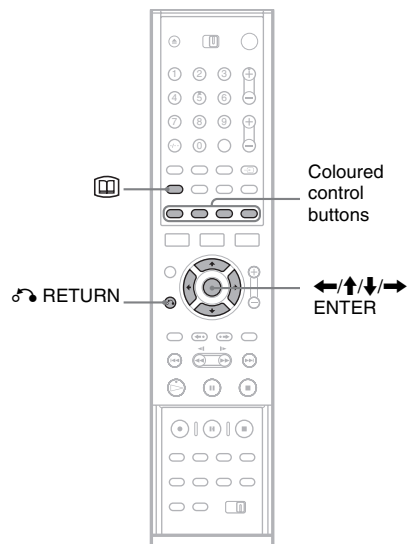
Viewing channels related to a specific category.

This feature allows you to search for channels related to a particular topic. For example, if you select 'News' from the category pop-up list, then only channels related to News will be shown in the EPG.

Note

The category of each programme is determined by the broadcaster.

Guide to Digital Services



- 1** Press the **EPG** button to display the EPG.
- 2** Press the **YELLOW** button. The category pop-up list appears.

All Programmes		Thu 27 Oct 10:32	
040	DDE NEWS 15		
Thu 27 Oct	10:30	11:00	11:30 12:00
DDE NEWS 15	DDE News	DDE News	DDE News
NCE	Live from Prague		NCE News
J9	No Event Information		
CMY	No Event Information		
AAC	Opening...	For...	For...
NCE 1	John's...	Hob...	Hob...
EFF News	EFF News		EFF News
Channel J	Weather	Fam...	Fam...
HGF	No Event Information		
NCE 5	City	Hou...	Hou...
		Back	

3 Press the **↑/↓** buttons to highlight the category you want, then press the **ENTER** button.

→ continued 39

The chosen category is displayed in a title bar at the top of the EPG display and only programmes related to that category will be shown in the list.

◆ **Some examples of category types are as follows:**

All Programmes: This gives a complete channel list.

Favourite List 1: Displays the favourite channels you have stored in the Favourite list 1 folder (page 42).

Films: Displays movies available for viewing.

News: Displays all news channels.

Entertainment: Displays all entertainment channels.

Sports: Displays all sports channels.

Kids: Displays all children's channels.

Music: Displays all music channels.

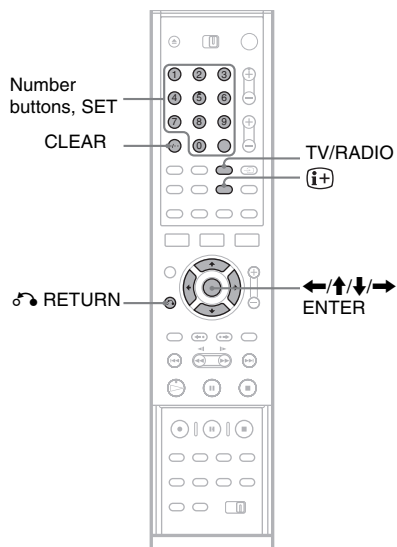
- 4** Press the **↑/↓** buttons to highlight the programme you wish to view, then press the **ENTER** button to exit the category menu and view the selected programme.

Programme information

The programme information display provides a quick and easy way to:

- View descriptions of the programmes being broadcast now and next on the current channel.
- View descriptions of the programmes being broadcast now and next on the other channels.
- Switch between TV and RADIO channels.
- Preview another channel in the background or change to that channel.

Displaying the programme information

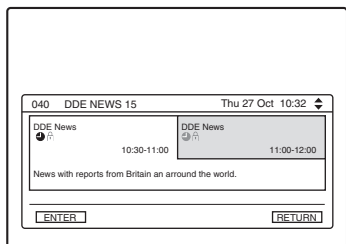


- 1** Press the **i+** button to display the programme information screen.

The display consists of an information box showing a description of the current programme and the name of the next programme on that channel.

- 2** Press the **↑/↓** buttons or enter a channel number using the number buttons to display programme information on other channels.

Press the **ENTER** button if you wish to obtain a preview of the chosen channel.



- 3** Press the TV/RADIO button to switch between the TV and Radio channels
- 4** Press the ←/→ buttons to toggle the display between a description of the current programme and the next programme on a channel.
- 5** When viewing information for the currently displayed channel, press the ENTER button to exit the information display and view the programme.

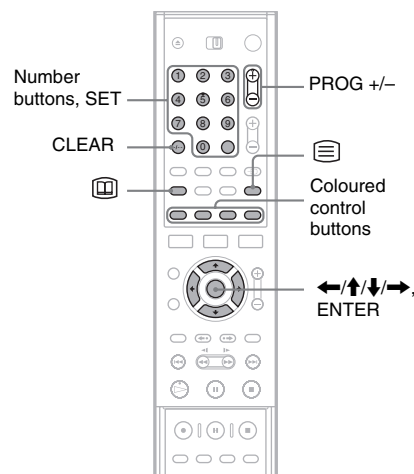
Viewing a digital text service


Many digital TV channels broadcast information via their text service. This digital service includes high quality digital text and graphics along with advanced navigation options. Additionally, this recorder has access to dedicated text channels transmitted by the broadcasters.

Note

The appearance, content and navigation methods of all digital text services are decided by the broadcaster.

Selecting digital text from dedicated digital teletext channels




- 1** Select a dedicated channel that is broadcasting digital text.
If you do not know the number of a dedicated digital text channel, you can use the 'Electronic Programme Guide' by pressing the  button to find one (page 38).
- 2** Once the text page is displayed (this may take some time), follow the on-screen instructions to obtain your required selection.
On some pages the TV programme may also be displayed on the text screen. On-screen instructions will inform you how to change the displayed programme.

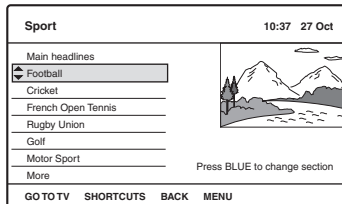
→ continued 41





- 3** If you are instructed to press 'OK' or 'Select' when viewing the text pages, press the ENTER button.
- 4** When you have finished viewing the text service, follow the on screen instructions, or press the PROG +/- button to exit.

Selecting digital text from other channels

Digital text services may also be available on other digital channels. This is sometimes indicated by a small symbol on your TV screen, superimposed on the programme you are watching.

- 1** Select a channel.
- 2** Press the  button or RED button or the button indicated on screen by the broadcaster.



- 3** Once the text information is displayed, you can access required information by using the , , ,  buttons, the coloured buttons and/or the numbered buttons on the remote control.

If you are instructed to press 'OK' or 'Select' when viewing the text pages, press the ENTER button on your remote control.

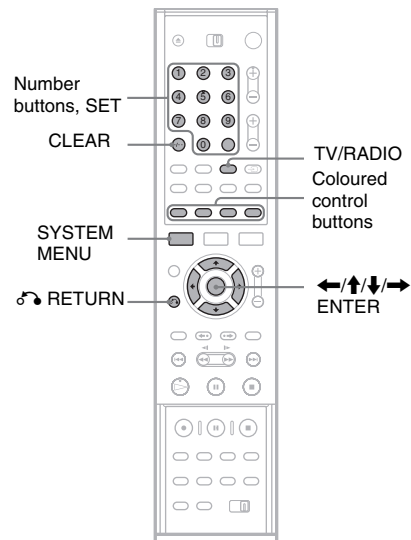
- 4** When you have finished viewing the text service displays, follow the on screen instructions, or press the PROG +/- button to exit.

Favourites

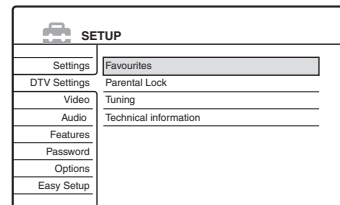
The Favourite application gives you the option to:

- Store your favourite channels into one of four TV or four Radio lists.
- Add or delete channels to the Favourites List.
- Quickly display a favourite channel on screen.

Setting a favourite list

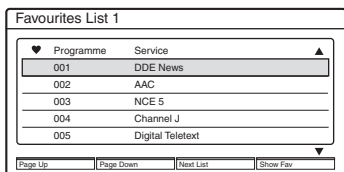


- 1** Press SYSTEM MENU.
The System Menu Display appears.
- 2** Select "SETUP," and press ENTER.
The Setup Display appears.
- 3** Select "DTV Settings," and press ENTER.




4 Select "Favourites," and press ENTER

The DTV Settings- Favourites List 1 display appears.

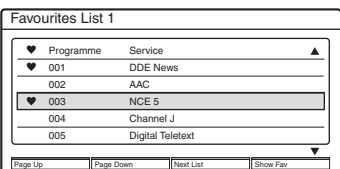


This display shows all the TV or Radio channels available to you.

5 Press the TV/RADIO button to display either your favourite TV or favourite Radio channels at any time.



The Radio mode is indicated by the presence of a Radio icon  in the Favourites List panel.

6 Press the \uparrow/\downarrow buttons or enter a channel number to highlight a channel you want to add as a favourite, then press the ENTER button.



If you do not wish to choose from one of the five channels in the display, press the RED or GREEN button to view the previous or next five channels available.

Deleting a favourite channel

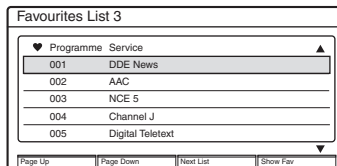
A channel selected as a favourite is identified by an  icon next to the programme number. In Step 6 above press the \uparrow/\downarrow buttons to highlight the channel you want to delete from your Favourites List, then press ENTER: the  icon next to the programme number disappears.

Hints

- Press the BLUE button to view the list showing only your favourite channels.
- Press the BLUE button once again when you wish to return to the previous favourite channel setting display.

Moving to a different favourite list

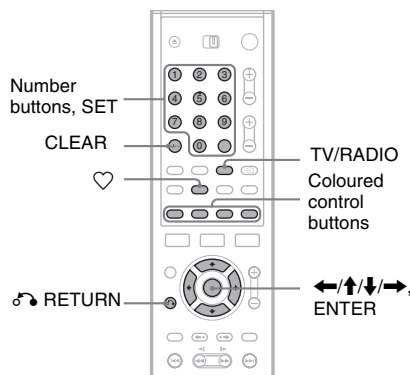
1 While a Favourites List is displayed, press repeatedly the YELLOW button on the remote control until the favourite list you want to view is displayed.



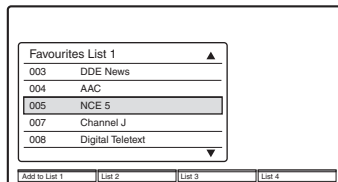
2 To add a channel to this new list, press the \uparrow/\downarrow button to highlight the channel you wish to add and press the ENTER button.

3 When you have stored all your favourite channels, press the RETURN button repeatedly to come back to normal operation.

Watching or listening to a favourite channel




1 While in normal operation mode, press the button on the remote control. A Favourite list display appears.



Each favourite list is represented by a coloured button.

2 Press the TV/RADIO button to display either your favourite TV or favourite Radio channels at any time.

The Radio mode is indicated by the presence of a Radio icon  in the Favourites List panel.

3 Press the coloured button on the remote control that represents the desired list to be displayed.

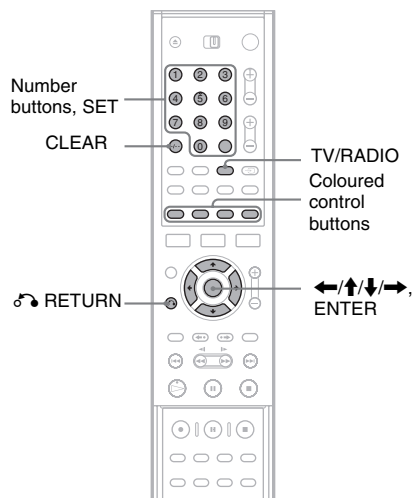
4 Press the  button to highlight the channel you wish to view or listen to, then press the ENTER button.

Hint

If you wish, the channel on view in the background can be added to the favourite list. Simply press the coloured button indicated in the display to add it to the list.

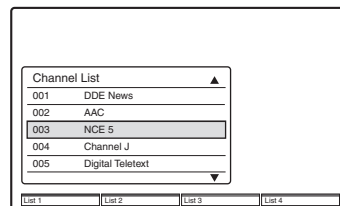
Index

The Index application is an easy way to display a scrollable list of all the tuned channels, including your favourites channel lists, and allows one of these to be selected.




1 While in normal operation mode, press the ENTER button on the remote control.


The Index display appears.



2 Press the TV/RADIO button to display either the TV or the Radio channels at any time.

The Radio mode is indicated by the presence of a Radio icon  in the Index panel.

3 Press the coloured button on the remote control if you wish to display your Favourites Lists.

4 Press the  buttons to highlight the desired channel, then press the ENTER button to exit the index menu and view the selected channel.

Recording

Before Recording

Before you start recording...

- This recorder can record on various discs. Select the disc type according to your needs (page 8).
- Check that the disc has enough available space for the recording (page 32). For DVD+RWs and DVD-RWs, you can free up disc space by erasing titles (page 69).
- Adjust the recording picture quality and picture size if necessary (page 54).

Hint

Timer recordings will be made regardless whether or not the recorder is turned on. You can turn off the recorder without affecting the recording even after recording starts.

Notes

- If any digital teletext is operated while recording, it's contents will be recorded on the disc.
- If the subtitles are displayed while recording, they will be recorded on the disc.

Recording mode

Like the SP or LP recording mode of VCRs, this recorder has six different recording modes. Select a recording mode according to the time and picture quality you need. For example, if picture quality is your top priority, select the High Quality mode (HQ). If recording time is your priority, Super Long Play mode (SLP) can be a possible choice. Note that the recording time in the following table is an approximate guide. Press REC MODE repeatedly to switch the recording modes.

I want to record with the best possible picture quality, so I'll select HQ.



Recording mode	Recording time (minute)
HQ (High quality)	60
HSP ↑	90
SP (Standard mode)	120
LP ↓	180
EP ↓	240
SLP (Long duration)	360

Note

Situations below may cause slight inaccuracies with the recording time.

- Recording a programme with poor reception, or a programme or video source of low picture quality
- Recording on a disc that has already been edited
- Recording only a still picture or just sound

Unrecordable pictures

Pictures with copy protection cannot be recorded on this recorder.

When the recorder receives a copy guard signal, the recorder continues to record but only a blank, grey coloured screen will be recorded.

Copy control signals	Recordable discs
Copy-Free	+RW -RWVR -RWVideo +R -R
Copy-Once	-RWVR Ver.1.1 with CPRM*
Copy-Never	None (a blank screen is recorded)

* The recorded disc can be played only on CPRM compatible equipment.

Timer Recording (Standard/ EPG)

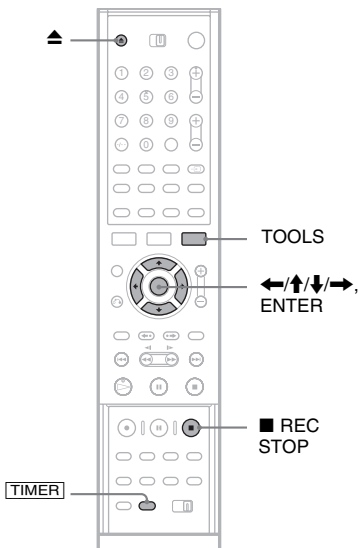
+RW -RWVR -RW_{Video} +R -R

You can set the timer for a total of thirty programmes.

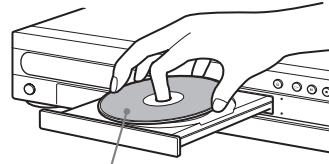
There are two methods to set the timer: the standard method and the EPG method.

- Standard: Set the date, time, and programme position of the programme manually. This method allows you to set the timer up to one month in advance.
- EPG: Set a programme to be recorded based on the information provided by the EPG (Electronic Programme Guide) (page 48). This method allows you to set the timer up to 8 days from the current time (depending on programme availability from the broadcaster).

Setting the timer manually (Standard)



- 1 Press \blacktriangle (open/close), and place a recordable disc on the disc tray.



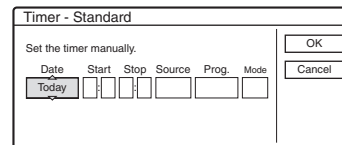
With the recording side facing down

- 2 Press \blacktriangle (open/close) to close the disc tray.

Wait until "LOAD" disappears from the front panel display.

Unused DVDs are formatted automatically.

- 3 Press **TIMER**.



- 4 Select an item using \leftarrow/\rightarrow and adjust using \uparrow/\downarrow .

"Date": Sets the date.

The item changes as follows:

Today \leftrightarrow Tomorrow \leftrightarrow \leftrightarrow Thu
28.10 (1 month later) \leftrightarrow Sun (every Sunday)
 \leftrightarrow \leftrightarrow Sat (every Saturday) \leftrightarrow
Mon-Fri (Monday to Friday) \leftrightarrow Mon-Sat
(Monday to Saturday) \leftrightarrow Sun-Sat (Sunday to Saturday) \leftrightarrow Today

"Start": Sets the start time.

"Stop": Sets the stop time.

"Source": Selects the input source as follows:
TV \leftrightarrow Radio \leftrightarrow Line (External input) \leftrightarrow TV

"Prog.": Selects the TV/Radio programme position or input line.

"Mode": Selects the recording mode (page 45).

- If you make a mistake, select the item and change the setting.

- 5 Select "OK," and press ENTER.

The Timer List menu (page 51) appears. The TIMER REC indicator lights up on the front panel and the recorder is ready to start recording.

Unlike a VCR, there is no need to turn off the recorder before the timer recording starts.

To stop recording during timer recording

Open the remote's cover and press **■ REC STOP**. Note that it may take a few seconds for the recorder to stop recording.

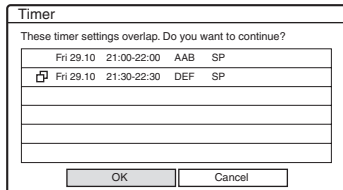
Rec Mode Adjust

If there is not enough available disc space for the recording, the recorder automatically adjusts the recording mode to enable the entire programme to be recorded. This function is normally set to "On."

To cancel this function, press **TOOLS** while the Timer List is displayed. Select "Rec Mode Adjust" and press **ENTER**. Select "Off" and press **ENTER**.

If the timer settings overlap

Overlapped timer settings are shown as follows.



To store the setting as shown, select "OK." The programme that starts first has priority and the second programme starts recording only after the first programme has finished (page 52).

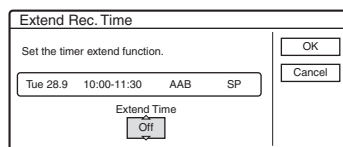
To cancel the overlapped timer setting, select "Cancel."

To confirm, change, or cancel timer recording

See "Checking/Changing/Canceling Timer Settings (Timer List)" (page 51).

To extend the recording duration time while recording

- 1 Press **TOOLS** during recording. The **TOOLS** menu appears.
- 2 Select "Extend Rec" and press **ENTER**.



- 3 Press **↑/↓** to select the duration time. You can set the duration in increments of 10 minutes, for a maximum of 60 minutes.
- 4 Select "OK" and press **ENTER**.

One Touch Timer

If you use the SMARTLINK connection, you can easily display the timer programming menu. When the TV is turned on or in standby mode, insert a disc and press **[TIMER]**. The recorder automatically turns on and the TV's input is switched to the recorder. The Timer programming menu appears.

Hint

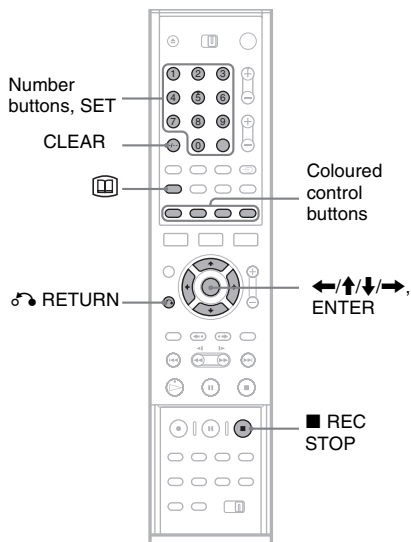
You can play the recorded programme by selecting the programme title in the Title List menu.

Notes

- If "The disc is full or nearly full" appears on the screen, change the disc, or make available space for the recording (DVD+RW/DVD-RW only) (page 70).
- Check that the clock is correctly set before setting the timer recording. If not, the timer recording cannot be made.
- Even if the timer is set for the same daily or weekly programme, the timer recording cannot be made if it overlaps with a programme that has priority. "□" will appear next to the overlapped setting in the Timer List. Check the priority order of the settings (page 51).
- Even if the timer is set, timer recordings cannot be made while recording a programme that has priority.

Recording TV programmes using the EPG application

The EPG application is a feature that simplifies setting the timer. Just select the programme you wish to record in the EPG display. The date, time, and channel of that programme are set automatically.



- 1 Insert a recordable disc.
- 2 Press the button to display the EPG.
- 3 Press the buttons or enter a channel number using the number buttons to move around the list.

All Programmes		Thu 27 Oct 10:32			
040	DDE NEWS 15				
Thu 27 Oct		10:30	11:00	11:30	12:00
DDE NEWS 15	DDE News	DDE News	DDE News	DDE News	
NCE	Live from Prague			NCE News	
J9	No Event Information				
CMY	No Event Information				
AAC	Opening...	Foreign Markets - Mor...		No Event...	
NCE 1	John's...	Hobbies and Interests		Fabulous...	
EFF News	EFF News			EFF News	
Channel J	Weather	Family		Drive in ...	
HGF	No Event Information				
NCE 5	City	Houses		No Event... Tennis	
Page Up	Page Down	Category		30 min View	

To know more about the navigation options in the EPG application, see page 38.

- 4 Select a future programme you wish to record. Once highlighted, press the ENTER button.

The sub menu appears with the description of the programme displayed in the information box.

Event Action

Select an action for this event

Hobbies and Interests
Thu 27.10 11:00-12:00
NCE 1 SP

Today's Hint: How to make finger puppets.

Timer

Modify

Erase

Check Overlap

Cancel

In case is displayed: Indicates that the programme is age limited (page 78).

- 5 Select "Timer," and press ENTER.

The Timer setting confirmation display appears

Timer

Do you want to record this event?

Hobbies and Interests
Thu 27.10 11:00-12:00 NCE 1 SP

OK Cancel Modify

- 6 Select "OK," and press ENTER.

All Programmes		Thu 27 Oct 10:32			
040	DDE NEWS 15				
Thu 27 Oct		10:30	11:00	11:30	12:00
DDE NEWS 15	DDE News	DDE News	DDE News	DDE News	
NCE	Live from Prague			NCE News	
J9	No Event Information				
CMY	No Event Information				
AAC	Opening...	Foreign Markets - Mor...		No Event...	
NCE 1	John's...	Hobbies and Interests		Fabulous...	
EFF News	EFF News			EFF News	
Channel J	Weather	Family		Drive in ...	
HGF	No Event Information				
NCE 5	City	Houses		No Event... Tennis	
Page Up	Page Down	Category		30 min View	

An event bar and a new icon appears in the EPG display indicating that a timer event is associated to that programme.

Your recorder will automatically begin recording when the programme starts.

◆ Some examples of timer event icon types are as follows:

- (red): Indicates the programme is set as timer and whole programme can be recorded.
- (grey): Indicates the programme is set as timer but only a part of the programme can be recorded. (e.g. because of timer setting overlap).
- (red): Indicates the programme is now recording.

To stop recording during timer recording

Open the remote's cover and press **■ REC STOP**.
Note that it may take a few seconds for the recorder to stop recording.

If the timer settings overlap

See page 47.

To confirm, change, or cancel timer recording

See "Checking/Changing/Canceling Timer Settings (EPG)" (page 49).

Hint

The Rec Mode Adjust function also works with this timer method (page 47).

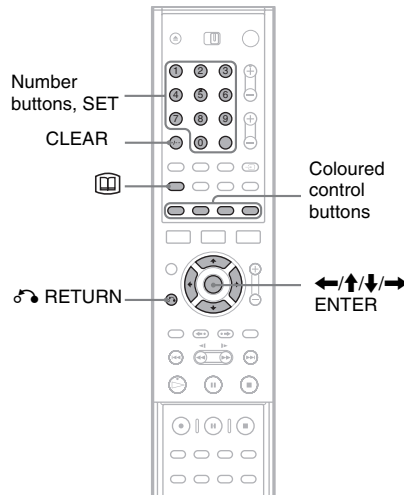
Note

It is not possible to extend the recording duration time of the timer recording set using the EPG application timer setting.

Checking/Changing/ Canceling Timer Settings (EPG)

+RW **-RWVR** **-RWVideo** **+R** **-R**

You can check, change, or cancel timer settings using the EPG menu.



Recording

1 Press the button to display the EPG.

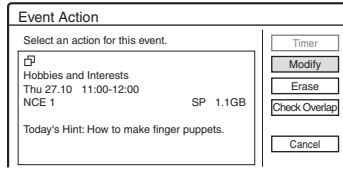
A timer setting can be identified thanks to the event bar and the timer event icon displayed in the EPG screen. For details see page 48.

All Programmes				Thu 27 Oct 10:32			
040	DDE NEWS 15						
Thu 27 Oct	10:30	11:00	11:30	12:00			
DDE NEWS 15	DDE News	DDE News	DDE News	DDE News			
NCE	Live from Prague		NCE News				
U9	No Event Information						
CMY	No Event Information						
AAC	Opening...	Foreign Markets - Mor...		No Event...			
NCE 1	John's...	Hobbies and Interests		Fabulous...			
EFF News	EFF News			EFF News			
Channel J	Weather	Family	Drive in ...				
HGF	No Event Information						
NCE 5	City	Houses	No Event...	Tennis			
Page Up	Page Down	Category		30 min View			

2 Press the buttons to select the timer event you want to check/change/cancel. Once highlighted, press the ENTER button.

→ continued 49

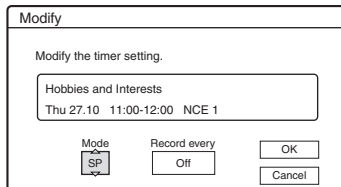
The Event Action menu appears.



3 Press the **↑/↓** buttons to select the options. Once highlighted, press the **ENTER** button.

The sub menu appears:

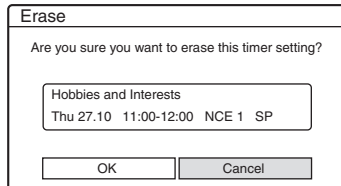
“Modify”: Changes the timer setting. Select an item using **←/→** and adjust using **↑/↓**. Select “OK” and press ENTER.



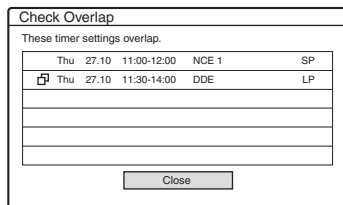
Note

If you set “Record every” to an other option than “Off”, then your EPG timer recording will be converted into a standard timer recording: the timer event icon disappears from the EPG display.

“Erase”: Erases the timer setting. Select “OK” and press ENTER.



“Check Overlap”: Checks for overlapped settings.



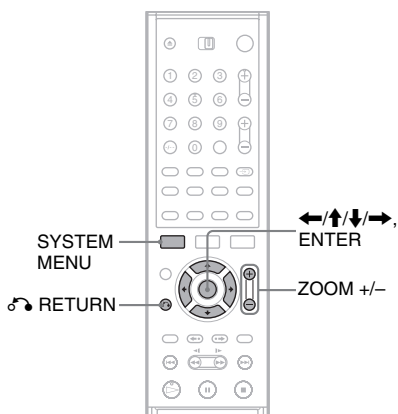
Select “Close” to return to the EPG screen.

To change or cancel the setting, repeat steps 2 and 3 above.

Checking/Changing/ Cancelling Timer Settings (Timer List)

+RW **-RWVR** **-RWVideo** **+R** **-R**

You can check, change, or cancel timer settings using the Timer List menu.



- 1 Press SYSTEM MENU.**
The System Menu appears.
- 2 Select "TIMER LIST," and press ENTER.**
To show the list in greater detail (zoom), press ZOOM+ :

TIMER LIST		10:30
●	Mon-Sat DDE News 22:00-22:15	SP
○	Tennis Fri 29.10 20:30-21:30	EP
○	AAB Fri 29.10 21:00-22:00	LP
○	DEF Sat 30.10 16:00-17:00	SLP
○	GHI	

Timer information displays the recording date, time, recording mode, etc.

☐: Indicates that the setting is overlapped by another setting.

○ (green): Indicates the setting can be recorded

● (red): Indicates the setting currently being recorded.

● (grey): Indicates that the setting cannot be recorded in the selected recording mode.

- 3 Select the timer setting you want to check/change/cancel, and press ENTER.**
The sub-menu appears.

- 4 Select one of the options, and press ENTER.**

"Modify": Changes the timer setting. Select an item using ←/→ and adjust using ↑/↓. Select "OK" and press ENTER.

Modify						
Modify the timer setting.						
Date	Start	Stop	Source	Prog.	Mode	
Sat 30.10	16:00	17:00	TV	GHI	SLP	
						OK
						Cancel

"Erase": Erases the timer setting. Select "OK" and press ENTER.

Erase	
Are you sure you want to erase this timer setting?	
DEF Sat 30.10 16:00-17:00 GHI SLP	
OK	
Cancel	

"Check Overlap": Checks for overlapped settings. Select "Close" and press ENTER to return to the Timer List.

Check Overlap				
These timer settings overlap.				
☐	Fri 29.10	21:00-22:00	AAB	SP
☐	Fri 29.10	21:30-22:30	DEF	LP
Close				

"Info": Displays the timer setting information box along with the disc space required to record the whole programme (according to the selected recording mode).

Information	
☐	Fri 29.10 21:30-22:30
DEF	LP 1.4GB
News with reports from Europe an around the world.	

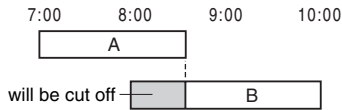
Press RETURN to come back to the Timer List.

To change or cancel the setting, repeat steps 3 and 4 above.

Recording

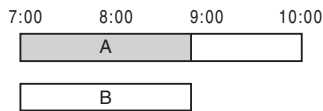
When the timer settings overlap

The programme that starts first has priority and the second programme starts recording only after the first programme has finished.



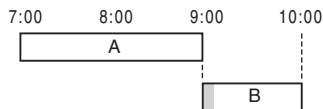
◆When the recordings start at the same time

The programme that is set last has priority. In this example, timer setting B is set after A, so the first part of timer setting A will not be recorded.



◆When the end time of one recording and the start time of another are the same

After finishing the previous recording, the other recording may be delayed.



To turn off the Timer List

Press RETURN.

Hint

While recording, you cannot modify the timer setting for the current recording, but you can extend the recording duration of the recording time (page 47).

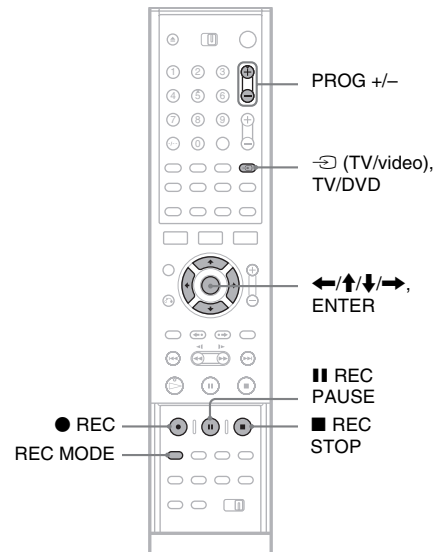
Notes

Even if the timer is set, timer recordings cannot be made while recording a programme that has priority.

- Even if the timer is set for the same daily or weekly programme, the timer recording cannot be made if it overlaps with a programme that has priority. “” will appear next to the overlapped setting in the Timer List. Check the priority order of the settings.

Recording Without the Timer

+RW **-RWVR** **-RW_{video}** **+R** **-R**



- 1 Insert a recordable disc.
- 2 Press **PROG +/-** to select the programme position or input source you want to record.
- 3 Press **REC MODE** repeatedly to select the recording mode.

Each time you press the button, the display changes on the TV screen as follows:

HQ → HSP → SP → LP → EP → SLP

For more details about the recording mode, see page 45.

- 4 Press **● REC**.

Recording starts.

Recording continues until you stop the recording or the disc is full.


To stop recording

Press **■** REC STOP located beneath the remote control cover. Note that it may take a few seconds for recording to stop.

To pause recording

Press **■** REC PAUSE located beneath the remote control cover. To restart recording, press the button again.

To watch another TV programme while recording

If your TV is connected to the LINE 1-TV jack, set your TV to the TV input using the TV/DVD button and select the programme you want to watch. If your TV is connected to the LINE 2 OUT or COMPONENT VIDEO OUT jacks, set the TV to TV input using the  (TV/video) button (page 20).

TV Direct Rec

If you use the SMARTLINK connection, you can easily record what you are watching on your TV. When the TV is turned on or in standby mode, insert a disc and press **●** REC. The recorder automatically turns on and starts recording what you are watching on the TV. "TV" appears in the front panel display. You cannot turn off the TV or change the programme position during TV Direct Rec. To turn off the function, set "TV Direct Rec" to "Off" in Features Setup (page 86).

Hint

If you do not want to watch TV while recording, you can turn off the TV. When using a decoder, make sure to leave it on.

Notes

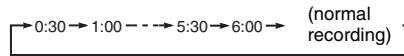
- After pressing **●** REC, it may take a short while to start recording.
- You cannot change the recording mode while recording or during recording pause.
- If there is a power failure, the programme you are recording may be erased.
- To use the TV Direct Rec function, you must first set the recorder's clock correctly.

Using the Quick Timer function

You can set the recorder to record in 30-minute increments.

Press **●** REC repeatedly to set the duration.

Each press advances the time in 30-minute increments. The maximum duration is six hours.



The time counter decreases minute by minute to 0:00, then the recorder stops recording (power does not turn off). Even if you turn off the recorder during recording, the recorder continues to record until the time counter runs out.

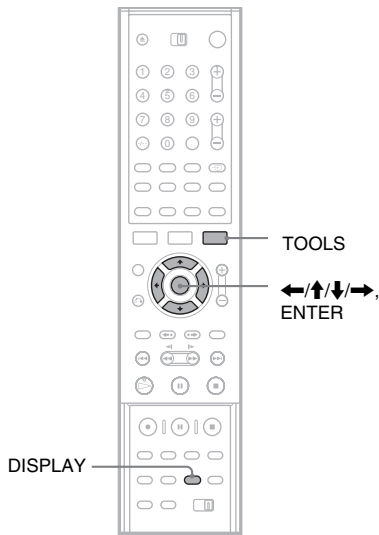
Note that the Quick Timer function does not work if "TV Direct Rec" is set to "On" in Features Setup (page 86).

To cancel the Quick Timer

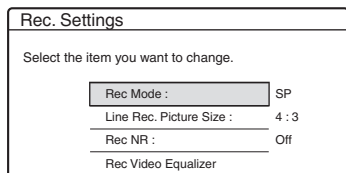
Press **●** REC repeatedly until the counter appears in the front panel display. The recorder returns to normal recording mode.

Adjusting the recording picture quality and size

You can adjust the recording picture quality and picture size.



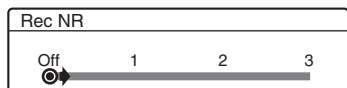
1 Before recording starts, press **TOOLS** and select “Rec Settings.” Then press **ENTER**.



2 Select the item you want to adjust, and press **ENTER**.

The adjustment display appears.

Example: Rec NR



“Rec Mode”: Selects the recording mode for the desired recording time and picture quality. For more information, see “Recording mode” (page 45).

“Line Rec. Picture Size”: Sets the picture size of the Line input to be recorded.

- 4:3 (default): Sets the picture size to 4:3.
- 16:9: Sets the picture size to 16:9 (wide mode).

This function works with DVD-Rs and DVD-RWs (Video mode) when the recording mode is set to HQ, HSP, or SP. For all other recording modes, the screen size is fixed at “4:3.”

For DVD-RWs (VR mode), the actual picture size is recorded regardless of the setting. For example, if a 16:9 size picture is received, the disc records the picture as 16:9 even if “DVD Rec. Picture Size” is set to “4:3.”

For DVD+RWs/DVD+Rs, the screen size is fixed at “4:3.”

“Rec NR” (noise reduction): Reduces noise contained in the video signal.

“Rec Video Equalizer”: Adjusts the picture in greater detail.

Press **↑/↓** to select the item you want to adjust, then press **ENTER**.

- Contrast: Changes the contrast.
- Brightness: Changes the overall brightness.
- Colour: Makes the colours deeper or lighter.

3 Adjust the setting using **←/↑/↓/→**, and press **ENTER**.

The default setting is underlined.

“Rec NR”: (weak) Off 1 ~ 3 (strong)

“Rec Video Equalizer”:

- Contrast: (weak) -3 ~ 0 ~ 3 (strong)
- Brightness: (dark) -3 ~ 0 ~ 3 (bright)
- Colour: (light) -3 ~ 0 ~ 3 (deep)

Repeat steps 2 and 3 to adjust any other items.

Notes

- If one programme contains two picture sizes, the selected size is recorded. However, if the 16:9 signal cannot be recorded as 16:9, it is recorded as 4:3.
- When playing a 16:9 size picture recorded as 4:3, the image is fixed to 4:3 letter box regardless of the setting in “TV Type” of Video Setup (page 82).
- Remnants of images may appear on your screen when using “Rec NR.”

Checking the disc status while recording

You can check the recording information such as recording time or disc type.

Press DISPLAY twice during recording.

The recording information appears.



- 1 Disc type/format
- 2 Recording status
- 3 Recording mode
- 4 Recording time

Press DISPLAY to turn off the display.

Creating chapters in a title

The recorder will automatically divide a recording (a title) into chapters by inserting chapter marks at 6 or 15-minute intervals during recording. Select the interval, “6Min” (default) or “15Min” in “Auto Chapter” of Features Setup (page 86).

Hint

You can create chapters manually when playing DVD-RWs (VR mode). For details, see page 72.

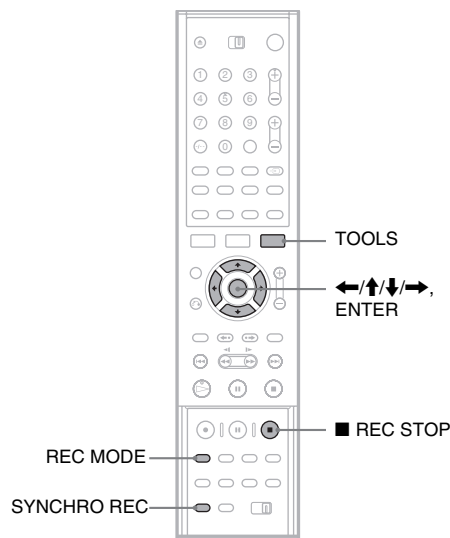
Recording From Connected Equipment With a Timer (Synchro Rec)

+RW -RWVR -RW_{Video} +R -R

You can set the recorder to automatically record programmes from connected equipment that has a timer function (such as a satellite tuner). Connect the equipment to the LINE 3 jack of the recorder (page 28).

When the connected equipment turns on, the recorder starts recording a programme from the LINE 3 jack.

Recording



- 1 Insert a recordable disc.
- 2 Press INPUT SELECT repeatedly to select “L3.”
- 3 Select the line input audio when recording a bilingual programme.
Press TOOLS to display the TOOLS menu. Select “Line Audio Input” and press ENTER. Select “Bilingual” and press ENTER.
- 4 Press REC MODE repeatedly to select the recording mode, HQ, HSP, SP, LP, EP, or SLP.

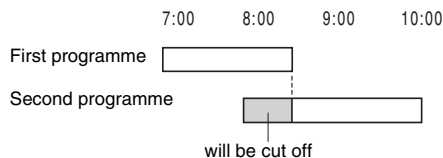
→ continued 55

5 Set the timer on the connected equipment to the time of the programme you want to record, and turn it off.

6 Press SYNCHRO REC.

The SYNCHRO REC indicator lights up on the front panel. The recorder is ready to start Synchro-Recording.

The recorder automatically starts recording when it receives an input signal from the connected equipment. The recorder stops recording when the connected equipment turns off.



To stop recording

Press ■ REC STOP or SYNCHRO REC.

To cancel Synchro Rec

Press SYNCHRO REC. The SYNCHRO REC indicator on the recorder turns off.

Notes

- The recorder starts recording only after detecting the video signal from the connected equipment. The beginning of the programme may not be recorded regardless of whether or not the recorder's power is on or off.
- During Synchro-Recording, other operations such as normal recording cannot be done.
- To use the connected equipment while the recorder is standing by for Synchro-Recording, cancel Synchro-Recording by pressing SYNCHRO REC. Be sure to turn off the connected equipment and press SYNCHRO REC to reset Synchro-Recording before the timer recording starts.
- The Synchro Rec function does not work with some tuners. For details, see the tuner's operating instructions.
- While the recorder is standing by for Synchro-Recording, the Auto Clock Set function (page 77) does not work.

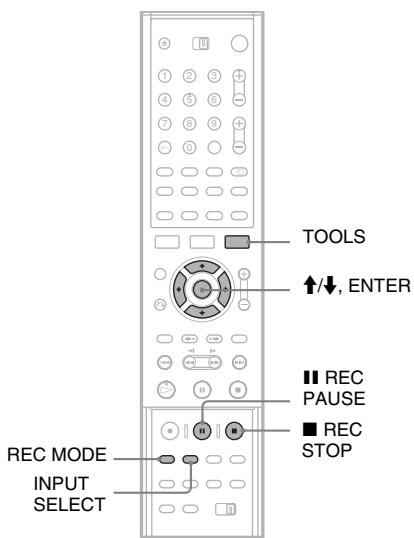
If the timer settings of a Synchro-Recording and another timer recording overlap

Regardless of whether or not the programme is a Synchro Rec programme, the programme that starts first has priority and the second programme starts recording only after the first programme has finished.

Recording From Connected Equipment Without a Timer

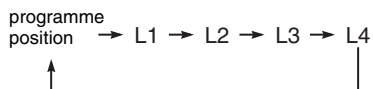
+RW -RWVR -RWVideo +R -R

You can record from a connected VCR or similar device. To connect a VCR or similar device, see “Connecting a VCR or Similar Device” (page 26).



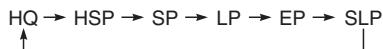
- 1 Insert a recordable disc.
- 2 Press INPUT SELECT to select an input source according to the connection you made.

The front panel display changes as follows:



- 3 Press REC MODE repeatedly to select the recording mode.

The recording mode changes as follows:



- 4 Press TOOLS and select “Line Audio Input.” Then press ENTER.

“Bilingual”: Records the two different sound tracks on DVD-RWs (VR mode). You can select either sound track when playing back the disc.

“Stereo” (default): Records stereo sound only. Select this for discs other than DVD-RWs (VR mode).

- 5 Press **||** REC PAUSE to set this recorder to record pause.

- 6 Insert the source tape into the connected equipment and set to playback pause.

- 7 At the same time, press **||** REC PAUSE on this recorder and the pause or play button on the connected equipment.

Recording starts.

To stop recording, press **■** REC STOP on this recorder.

Hint

You can adjust the settings for the recording picture before recording. See “Adjusting the recording picture quality and size” (page 54).

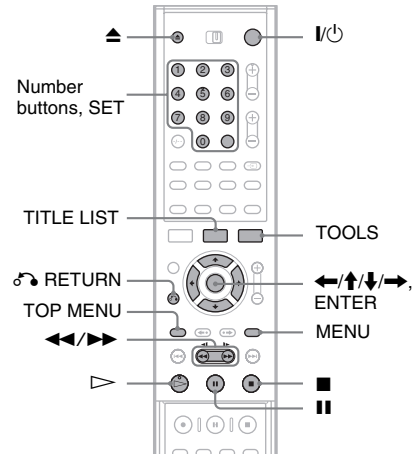
Notes

- When recording a video game image, the screen may not be clear.
- Any programme that contains a Copy-Never copy guard signal cannot be recorded. The recorder continues to record, but a blank screen will be recorded.

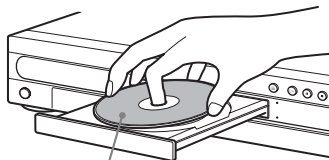
Recording

Playback

Playing



- 1 Press **▲** (open/close), and place a disc on the disc tray.



With the playback side facing down

- 2 Press **▲** (open/close) to close the disc tray.
If you inserted a DVD VIDEO, VIDEO CD, CD, or DATA CD, press **▶**. Playback starts.

- 3 Press **TITLE LIST**.

For details about the Title List, see “Using the Title List” (page 30).

Example: DVD-RW (VR mode)

Sort	Title	Time	Date
1	AAB	13:00-14:00	Wed 15.9
2	DEF	20:00-21:00	Fri 17.9
3	AAB	9:00-9:30	Sat 25.9
4	GHI	20:00-20:30	Sat 25.9
5	DEF	20:00-20:30	Fri 15.10
6	L3	21:00-21:30	Tue 19.10
7	L3	21:00-21:30	Tue 26.10
8	GHI	10:00-10:30	Thu 28.10

- 4 Select the title, and press **ENTER**.

The sub-menu appears.

- 5 Select “Play,” and press **ENTER**.

Playback starts from the selected title on the disc.

To use the DVD's Menu

When you play a DVD VIDEO, or a finalized DVD+RW, DVD-RW (Video mode), DVD+R, or DVD-R, you can display the disc's menu by pressing TOP MENU or MENU.

To play VIDEO CDs with PBC functions

PBC (Playback Control) allows you to play VIDEO CDs interactively using the menu on your TV screen.

When you start playing a VIDEO CD with PBC functions, the menu appears.

Select an item using the number buttons and press ENTER. Then, follow the instructions in the menu (press **▶** when “Press SELECT” appears).

The PBC function of Super VCDs does not work with this recorder. Super VCDs are played in continuous play mode only.

To stop playback

Press **■**.

To resume playback from the point where you stopped the disc (Resume Play)

When you press **▶** again after you stop the disc, the recorder resumes playback from the point where you pressed **■**.

To start from the beginning, press TOOLS, select “Play Beginning” and press ENTER. Playback starts from the beginning of the title/track/scene.

The point where you stopped playing is cleared when:

- you open the disc tray.
- you play another title.
- you switch the Title List menu to Original or Playlist (DVD-RW in VR mode only).
- you edit the title after stopping playback.
- you change the settings on the recorder.
- you turn off the recorder (VIDEO CD/CD/DATA CD only).
- you make a recording (except for DVD-RWs in VR mode).

To play restricted DVDs (Parental Control)



If you play a restricted DVD, the message “Do you want temporarily change parental control to *?” appears on your TV screen.


- 1** Select “OK” and press ENTER.
The display for entering your password appears.
- 2** Enter your four-digit password using the number buttons.
- 3** Press ENTER to select “OK.”
The recorder starts playback.



To register or change the password, see “Parental Control (DVD VIDEO only)” (page 87).

To lock the disc tray (Child Lock)

You can lock the disc tray to prevent children from ejecting the disc.


When the recorder is in standby mode, press  RETURN, ENTER, and then  on the remote.

“LOCKED” appears in the front panel display. The  (open/close) button does not work while the Child Lock is set.

To unlock the disc tray, press  RETURN, ENTER, and then  on the remote again when the recorder is in standby mode.

One Touch Play

If you use the SMARTLINK connection, you can easily start playing.


When the TV is turned on or in standby mode, insert a disc and press . The recorder automatically turns on and the TV’s input is switched to the recorder. Playback starts automatically.

One Touch Menu

If you use the SMARTLINK connection, you can easily display the Title List.

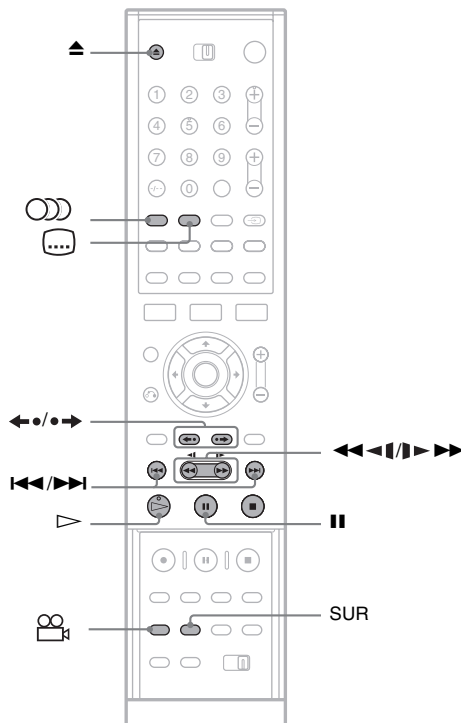
When the TV is turned on or in standby mode, insert a disc and press TITLE LIST. The recorder automatically turns on and the TV’s input is switched to the recorder. The Title List menu appears.

Hints

- You can also use the  button in step 4 (page 58) to start playback.
- Even if a timer recording starts during playback, neither the recording nor playback will stop (page 64).
- Even if you select “Factory Setup” in Options Setup (page 90), the Child Lock remains set.

Playback

Playback options



Buttons	Operations	Discs
▲ (open/close)	Stops play and opens the disc tray.	All discs
ⓄⓄ (audio)	<p>Selects one of the audio tracks recorded on the disc when pressed repeatedly.</p> <p>DVD : Selects the language.</p> <p>-RWVR : Selects the main or sub sound.</p> <p>VCD CD DATA CD : Selects stereo or monaural audio tracks.</p>	<p>-RWVR DVD VCD</p> <p>CD DATA CD</p>
⋮ (subtitle)	Selects a subtitle language when pressed repeatedly.	DVD
📷 (angle)	<p>Selects an angle when pressed repeatedly.</p> <p>If various angles (multi-angles) for a scene are recorded on the disc, “📷” appears in the front panel display.</p>	DVD

Buttons	Operations	Discs
SUR (surround)	<p>Selects one of the TVS effects when pressed repeatedly.</p> <p>TVS* (TV Virtual Surround) lets you enjoy virtual surround sound effects created from the front left and right speakers. The selected setting is displayed in the front panel display for a few seconds.</p> <p>“TVS OFF”: No surround effect</p> <p>“TVS DYNAMIC”: Creates one set of virtual rear speakers.</p> <p>“TVS WIDE”: Creates five sets of virtual rear speakers.</p> <p>“TVS NIGHT”: Creates five sets of virtual rear speakers. Effective at low volume.</p> <p>“TVS STANDARD”: Creates three sets of virtual rear speakers. Effective when you use two separate front speakers.</p>	<p>DVD</p> <p>* TVS was developed by Sony to produce home surround sound with just a stereo TV. This works with multichannel Dolby Digital and MPEG soundtracks.</p>
◀•/•▶ (instant replay/instant advance)	Replays the scene/briefly fast forwards the scene.	<p>+RW -RWVR -RW_{video}</p> <p>+R -R DVD</p>
◀◀ (previous)/ ▶▶ (next)	Goes to the beginning of the previous/next title/ chapter/scene/track.	All discs
◀◀◀/▶▶▶ (fast reverse/fast forward)	<p>Fast reverses/fast forwards the disc when pressed during playback.</p> <p>Search speed changes as follows:</p> <p style="text-align: center;"> fast reverse fast forward FR1 ← → FF1 FR2 ←← →→ FF2 FR3* ←←← →→→ FF3* </p> <p>When you press and hold the button, fast forward/fast reverse continues at the selected speed until you release the button.</p>	<p>All discs</p> <p>* FR3 and FF3 are only available for DVDs.</p>
◀◀◀/▶▶▶ (slow, freeze frame)	<p>Plays in slow motion when pressed for more than one second in pause mode.</p> <p>Plays one frame at a time when pressed briefly in pause mode.</p>	<p>+RW -RWVR -RW_{video}</p> <p>+R -R DVD</p> <p>VCD *</p> <p>* Playback direction only</p>
⏸ (pause)	Pauses playback.	All discs


Playback

To resume normal playback, press ▷.

Notes

- To enjoy the TVS function, set “Digital Output” to “On” and “Dolby Digital” to “D-PCM” in Audio Setup.
- When the playback signal does not contain a signal for the rear speakers, the surround effects will be difficult to hear.
- When you select one of the surround modes, turn off the surround settings of the connected TV or amplifier (receiver).
- Make sure that your listening position is between and at an equal distance from your speakers, and that the speakers are located in similar surroundings.
- The TVS function cannot be used with discs recorded on this recorder. Angles and subtitles also cannot be changed.
- When you use the DIGITAL OUT (COAXIAL) jack to listen to MPEG audio signals and set “MPEG” to “MPEG” in Audio Setup, no sound will come from your speakers if you select one of the TVS modes.

Notes on playing DTS sound tracks on a CD

- When playing DTS-encoded CDs, excessive noise will be heard from the analogue stereo jacks. To avoid possible damage to the audio system, the consumer should take proper precautions when the analogue stereo jacks of the recorder are connected to an amplification system. To enjoy DTS Digital SurroundTM playback, an external 5.1-channel decoder system must be connected to the digital jack of the recorder.
- Set the sound to “Stereo” using the  (audio) button when you play DTS sound tracks on a CD (page 60).

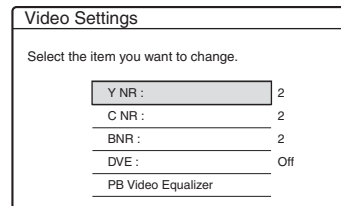
Notes on playing DVDs with a DTS sound track

DTS audio signals are output only through the DIGITAL OUT (COAXIAL or OPTICAL) jack.
When you play a DVD with DTS sound tracks, set “DTS” to “On” in Audio Setup (page 85).

Adjusting the picture quality

+RW -RWVR -RWVideo +R -R DVD
VCD

- 1 Press TOOLS during playback.**
The TOOLS menu appears.
- 2 Select “Video Settings,” and press ENTER.**



- 3 Select an item, and press ENTER.**

The adjustment display appears.

“Y NR” (luminance noise reduction):

Reduces noise contained in the luminance element of the video signal.

“C NR” (chroma noise reduction): Reduces noise contained in the colour element of the video signal.

“BNR” (block noise reduction): Reduces “block noise” or mosaic like patterns in the picture.

“DVE” (digital video enhancer): Sharpens the outlines of the images.

“PB Video Equalizer” (Playback video equalizer): Adjusts the picture in greater detail.

Select an item and press ENTER.

- Contrast: changes the contrast.
- Brightness: changes the overall brightness.
- Colour: makes the colours deeper or lighter.
- Hue: changes the colour balance.

4 Press **←/→** to adjust the setting, and press **ENTER**.

The default settings are underlined.

“Y NR”: (weak) Off 1 2 3 (strong)

“C NR”: (weak) Off 1 2 3 (strong)

“BNR”: (weak) Off 1 2 3 (strong)

“DVE”*: (weak) Off 1 2 3 (strong)

“PB Video Equalizer”:

- Contrast: (weak) -3 ~ 0 ~ 3 (strong)

- Brightness: (dark) -3 ~ 0 ~ 3 (bright)

- Colour: (light) -3 ~ 0 ~ 3 (deep)

- Hue: (red) -3 ~ 0 ~ 3 (green)

Repeat steps 3 and 4 to adjust any other items.

* “1” softens the outlines of the images. “2”

enhances the outlines and “3” enhances them more than “2.”

Notes

- If the outlines of the images on your screen become blurred, set “BNR” to “Off.”
- Depending on the disc or the scene being played, the above BNR, Y NR, or C NR effects may be hard to discern. And, these functions may not work with some screen sizes.
- When playing a disc recorded in SLP recording mode, the BNR setting may have little effect.
- When using the DVE function, noise found in the disc may become more apparent. In this case, it is recommended that you use the BNR function with the DVE function. If the condition still does not improve, set the DVE level to “1” or “Off.”

Adjusting the sound quality

+RW **-RWVR** **-RW_{Video}** **+R** **-R** **DVD**
VCD **CD**

1 Press **TOOLS** during playback.

The TOOLS menu appears.

2 Select “Audio Settings,” and press **ENTER**.

3 Select an item, and press **ENTER**.

“Surround (TVS)” (DVD VIDEO only):

Selects one of the surround modes. For more information, see “Playback options” (page 60).

“Audio Filter” (all discs): Selects the digital filter to reduce noise above 22.05 kHz (Fs* is 44.1 kHz), 24 kHz (Fs is 48 kHz), or 48 kHz (Fs is above 96 kHz).

- Sharp (default): Provides a wide frequency range and spatial feeling.

- Slow: Provides smooth and warm sound.

* Sampling frequency of audio source. This function only adjusts the output signals from the LINE 1 - TV, LINE 3, or LINE 2 OUT (AUDIO L/R).

4 Press **←/↑/↓/→** to select the option, and press **ENTER**.

Note

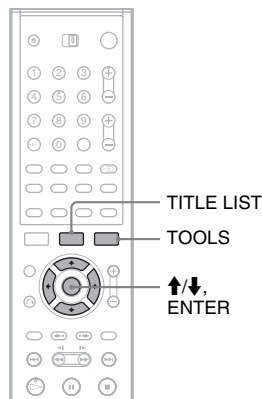
There may be little effect by changing the Audio Filter depending on the disc or playback environment.

Chasing Playback/ Simultaneous Rec and Play

-RWVR

“Chasing playback” allows you to view the beginning of a programme while it is being recorded.

“Simultaneous Rec and Play” allows you to view a previously recorded programme while recording another on the same disc.



Playing from the beginning of the programme you are recording

You can view the recorded part of a programme while the recording is being made. You do not need to wait until the recording finishes.

1 Press **TOOLS** while recording.

The **TOOLS** menu appears.

2 Select “Chasing Playback,” and press **ENTER**.

Playback starts from the beginning of the programme you are recording.

When you fast forward to the point that you are recording, Chasing Playback returns to normal playback.

Notes

- This function does not work when recording:
 - on a 1x-speed DVD-RW.
 - in the HQ or HSP recording mode.

- The picture on your TV screen freezes for a few seconds when you fast forward/fast reverse or instant replay/advance the recording.

Playing a previous recording while making another

You can play a previously recorded programme while recording another on the same disc. Playback continues even if the recording is a timer recording.

1 While recording, press **TITLE LIST**.

The Title List menu appears.

2 Select the title you want to play, and press **ENTER**.

The sub-menu appears.

3 Select “Play,” and press **ENTER**.

Playback starts from the selected title.

Notes

- This function does not work when recording:
 - on a 1x-speed DVD-RW.
 - in the HQ or HSP recording mode.
- The picture on your TV screen freezes for a few seconds when you fast-forward/fast-reverse or instant replay/advance the recording.
- When playing a title recorded in the HQ or HSP recording mode, picture noise may appear depending upon the condition of the recording.

Searching for a Title/ Chapter/Track, etc.



You can search a DVD by title or chapter, and VIDEO CD/CD/DATA-CD by track or scene. As titles and tracks are assigned individual numbers on the disc, select the title or track by entering its number. You can also search for a scene using the time code.

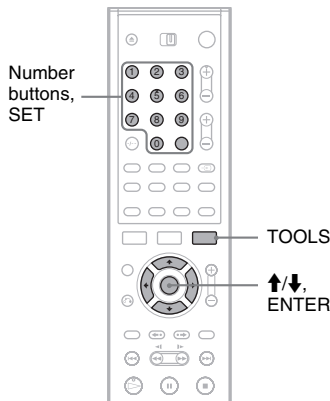
3 Press the number buttons to select the number of the title, chapter, track, time code, etc., you want.

For example: Time Search
To find a scene at 2 hours, 10 minutes, and 20 seconds, enter "21020."

If you make a mistake, press CLEAR to cancel the number, then select another number.

4 Press SET.

The recorder starts playback from the selected number.



Playback

1 Press TOOLS during playback.

The TOOLS menu appears.

2 Select a search method, and press ENTER.

- "Title Search" (for DVDs)
- "Chapter Search" (for DVDs)
- "Track Search" (for CDs/DATA CDs)
- "Search" (for VIDEO CDs)
- "Album Search" (for DATA CDs)
- "Time Search" (for DVDs): Searches for a starting point by entering the time code.

The display for entering the number appears.
Example: Title Search

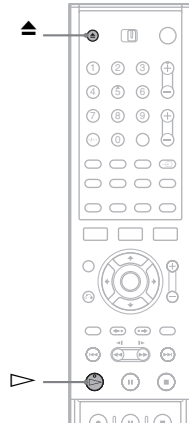


The number in parentheses indicates the total number of titles, tracks, etc.

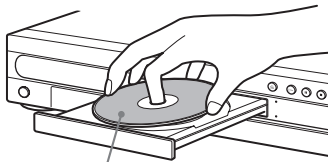
Playing MP3 Audio Tracks

DATA CD

You can play MP3 audio tracks on DATA CDs (CD-ROMs/CD-Rs/CD-RWs).



- 1 Press (open/close), and place a disc on the disc tray.



With the playback side facing down

- 2 Press (open/close) to close the disc tray.

- 3 Press .

Playback starts from the first MP3 audio tracks on the disc. Note that the playback order may be different from the edited order. See "Playback order of MP3 audio tracks" below.

About MP3 audio tracks

MP3 is audio compression technology that satisfies certain ISO/MPEG regulations. You can play back DATA CDs (CD-ROMs/CD-Rs/CD-RWs) recorded in MP3 (MPEG1 Audio Layer 3) format. However, the discs must be recorded according to ISO9660 Level 1, Level 2

or Joliet format for the recorder to recognize the tracks. You can also play discs recorded in Multi Session.

See the instructions supplied with the CD-R/CD-RW drives and the recording software (not supplied) for details on the recording format.

Note on Multi Session discs

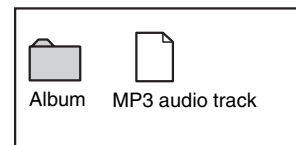
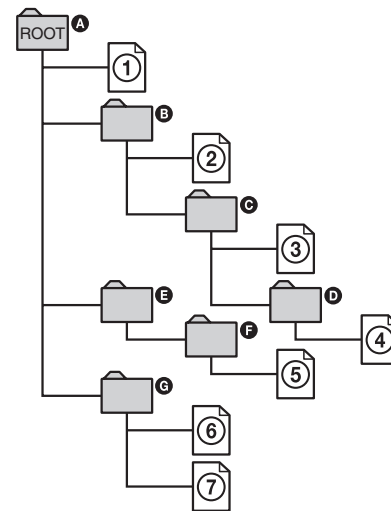
If MP3 audio tracks are recorded in the first session, the recorder will also play MP3 audio tracks in other sessions. If audio tracks in Music CD format are recorded in the first session, only the first session will be played back.

Playback order of MP3 audio tracks

Albums containing MP3 audio tracks play in the following order.

A → **B** → **C** → **D** → **F** → **G**. Albums that do not contain tracks (such as album **E**) are skipped.

Tree 1 Tree 2 Tree 3 Tree 4 Tree 5



When you insert a DATA CD and press , the numbered tracks are played sequentially, from ① through ⑦. Any sub-albums/tracks contained within a currently selected album take priority over the next album in the same tree. (Example: **C** contains **D** so ④ is played before ⑤.)




Hints

- You can view the disc information while playing MP3 audio tracks (page 36).
- If you add numbers (01, 02, 03, etc.) to the front of the track names when you store the tracks in a disc, the tracks will be played in that order.
- Since a disc with many trees takes longer to start playback, it is recommended that you create albums with no more than two trees.

Notes

- Depending on the software you use to create the DATA CD, the playback order may differ from the above illustration.
- Proceeding to the next or another album may take some time.
- The recorder may not be able to play some DATA CDs created in the Packet Write format.
- The recorder will play any data with the extension “.MP3,” even if they are not in MP3 format. Playing this data may generate a loud noise which could damage your speaker system.
- The recorder does not conform to audio tracks in MP3PRO format.
- The playback order above may not be applicable if there are more than a total of 999 albums and tracks in the DATA CD.
- The recorder can recognize up to 499 albums (the recorder will count just albums, including albums that do not contain MP3 audio tracks). The recorder will not play any albums beyond the first 499 albums. Of the first 499 albums, the recorder will play no more than a combined total of 999 albums and tracks.
- The recorder can play MP3 audio tracks recorded in the following sampling frequencies: 32 kHz, 44.1 kHz, 48 kHz.
- Only the letters in the alphabet and numbers can be used for album or track names. Anything else is displayed as “*.”
- ID3 tags cannot be displayed.




 Playback
 

Editing

Before Editing

This recorder offers various edit options for various disc types. Before you edit, check the disc type in the front panel display, and select the option available for your disc (page 8).

Note

You may lose the edited contents if you remove the disc or a timer recording starts while editing.

Edit options for DVD+RWs/DVD-RWs (Video mode)/DVD+Rs/DVD-Rs

+RW -RW_{Video} +R -R

You can perform simple edits. Since Video mode titles are actual recordings on the disc, you cannot undo any edits you make. The edit functions available for Video mode titles are:

- Setting protection against erasure (page 69).
- Labelling a title (page 69).
- Erasing a title (page 69).
- Erasing multiple titles (page 70).
- Erasing a section of a title (A-B Erase) (DVD+RWs only) (page 70).
- Erasing titles to open up disc space (Disc Map) (DVD+RWs and DVD-RWs (Video mode) only) (page 71).

Notes

- Once the disc is finalized, you cannot edit or record on the disc (except for DVD+RWs and DVD-RWs (VR mode)).
- You cannot create a Playlist (see below).
- If a message appears and indicates that the disc's control information is full, erase unnecessary titles.

Edit options for DVD-RWs (VR mode)

-RW_{VR}

You can enjoy advanced edit functions. First you have two options for a DVD-RW (VR mode): editing either the original recording (called the "original"), or the playback information created from the original (called a "Playlist"). Since each is different in nature and offers different merits, read the following and select the one that better suits your needs.

To edit original titles

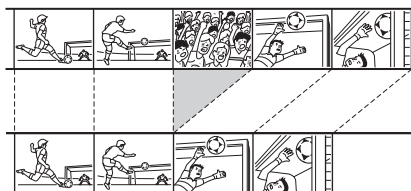
Edits made to the original titles are final. If you plan to retain an unaltered original recording, create and edit a Playlist (see below). The edit functions available for original titles are:

- Labelling a title (page 69).
- Setting protection against erasure (page 69).
- Erasing a title (page 69).
- Erasing multiple titles (page 70).
- Erasing a section of a title (A-B Erase) (page 70).

To create and edit Playlist titles

A Playlist is a group of Playlist titles created from the original title for editing purposes. When you create a Playlist, only the control information necessary for playback, such as the playback order, is stored on the disc. Since the original titles are left unaltered, Playlist titles can be re-edited.

Example: You have recorded the final few matches of a football tournament on a DVD-RW (VR mode). You want to create a digest with the goal scenes and other highlights, but you also want to keep the original recording.



In this case, you can compile highlight scenes as a Playlist title. You can even rearrange the scene order within the Playlist title ("Creating and Editing a Playlist" on page 72).

The advanced edit functions available for Playlist titles are:

- Labelling a title (page 69).
- Erasing a title (page 69).
- Erasing multiple titles (page 70).
- Erasing a section of a title (A-B Erase) (page 70).
- Rearranging the title order (page 74).
- Dividing a title into multiple titles (page 74).
- Combining multiple titles into one title (page 75).

Hint

You can display the disc's Playlist titles in the Title List (Playlist), or the original titles in the Title List (Original). To switch the two Title Lists, press TOOLS while a Title List is displayed, and select "Original" or "Playlist."

Notes

- The Playlist title calls up data from the original titles for playback. When an original title is used for a Playlist title, the original title cannot be erased.
- You cannot protect Playlist titles.
- If a message appears and indicates that the disc's control information is full, erase unnecessary titles.

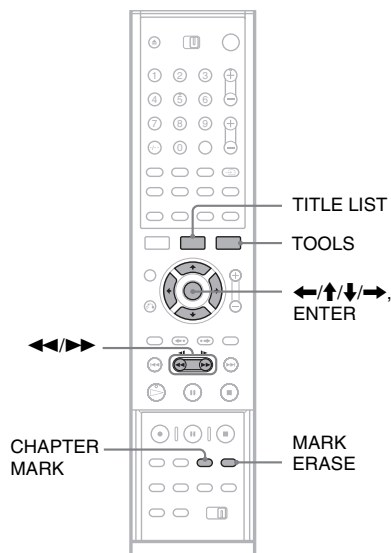
Editing a Title

+RW -RWVR -RW_{Video} +R -R

This section explains the basic edit functions. Note that editing is irreversible. To edit a DVD-RW (VR mode) without changing the original recordings, create a Playlist title (page 72).

Note

When editing a DVD+R, DVD-R, or DVD-RW (Video mode), finish all editing before finalizing the disc. You cannot edit a finalized disc.



1 Press TITLE LIST.

When editing a DVD-RW in VR mode, press TOOLS and select "Original" or "Playlist" from the TOOLS menu to switch the Title Lists, if necessary.


2 Select a title, and press ENTER.

The sub-menu appears.

3 Select an option, and press ENTER.

You can make the following edits to the title.
"Erase": Erases the selected title. Select "OK" when asked for confirmation. When the title is protected, the display asks for confirmation. To erase, select "Change," and when the Protection display appears, select "Off."

→ continued 69

“Protect”: Protects the title. Select “On” when the Protection display appears. “” appears next to the protected title. To cancel the protection, select “Off.”

“Title Name”: Allows you to enter or re-enter a title name (page 37).

“Set Thumbnail”: Changes the title’s thumbnail picture that appears in the Title List (page 30).

“A-B Erase”: Erases a section of the title (see below).

Hints

- You can erase multiple titles at one time (page 70), or erase all of the titles on the disc at once (page 33).
- You can label or re-label DVDs (page 33).

Note

You cannot protect Playlist titles.

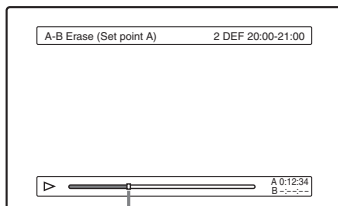
Erasing a section of a title (A-B Erase)

+RW -RWVR

You can select a section (scene) in a title and erase it. Note that erasing scenes in a title cannot be undone.

1 After step 2 of “Editing a Title,” select “A-B Erase” and press ENTER.

The display for setting point A appears.

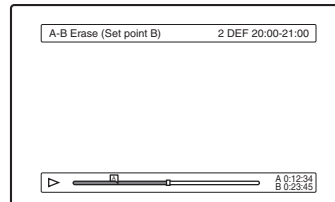


Playback point

- When the title is protected, the display asks for confirmation. To continue, select “Change,” and when the protection display appears, select “Off.”

2 Select point A by pressing , and press ENTER.

The display for setting point B appears.



3 Select point B by pressing , and press ENTER.

The display asks for confirmation. To reset either point A or B, select “Change A” or “Change B,” and go to step 2 or 3.

4 Select “OK,” and press ENTER.

The scene is erased, and the display asks whether to erase another scene. To continue, select “Yes,” and repeat from step 2. To finish, select “No.”

Hint

A chapter mark is inserted after the scene was erased. The chapter mark divides the title into separate chapters on either side of the mark.

Notes

- Images or sound may be momentarily interrupted at the point where you erase a section of a title.
- Sections shorter than five seconds may not be erased.
- For DVD+RWs, the erased section may be slightly different from the points you selected.

Erasing multiple titles (Erase Titles)

+RW -RWVR -RWVideo +R -R

You can select and erase two or more titles at one time using the TOOLS menu.

1 Press TITLE LIST to turn on the Title List menu, and press TOOLS.

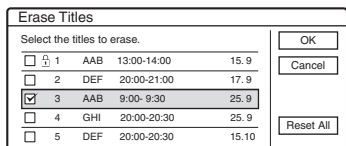
The TOOLS menu appears.

2 Select “Erase Titles,” and press ENTER.

The display for selecting titles to be erased appears.

3 Select a title, and press ENTER.

A check mark appears in the check box next to the selected title. To clear the check mark, press ENTER again. To clear all of check marks, select "Reset All."



- When the title is protected, the display asks for confirmation. To continue, select "Change," and when the protection display appears, select "Off." To cancel, select "Close."

4 Repeat step 3 to select all of the titles you want to erase.

5 When you finish selecting titles, select "OK," and press ENTER.

The list of the titles to be erased appears for confirmation. To change the selection, select "Change," and repeat from step 3.

6 Select "OK" and press ENTER.

The titles are erased.

Erasing titles to open up disc space (Disc Map)

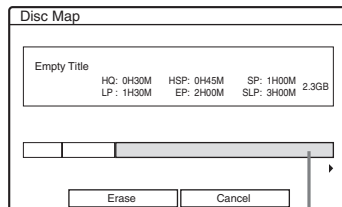
+RW -RW_{Video}

When recording on a DVD+RW or DVD-RW (Video mode), the recorder searches for the largest open space and records there. Before you start, check the disc status by using Disc Map, and erase titles to create a space large enough for the recording.

1 Insert a disc and press TITLE LIST.

2 Press TOOLS and select "Disc Map," and press ENTER.

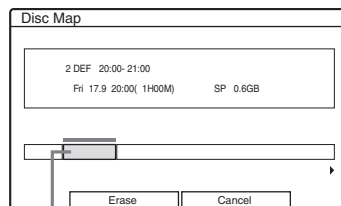
The Disc Map appears. To check the open space, select the space by pressing ←/→.



- When ◀ or ▶ appears on either side of the screen, you can scroll sideways by pressing ←/→.

3 Select a title by pressing ←/→, and press ENTER.

The display for selecting titles to be erased appears. To cancel the selection, press ENTER again.



- When the title is protected, the display asks for confirmation. To continue, select "Change," and when the protection display appears, select "Off." To cancel, select "Close."

4 Repeat step 3 when erasing more titles.

5 Select "Erase," and press ENTER.

The display asks for confirmation. To change the selection, select "Change."

6 Select "OK," and press ENTER.

The selected titles are erased, freeing up disc space.

Creating chapters manually

-RW\VR

You can manually insert a chapter mark at any point you like during playback or recording.

Press CHAPTER MARK at the point where you want to divide the title into chapters.

Each time you press the button, "Marking..." appears on the screen and the scenes to the left and right of the mark become separate chapters.



To erase chapter marks

You can combine two chapters by erasing the chapter mark during playback.

Press ◀◀/▶▶ to search for a chapter number, and while displaying the chapter containing the chapter mark you want to erase, press MARK ERASE.

The current chapter combines with the previous chapter.

Note

If a message appears and indicates that no more chapter marks can be added, you may not be able to record or edit.

Creating and Editing a Playlist

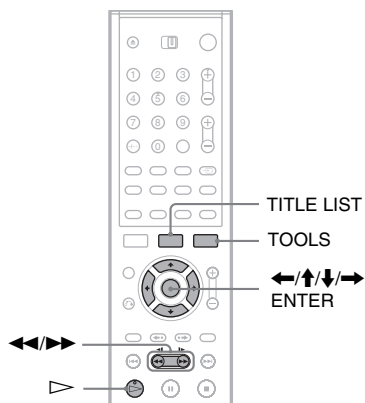
-RW\VR

Playlist edit allows you to edit or re-edit without changing the actual recordings. A Playlist title can contain up to 50 scenes.

For details, see "Edit options for DVD-RWs (VR mode)" (page 68).

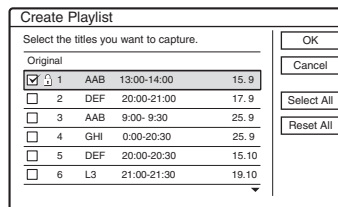
Note

Once you create a Playlist title from original titles, you will be unable to erase or edit the original titles.



- 1 Press TITLE LIST to turn on the Title List menu, and press TOOLS.**
The TOOLS menu appears.
- 2 Select "Create Playlist," and press ENTER.**
The display for selecting titles appears.
- 3 Select the title you want to include in the Playlist title, and press ENTER.**

A check mark appears in the check box next to the selected title. To clear the check mark, press ENTER again. To select all of the titles, select "Select All."

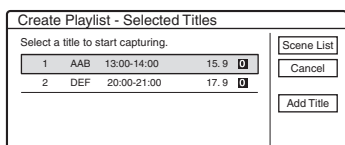


4 Repeat step 3 to add more titles.

To go to the next page of titles, press \downarrow . To clear all of the check marks, select "Reset All."

5 Select "OK," and press ENTER.

The list of selected titles appears. To add another title, select "Add Title."



6 Select one of the titles, and press ENTER.

The sub-menu appears.

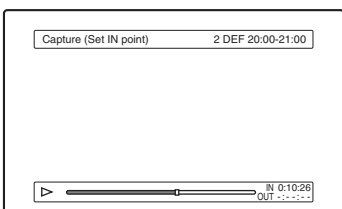
"Capture": Adds a section of the title to the Playlist title as one scene.

"Capture All": Adds the entire title to the Playlist title as one scene. After capturing the title, select "Scene List" and go to step 12.

"Check Scenes": Allows you to check the captured scene.

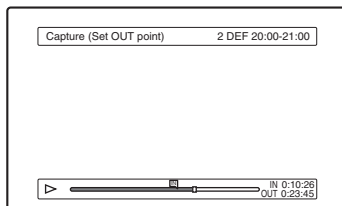
7 Select "Capture," and press ENTER.

The display for setting the start point (IN) appears. The title starts to play in the background.



8 Select the IN point by pressing \leftarrow/\rightarrow , and press ENTER.

The display for setting the end point (OUT) appears, and the title continues to play in the background.



9 Select the OUT point by pressing \leftarrow/\rightarrow , and press ENTER.

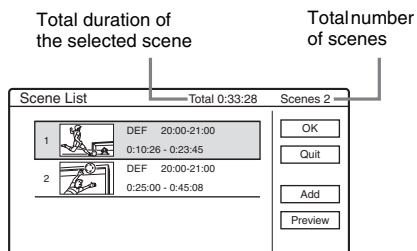
The display asks for confirmation. To reset the IN or OUT point, select "Change IN" or "Change OUT" and repeat step 8 or 9. To view the selected scene, select "Preview."

10 Select "OK," and ENTER.

The selected section is captured as a scene, and the display asks whether you want to continue. To continue, select "More," and repeat the steps above. To capture a scene from another title, select "New Title."

11 When you finish capturing scenes, select "No More" and press ENTER.

The Scene List menu appears with all of the selected scenes.



Editing

12 Select the scene you want to edit, and press ENTER.

The sub-menu appears.

"Move": Changes the scene order.

"Erase": Erases the scene. The selection is cancelled.

"Preview": Displays thumbnail pictures of the scenes.

"Change IN": Allows you to change the IN point, and repeat from step 8.

"Change OUT": Allows you to change the OUT point, and repeat from step 9.

To add more scenes, select "Add" and go to step 6. To preview all of the captured scenes in the listed order, select "Preview."

13 When you finish editing the Scene List, select "OK," and press ENTER.

The display for entering the title name appears. To enter a new name, select "Enter" (see page 37).

14 Select "OK" to use the default name, and press ENTER.

→ continued 73

To play the Playlist title

Press **TOOLS** while the Title List menu is turned on. Then, select “Playlist” and press **ENTER**. When the Title List (Playlist) menu appears, select a title and press **▷**.

Hint

When a Playlist title is created, the IN and OUT points will become chapter marks, and each scene will become a chapter.

Note

The picture may pause when the edited scene is played.

Moving a Playlist title (Move)

-RWVR

You can change the Playlist title order within the Title List (Playlist).

1 Press **TITLE LIST** to turn on the Title List (Playlist) menu.

If the Title List (Original) menu appears, press **TOOLS** and select “Playlist.”

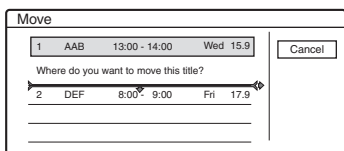
2 Select “Number” in the “Sort” column, and press **ENTER**.

The titles are sorted in order of title number.

3 Select a title, and press **ENTER**.

The sub-menu appears.

4 Select “Move,” and press **ENTER**.



5 Select a new location for the title by pressing **↑/↓**, and press **ENTER**.

The title moves to the new location.

Dividing a Playlist title (Divide)

-RWVR

1 Press **TITLE LIST** to turn on the Title List (Playlist) menu.

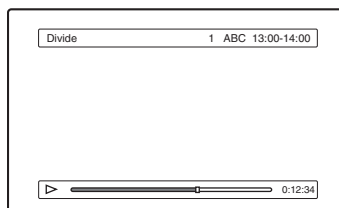
If the Title List (Original) menu appears, press **TOOLS** and select “Playlist.”

2 Select a title, and press **ENTER**.

The sub-menu appears.

3 Select “Divide,” and press **ENTER**.

The display for setting the dividing point appears. The title starts to play in the background.



4 Select the dividing point by pressing **◀/▶**, and press **ENTER**.

The display asks for confirmation. To change the dividing point, select “Change.”

5 Select “OK,” and press **ENTER**.

The display for entering the title name appears. To use the same title name as before, select “No.”

6 Select “Yes,” and press **ENTER** to enter a new name.

Follow the explanations on page 37. After you enter a new name, the title is divided in two.

Combining multiple Playlist titles (Combine)

-RWVR

1 Press TITLE LIST to turn on the Title List (Playlist) menu.

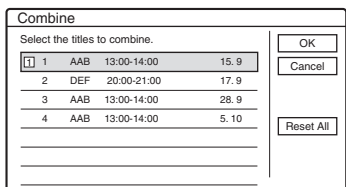
If the Title List (Original) menu appears, press TOOLS and select "Playlist."

2 Press TOOLS to select "Combine," and press ENTER.

The display for selecting titles appears.

3 Select a title, and press ENTER.

A number indicating the order in which you selected the title appears. To cancel the selection, press ENTER again.

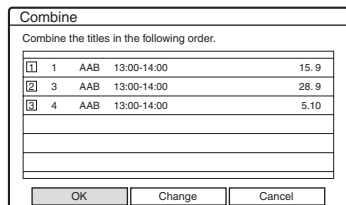


4 Repeat step 3 to select all of the titles you want to combine.

To cancel all of the selections, select "Reset All."

5 Select "OK," and press ENTER.

The list of titles to be combined appears. To change the selection, select "Change" and go to step 3.



6 Select "OK," and press ENTER.

The display for selecting a title name from among the selected titles appears. To enter a new name, select "Enter Text," and follow the explanations on page 37.

7 Select a name, and press ENTER.

The titles are combined.

Editing

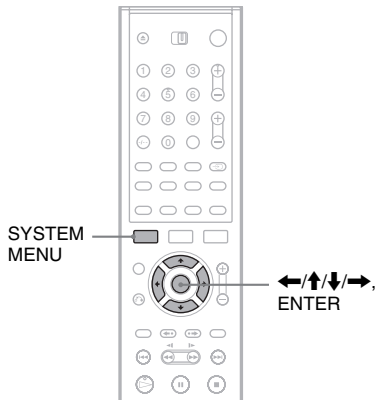
Settings and Adjustments

Using the Setup Displays

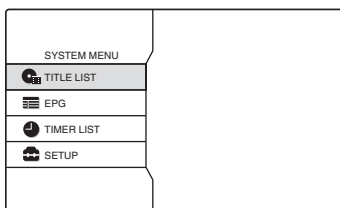
By using the Setup Displays, you can make various adjustments to items such as picture and sound, as well as select a language for the subtitles or Digital TV features settings. The Setup Displays are used in the following way.

Note

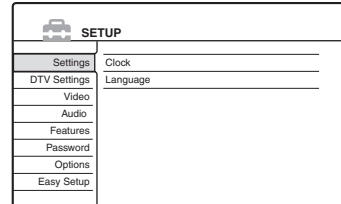
Playback settings stored in the disc take priority over the Setup Display settings, and not all of the functions described may work.



- 1 Press **SYSTEM MENU** while the recorder is in stop mode. The System Menu appears.

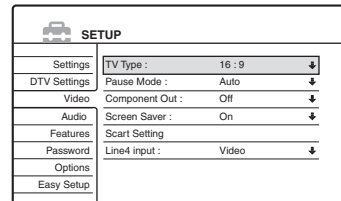


- 2 Select **"SETUP,"** and press **ENTER**. The Setup Display appears.



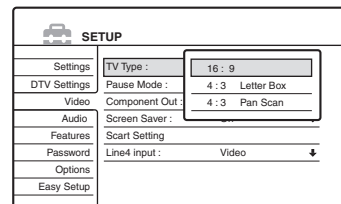
- 3 Select **"Settings," "DTV Settings," "Video," "Audio," "Features," "Password," "Options,"** or **"Easy Setup,"** and press **ENTER**.

The selected Setup Display appears. Example: "Video" setup

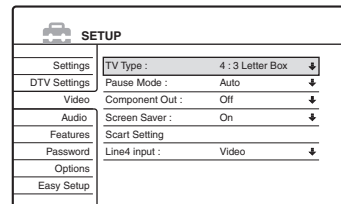


- 4 Select the item you want to set up, and press **ENTER**.

Available options for the item appear. Example: "TV Type"



- 5 Select an option, and press **ENTER**. The currently selected option is displayed next to the setup item. Example: when "4:3 Letter Box" is set.



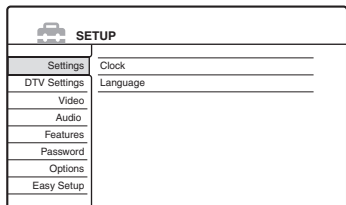
To turn off the display

Press **SYSTEM MENU** repeatedly.

Aerial Reception and Language Settings (Settings)

The Settings Setup helps you to make clock and language settings for the recorder.

Select “Settings” in the Setup Display. To use the display, see “Using the Setup Displays” (page 76).



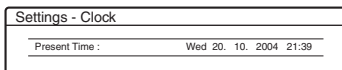
Clock

Normally the clock is set automatically thanks to the time and date information broadcasted by the local network package.

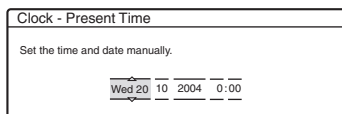
If the recorder does not receive a time signal from any service, you may set the clock manually. Therefore, please proceed as follows.

◆To set the clock manually

- 1 Follow steps 1 to 3 of “Using the Setup Displays” (page 76) to select “Settings” in the Setup Display.
- 2 Select “Clock,” and press ENTER.



- 3 Select “Present Time,” and press ENTER.



- 4 Press \uparrow/\downarrow to set the day, and press \rightarrow . Set the month, year, hour, and minutes in sequence. Press \leftarrow/\rightarrow to select the item to be set, then press \uparrow/\downarrow to set the numbers. The day of the week is set automatically.

To change the numbers, press \leftarrow to return to the item to be changed, and press \uparrow/\downarrow .

- 5 Press ENTER to start the clock.
- 6 Press the \curvearrowright button to come back to the Clock menu.

Language

DVD Menu (DVD VIDEO only)

Switches the language for the DVD menu.

Audio

Switches the language of the sound track. When you select “Original,” the language given priority in the disc (DVD VIDEO only) or broadcasted by a digital channel is selected.

Subtitle

Switches the language of the subtitles recorded on the disc (DVD VIDEO only) or broadcasted by a digital channel (when available). When you select “Audio Follow,” the subtitle language changes according to the language you selected for the sound track.

Hint

If you select “Others” in “DVD Menu,” “Subtitle,” or “Audio,” select and enter a language code from “Language Code List” (page 104) using the number buttons.

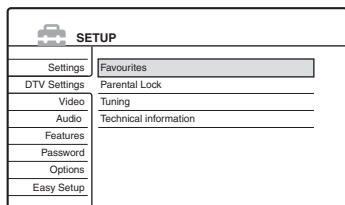
Note

If you select a language in “DVD Menu,” “Subtitle,” or “Audio” that is not recorded on the DVD VIDEO, one of the recorded languages will be automatically selected.

Digital TV settings (DTV Settings)

The DTV Settings Setup enables you to take full advantage of Digital TV Broadcasting services such as favourites channels setting or to prevent children's viewing unsuitable channels and programmes.

- 1 Press **SYSTEM MENU** while the recorder is in stop mode.
- 2 Select **"SETUP,"** and press **ENTER**.
- 3 Select **"DTV Settings,"** and press **ENTER**.
The DTV Settings Setup Display appears with the following options.



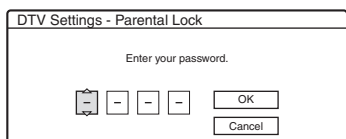
Favourites

The Favourite Display allows you to store and organize your favourite channels into one of four TV or four Radio lists. Please refer to page 42 for detailed Favourites Channels settings

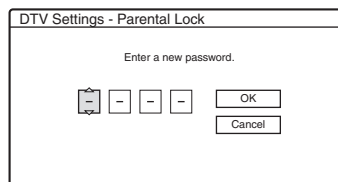
Parental Lock

The Parental Lock Display enables you to lock certain channels you consider unsuitable and to set an age limit so that any programme classed above that age by the broadcaster is restricted.

- 1 After step 3 above, select **"Parental Lock,"** and press **ENTER**.
 - When you have already registered a password, the display for entering the password appears.

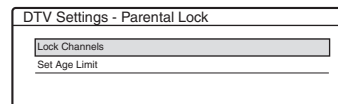


- If you have not yet registered a password, the display for registering a new password appears.



- 2 Enter your four-digit password using the **↑/↓** buttons or the number buttons, then select **"OK"** and press **ENTER**.

The Parental Lock menu appears



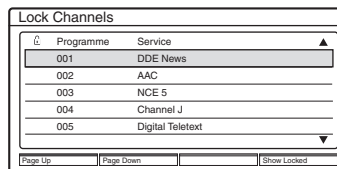
Note

If you forget your password, you will have to reset it by selecting **"Password"** under **"Factory Setup"** in **Options Setup** (page 90).

◆ To lock channels

- 1 Once the Parental Lock menu displayed, select **"Lock Channels,"** and press **ENTER**.

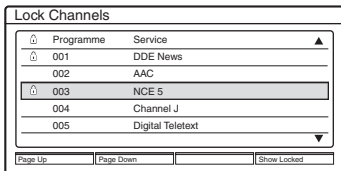
The DTV Settings- Lock Channels display appears.



This display shows all the TV channels available to you.

- 2 Press the **↑/↓** buttons or enter a channel number to highlight a channel you want to lock, then press the **ENTER** button.

A locked channel is identified by the **🔒** icon next to the programme number



If you do not wish to lock one of the five channels in the display, press the RED or GREEN button to view the previous or next five channels available.

- 3 Press the button to come back to the Parental Lock menu.

◆ **To unlock channels**

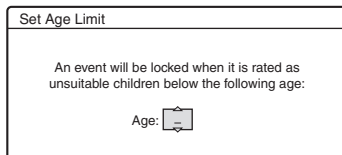
- 1 In Step 2 above press the buttons to highlight the channel you want to unlock, then press ENTER: the icon next to the programme number disappears.
- 2 Press the button to come back to the Parental Lock menu.

Hints

- Press the BLUE button to view the list showing only the locked channels.
- Press the BLUE button once again when you wish to return to the previous channel list display.

◆ **To set the Age Limit**

- 1 Once the Parental Lock menu displayed, select “Set Age Limit,” and press ENTER.



- 2 Press the buttons to set the desired age limit and press ENTER.

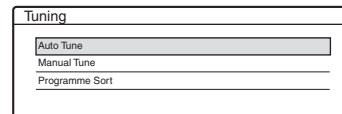
Notes

- To operate correctly, this feature relies on the broadcaster sending the correct age classification for each programme.
- If you select the Parental Lock channel activated, “This channel has been locked” appears on the gray screen and it is recorded.

Tuning

The Tuning Display allows you to tune your recorder automatically or manually and also change the order of the programmes on display. During these procedures you may be requested to enter your password. Refer to page 78 for information.

Follow steps 1 to 3 of “Digital TV settings (DTV Settings)” on page 78, then select “Tuning,” and press ENTER.



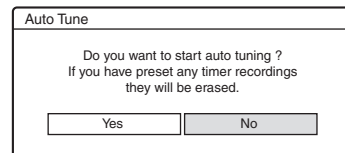
The DTV Settings - Tuning menu appears.

Auto Tune

This option enables you to capture and store automatically all available channels.

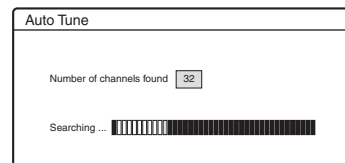
- 1 Once the DTV Settings - Tuning menu displayed, select “Auto Tune,” and press ENTER.

The Auto Tune Start Display appears.

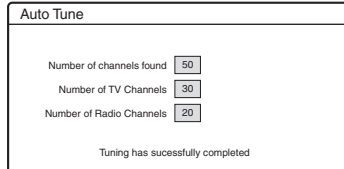


- 2 Select “Yes” in the menu option and press ENTER.

The Auto Tune display appears showing a tuning progress bar and the number of channels found.



When Auto Tune has ended, a completion display appears indicating the number of TV and Radio channels that have been found and stored.



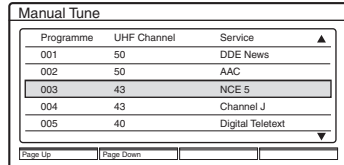
- 3 Press the ENTER button to remove the display and view the first channel captured.

Manual Tune

This option allows you to capture and store individual services.

- 1 Once the DTV Settings - Tuning menu displayed, select "Manual Tune," and press ENTER.

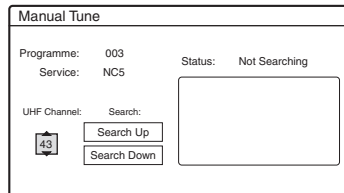
The Manual Tune Display appears showing a list of all the channels previously captured and stored.



If you want to display the previous or next five available channels, press the RED or GREEN button on your remote control.

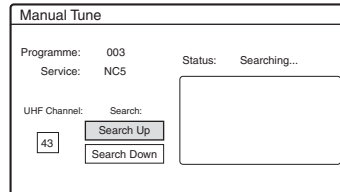
- 2 Press the \uparrow/\downarrow buttons or enter a channel number to select the programme number of your choice, then press the ENTER button.

The Tuning screen appears with the selected channel on view in the background

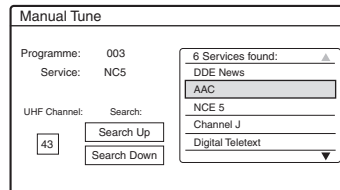


- 3 Press the $\rightarrow/\uparrow/\downarrow$ button to highlight either 'Search Up' or 'Search Down' then press the ENTER button to begin searching up or searching down.

The Service searching process starts.



After a while, when a service is found, the display shows a list of captured channels.



- 4 Press the \uparrow/\downarrow buttons to move around the list. Once the channel you wish to store is highlighted, press the ENTER button.
- 5 Once you have stored your desired channel, press the RETURN button repeatedly to return to the main menu.

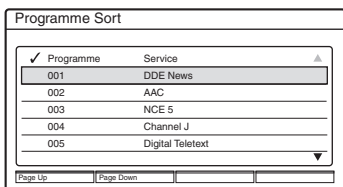
Note

After tuning, your receiver will continually monitor broadcast information to check for new channels. Should a new channel become available, it is detected and automatically added to your programme list. Normally it will then be available to view. However, if you notice a new channel that you are unable to view, please tune it in manually using the 'Manual Tune' procedure as explained above.

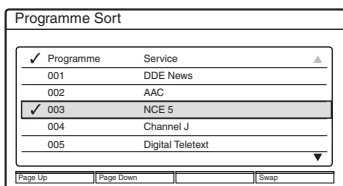
Programme Sort

This option allows you to change the channel order in the on-screen programme list.

- Once the DTV Settings - Tuning menu displayed, select "Programme Sort," and press ENTER. The Programme Sort Display appears showing the list of all tuned channels.

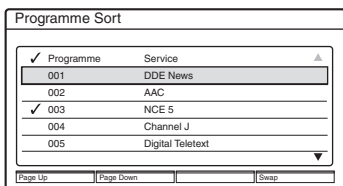


- Press the \uparrow/\downarrow buttons or enter a programme number to highlight the channel you wish to move, then press the ENTER button. A tick \checkmark icon appears next to the selected programme number and a Swap option appears in the display.



If you do not wish to choose from one of the five channels in the display, press the RED or GREEN button to view the previous or next five channels available.

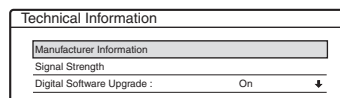
- Press the \uparrow/\downarrow buttons to highlight the programme number you wish your selected channel to appear on.



- Press the BLUE button to swap channel position. Your selected channel appears on the programme number selected in step 3.
- Repeat this procedure to move other channels.
- Once you have moved all channels as desired, press the RETURN button repeatedly to return to the main menu.

Technical Information

Follow steps 1 to 3 of "Digital TV settings (DTV Settings)" on page 78, then select "Technical Information," and press ENTER.

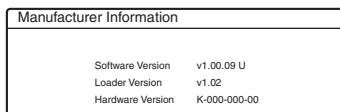


The DTV Settings - Technical Information menu appears.

Manufacturer Information

This information screen shows you the current version of software installed in your recorder.

- Once the DTV Settings - Technical Information displayed, select "Manufacturer Information," and press ENTER.



- After viewing the information displayed, press the \leftarrow button to come back to the Technical Information menu.

Signal Strength

This information screen shows the signal strength of the broadcast you are watching.

- Select "Signal Strength," in the DTV Settings - Technical Information display and press ENTER.

The Signal Strength display appears with the selected channel on view in the background.



The Signal Strength display coloured bars correspondences are as follows:

Good: \blacksquare (Green) Average: \square (Yellow) Poor: \square (Red)

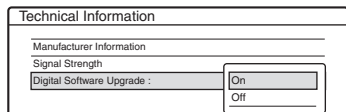
- Press the PROG +/- buttons to check the signal strength of the other tuned channels.
- After viewing the information displayed, press the \leftarrow button to come back to the Technical Information menu.

Digital Software Upgrade

Periodically Sony will issue upgrades for the software that was initially installed in your recorder. These upgrades will automatically be received and enabled. If desired, you can disable this option as follows:

- 1 Select "Digital Software Upgrade," in the DTV Settings - Technical Information display and press ENTER.

The Digital Software Upgrade menu option appears



- 2 Press the \uparrow/\downarrow buttons to highlight "Off," and press ENTER.

Notes

- Sony recommend that you always leave this option set to "On".
- To receive the upgrade, the unit must be powered on and watching a BBC channel. It will take up 30minutes to upgrade the unit. The new software will be available once the unit has been placed into standby, and then back to normal operating mode.

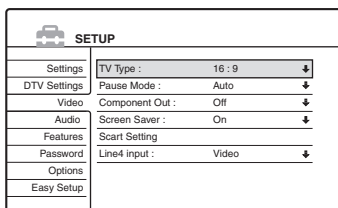
Video Settings (Video)

Video settings will adjust items related to the image, such as size and colour.

Choose the settings according to the type of TV, tuner, or decoder connected to the DVD recorder.

- 1 Press **SYSTEM MENU** while the recorder is in **stop mode**.
- 2 Select **"SETUP,"** and press **ENTER**.
- 3 Select **"Video,"** and press **ENTER**.

The Video Setup appears with the following options. The default settings are underlined.

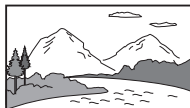


TV Type

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

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

16:9



4:3 Letter Box



4:3 Pan Scan



Note

Depending on the disc, “4:3 Letter Box” may be selected automatically instead of “4:3 Pan Scan” or vice versa.

Pause Mode (DVDs only)

Selects the picture quality in pause mode.

<u>Auto</u>	The picture, including subjects that move dynamically, is output with no jitter. Normally select this position.
<u>Frame</u>	The picture, including subjects that do not move dynamically, is output in high resolution.

Component Out

Selects whether or not to output video signals from the COMPONENT VIDEO OUT jacks.

<u>On</u>	Outputs the component video signals.
<u>Off</u>	Outputs no signals.

Notes

- When you set “Line1 Output” to “RGB,” you cannot set “Component Out” to “On.”
- When you connect the recorder to a monitor or projector via only the COMPONENT VIDEO OUT jacks, do not select “Off.” If you select “Off” in this case, the picture may not appear.

Screen Saver

The screen saver image appears when you do not use the recorder for more than 10 minutes while an on-screen display, such as the System Menu, is displayed on your TV screen. The screen saver image helps prevent your display device from becoming damaged (ghosting).

<u>On</u>	Turns on the screen saver function.
<u>Off</u>	Turns off the function.

Scart Setting

Sets the method of inputting/outputting signals from the SCART jacks on the rear panel of the recorder. Select an option for each of the items below according to the combination of jacks and methods that you are going to use.

◆**Line1 Output**

Selects a method of outputting video signals for the LINE 1-TV jack.

<u>RGB</u>	Outputs RGB signals.
<u>Video</u>	Outputs video signals.
<u>S Video</u>	Outputs S-video signals.

Notes

- If your TV does not accept S-video or RGB signals, no picture appears on the TV screen even if you select “S Video” or “RGB.” See the instructions supplied with your TV.
- You cannot select “RGB” when “Component Out” above is set to “On.”
- SMARTLINK is available only when “Video” is selected.

◆**Line3 Input**

Selects a method of inputting video signals for the LINE 3 jack. The pictures will not be clear if this setting does not match the type of video input signal.

<u>Video/RGB</u>	Inputs video signals or RGB signals.
<u>S Video</u>	Inputs S-video signals.

Settings and Adjustments

◆Line3 Output

Selects a method of outputting video signals for the LINE 3 jack.

<u>Video</u>	Outputs video signals.
S Video	Outputs S-video signals.

Line4 Input

Selects a method of inputting video signals for the LINE 4 IN jack on the rear panel of the recorder.

<u>Video</u>	Inputs video signals.
S Video	Inputs S-video signals.

Audio Settings (Audio)

The Audio Setup allows you to adjust the sound according to the playback and connection conditions.

- 1 Press **SYSTEM MENU** while the recorder is in stop mode.
- 2 Select **"SETUP,"** and press **ENTER**.
- 3 Select **"Audio,"** and press **ENTER**.

The Audio Setup appears with the following options. The default settings are underlined.

SETUP	
Settings	<u>Audio ATT :</u> Off ↓
DTV Settings	Audio DRC : Standard ↓
Video	Downmix : Dolby Surround ↓
Audio	Digital Out : On ↓
Features	Dolby Digital : D-PCM ↓
Password	MPEG : PCM ↓
Options	DTS : Off ↓
Easy Setup	

Audio ATT (attenuation)

If the playback sound is distorted, set this item to "On." The recorder reduces the audio output level. This function affects the output of the following jacks:

- LINE 2 OUT AUDIO L/R jacks
- LINE 1-TV jack
- LINE 3 jack

<u>On</u>	Select this when the playback sound from the speakers is distorted.
<u>Off</u>	Normally select this position.

Audio DRC (Dynamic Range Control) (DVDs only)

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

- LINE 2 OUT AUDIO L/R jacks
- LINE 1-TV jack
- LINE 3 jack
- DIGITAL OUT (OPTICAL or COAXIAL) jack only when "Dolby Digital" is set to "D-PCM" (page 85).

<u>Standard</u>	Normally select this position.
TV Mode	Makes low sounds clear even if you turn the volume down.
Wide Range	Gives you the feeling of being at a live performance.

Downmix (DVDs only)

Switches the method for mixing down to two channels when you play a DVD which has rear sound elements (channels) or is recorded in Dolby Digital format. For details on the rear signal components, see "Checking the Play Information and Playing Time" (page 35). This function affects the output of the following jacks:

- LINE 2 OUT AUDIO L/R jacks
- LINE 1-TV jack
- LINE 3 jack
- DIGITAL OUT (OPTICAL or COAXIAL) jack when "Dolby Digital" is set to "D-PCM" (page 85).

<u>Dolby Surround</u>	Normally select this position. Multi-channel audio signals are output to two channels for enjoying surround sounds.
Normal	Multi-channel audio signals are downmixed to two channels for use with your stereo.

Digital Out

Selects if audio signals are output via the DIGITAL OUT (OPTICAL or COAXIAL) jacks.

<u>On</u>	Normally select this position. When you select "On," see "To set the digital output signal" for further settings.
Off	The influence of the digital circuit upon the analogue circuit is minimal.

◆To set the digital output signal

The following setup items switch the method of outputting audio signals when you connect a component such as an amplifier (receiver) with a digital input jack.

For connection details, see "Connecting the Audio Cords" (page 17).

Select "Dolby Digital," "MPEG," and "DTS" after setting "Digital Out" to "On."

SETUP	
Settings	Audio ATT : Off ↓
DTV Settings	Audio DRC : Standard ↓
Video	Downmix : Dolby Surround ↓
Audio	Digital Out : On ↓
Features	Dolby Digital : D-PCM ↓
Password	MPEG : PCM ↓
Options	DTS : Off ↓
Easy Setup	

If you connect a component that does not accept the selected audio signal, a loud noise (or no sound) will come out from the speakers, and may affect your ears or cause speaker damage.

• Dolby Digital (DVDs only)

Selects the type of Dolby Digital signal.

<u>D-PCM</u>	Select this when the recorder is connected to an audio component lacking a built-in Dolby Digital decoder. You can select whether the signals conform to Dolby Surround (Pro Logic) or not by making adjustments to the "Downmix" item in Audio Setup (page 85).
Dolby Digital	Select this when the recorder is connected to an audio component with a built-in Dolby Digital decoder.

- **MPEG (DVD VIDEO only)**
Selects the type of MPEG audio signal.

<u>PCM</u>	Select this when the recorder is connected to an audio component without a built-in MPEG decoder. If you play MPEG audio sound tracks, the recorder outputs stereo signals via the DIGITAL OUT (COAXIAL) jack.
MPEG	Select this when the recorder is connected to an audio component with a built-in MPEG decoder.

- **DTS (DVD VIDEO only)**
Selects whether or not to output DTS signals.

<u>On</u>	Select this when the recorder is connected to an audio component with a built-in DTS decoder.
Off	Select this when the recorder is connected to an audio component without a built-in DTS decoder.

Note

When you use the DIGITAL OUT (COAXIAL) jack to listen to MPEG audio signals and set "MPEG" to "MPEG" in Audio Setup, no sound will come from your speakers if you select one of the TVS modes.

Recording and Parental Control Settings (Features)

The Features Setup allows you to adjust recording and parental control settings.

- 1 Press **SYSTEM MENU** while the recorder is in stop mode.
- 2 Select "**SETUP**," and press **ENTER**.
- 3 Select "**Features**," and press **ENTER**.

The Features Setup appears with the following options. The default settings are underlined.

SETUP	
Settings	TV Direct Rec : <u>On</u> ↓
DTV Settings	Auto Chapter : 6 Min ↓
Video	Parental Control
Audio	Colour System : <u>PAL</u> ↓
Features	
Password	
Options	
Easy Setup	

TV Direct Rec (DVD+RW/DVD-RW/DVD+R/DVD-R only)

<u>On</u>	Allows you to easily record what you are watching on the TV using SMARTLINK.
Off	Turns off the TV Direct Rec function.

Auto Chapter

Automatically divides a recording (a title) into chapters by inserting chapter markings at a specified interval. The markings are inserted while the recording is being made.

Off	No chapter mark is inserted.
<u>6Min</u>	Inserts chapter marks at approximately 6-minute intervals.
15Min	Inserts chapter marks at approximately 15-minute intervals.

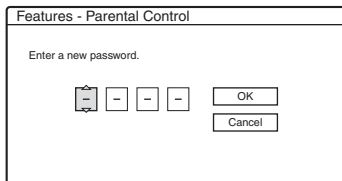
Notes

- Depending upon the size of the recording being made, the actual interval may vary from the interval selected in "Auto Chapter." The selected interval should only be used as an approximation to create chapters.
- Chapter marks are automatically entered where the recordings starts.

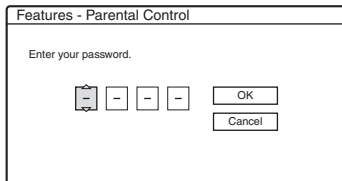
Parental Control (DVD VIDEO only)

Playback of some DVD VIDEOS can be limited according to a predetermined level, such as the age of the users. Scenes may be blocked or replaced with different scenes.

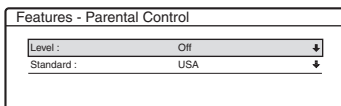
- 1 After step 3 above, select "Parental Control," and press ENTER.
 - If you have not entered a password, the display for registering a new password appears.



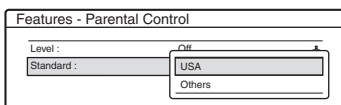
- When you have already registered a password, the display for entering the password appears.



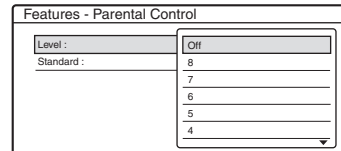
- 2 Enter your four-digit password using the number buttons, then select "OK" and press ENTER.



- 3 Select "Standard," and press **→** or ENTER. The selection items for "Standard" are displayed.



- 4 Select a geographic area as the playback limitation level, and press ENTER. The area is selected.
 - When you select "Others," press the number buttons to select and enter an area code in the table (see below). Then select "OK" and press ENTER.
- 5 Select "Level," and press ENTER. The selection items for "Level" are displayed.



The lower the value, the stricter the limitation.

- 6 Select the level, and press ENTER. The Parental Control setting is complete.

To cancel the Parental Control setting for the disc, set "Level" to "Off" in step 6.

To change the password, you will have to set it in the Password Setup Display (page 89).

Notes

- If you forget your password, you will have to reset it by selecting "Password" under "Factory Setup" in Options Setup (page 90).
- When you play discs which do not have the Parental Control function, playback cannot be limited on this recorder.
- Depending on the disc, you may be asked to change the Parental Control level while playing the disc. In this case, enter your password, then change the level.

◆Area code

Standard	Code number
Argentina	2044
Australia	2047
Austria	2046
Belgium	2057
Brazil	2070
Canada	2079
Chile	2090
China	2092
Denmark	2115
Finland	2165
France	2174
Germany	2109
India	2248
Indonesia	2238
Italy	2254
Japan	2276
Korea	2304
Malaysia	2363
Mexico	2362
Netherlands	2376
New Zealand	2390
Norway	2379
Pakistan	2427
Philippines	2424
Portugal	2436
Russia	2489
Singapore	2501
Spain	2149
Sweden	2499
Switzerland	2086
Thailand	2528
United Kingdom	2184

Colour System

Selects the colour system when playing VIDEO CDs (including Super VCDs).

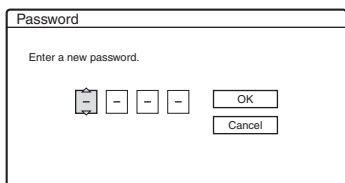
<u>PAL</u>	Plays a disc in PAL colour system.
NTSC	Plays a disc in NTSC colour system.

Parental Control (Password)

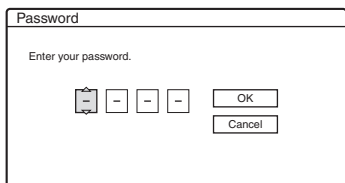
This Password Setup allow you to set or to modify the password that gives access to Parental Control settings.

- 1** Press **SYSTEM MENU** while the recorder is in stop mode.
- 2** Select **"SETUP,"** and press **ENTER**.
- 3** Select **"Password,"** and press **ENTER**.
The Password Setup Display appears

- If you have not yet set a password, the display for registering a new password appears.



- When you have already registered a password, the display for entering the password appears.



If you wish to change your password, first enter your current password using the number buttons, then select **"OK"** and press **ENTER**. The display for registering a new password appears.

- 4** Enter your new four-digit password using the number buttons, then select **"OK"** and press **ENTER**.

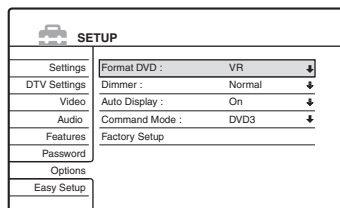
Note

If you forget your password, you will have to reset it by selecting **"Password"** under **"Factory Setup"** in Options Setup (page 90).

Disc and Remote Control Settings/Factory Settings (Options)

The Options Setup allows you to set up other operational settings.

- 1** Press **SYSTEM MENU** while the recorder is in stop mode.
- 2** Select **"SETUP,"** and press **ENTER**.
- 3** Select **"Options,"** and press **ENTER**.
The Options Setup appears with the following options. The default settings are underlined.



Format DVD (DVD-RW only)

The recorder automatically starts formatting in VR mode or Video mode, whichever is selected below, when a new, unformatted DVD-RW is inserted.

<u>VR</u>	Automatically formats the disc in VR mode.
Video	Automatically formats the disc in Video mode.

Dimmer

Adjusts the lighting of the front panel display.

<u>Normal</u>	Bright lighting.
Power Save	Low lighting. Turns off the lighting when the power is off.

Auto Display

<u>On</u>	Automatically displays information on the screen when the recorder is turned on, etc.
Off	Displays information only when DISPLAY is pressed.

Command Mode

Changes the Command Mode of the recorder if other DVD equipment is assigned the same Command Mode. Be sure to match the Command Mode switch on the remote to the setting made here. For details, see "If you have a Sony DVD player or more than one Sony DVD recorder" on page 21.

DVD1	Select this if the default Command Mode conflicts with other DVD equipment.
DVD2	Select this if the default Command Mode conflicts with other DVD equipment.
<u>DVD3</u>	The default Command Mode of the recorder.

Factory Setup

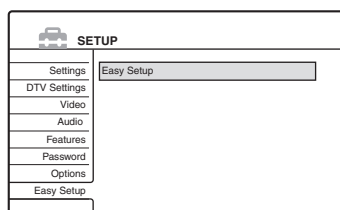
Allows you to select the setup settings by group, and return them to their default settings. Note that all of your previous settings will be lost.

- 1 After step 3 above, select "Factory Setup," and press **→** or ENTER.
The display for selecting a group of settings appears.
- 2 Select the group of settings you want to return to default from "Settings," "DTV Settings," "Video," "Audio," "Features," "Options," "Password," and "All," and press **→** or ENTER.
- 3 Select "Start," and press ENTER.
The selected settings return to their default settings.
- 4 Press ENTER when "Finish" appears.

Easy Setup (Resetting the Recorder)

Select this to run the Easy Setup programme.

- 1 Press **SYSTEM MENU** while the recorder is in stop mode.
- 2 Select "**SETUP**," and press **ENTER**.
- 3 Select "**Easy Setup**," and press **ENTER**.



- 4 Select "**Start**," and press **ENTER**.
- 5 Follow the instructions for Easy Setup from step 4 (page 23).

Additional Information

Troubleshooting

If you experience any of the following difficulties while using the recorder, use this troubleshooting guide to help remedy the problem before requesting repairs. Should any problem persist, contact the Sony Customer Information Centre on

08705 111 999

(Monday-Friday from 8:30am to 6:00pm)

Power

The power does not turn on.

- ➔ Check that the mains lead is connected securely.

Tuner

The channel is not found or stored or missed

- ➔ Make sure that your aerial is properly connected to the recorder.
- ➔ Confirm with your dealer that you are in an area that can receive a digital signal.
- ➔ Check your aerial installation.

Picture

There is no picture.

- ➔ Re-connect all connecting cords securely.
- ➔ The connecting cords are damaged.
- ➔ Check the connection to your TV (page 13).
- ➔ Switch the input selector on your TV (such as "VCR") so that the signal from the recorder appears on the TV screen.
- ➔ Check that "Scart Setting" in Video Setup is set to the appropriate item that conforms to your system (page 83).
- ➔ If you connect the recorder to your TV via only the COMPONENT VIDEO OUT jacks, set "Component Out" in Video Setup to "On" (page 83).
- ➔ This recorder cannot record NTSC signals.
- ➔ A scrambled channel is selected.

Picture noise appears.

- ➔ If the picture output signal from your recorder passes through your VCR to get to your TV, or if you are connected to a combination TV/VIDEO player, the copy-protection signal applied to some DVD programmes could affect picture

quality. If you still experience this problem even when you connect your recorder directly to your TV, try connecting your recorder to your TV's S VIDEO input.

- ➔ You are playing a disc recorded in a colour system that is different from your TV.

TV programme reception does not fill the screen.

- ➔ Select the correct source using the INPUT SELECT button, or select a channel of any TV programme using the PROG +/- buttons.

Picture break up

- ➔ Signal strength low
- ➔ Check aerial installation

TV programme pictures are distorted.

- ➔ Reorient or upgrade the TV aerial.
- ➔ Adjust the picture (see the TV's instruction manual).
- ➔ Place the recorder and TV farther apart.
- ➔ Place the TV and any bunched aerial cables farther apart.
- ➔ The RF cable is connected to the AERIAL OUT jack on the recorder. Connect the cable to the AERIAL IN jack.

TV channels cannot be changed.

- ➔ The Parental Lock is activated (page 78).
- ➔ A timer recording started, which changed the channels.

The picture from equipment connected to the recorder's input jack does not appear on the screen.

- ➔ If the equipment is connected to the LINE 1-TV jack, select "L1" in the front panel display by pressing PROG +/- or INPUT SELECT. If the equipment is connected to the LINE 2 IN jacks, select "L2" in the front panel display by pressing PROG +/- or INPUT SELECT. If the equipment is connected to the LINE 4 IN jacks, select "L4" in the front panel display by pressing PROG +/- or INPUT SELECT. If the equipment is connected to the LINE 3 jack, select "L3" in the front panel display by pressing PROG +/- or INPUT SELECT.
- ➔ When an S video cable is connected to the recorder's LINE 4 IN jack, set "Line4 Input" in Video Setup to "S Video" (page 84).

The playback picture or TV programme from the equipment connected through the recorder is distorted.

- ➔ If the playback picture output from a DVD player, VCR, or tuner goes through your recorder before reaching your TV, the copy-protection signal applied to some programmes could affect picture quality. Disconnect the playback equipment in question and connect it directly to your TV.

The picture does not fill the screen.

- ➔ Set "TV Type" in Video Setup in accordance with the aspect ratio of your TV (page 82).

The picture does not fill the screen, even though the aspect ratio is set in "TV Type" in Video Setup.

- ➔ The aspect ratio of the disc is fixed on your DVD.

The picture is black and white.

- ➔ Check that "Line1 Output" of "Scart Setting" in Video Setup is set to the appropriate item that conforms to your system (page 83).
- ➔ If you are using a SCART cord, be sure to use one that is fully wired (21 pins).

Sound**There is no sound.**

- ➔ Re-connect all connections securely.
- ➔ The connecting cord is damaged.
- ➔ The input source setting on the amplifier or the connection to the amplifier is incorrect.
- ➔ The recorder is in reverse play, fast-forward, slow motion, or pause mode.
- ➔ If the audio signal does not come through the DIGITAL OUT (OPTICAL or COAXIAL) jacks, check the Audio Setup settings (page 84).
- ➔ A scrambled channel is selected.

Sound distortion occurs.

- ➔ Set "Audio ATT" in Audio Setup to "On" (page 84).

Sound is noisy.

- ➔ When playing a CD with DTS sound tracks, noise will come from the LINE 2 OUT AUDIO L/R jacks, LINE 1-TV jack, or LINE 3 jack (page 62).

The sound volume is low.

- ➔ The sound volume is low on some DVDs. The sound volume may improve if you set "Audio DRC" in Audio Setup to "TV Mode" (page 85).
- ➔ Set "Audio ATT" in Audio Setup to "Off" (page 84).

An alternate audio track cannot be recorded or played.

- ➔ When recording from connected equipment, set "Line Audio Input" in TOOLS menu to "Bilingual" (page 57).
- ➔ If you have connected an AV amplifier to the DIGITAL OUT (OPTICAL or COAXIAL) jack and want to change the audio track for a DVD-RW (VR mode) during playback, set "Dolby Digital" in Audio Setup to "D-PCM" (page 85).

Sound break up

- ➔ Signal strength low.
- ➔ Check aerial installation.

Playback**The disc does not play.**

- ➔ The disc is upside down. Insert the disc with the labelled side facing up.
- ➔ The disc is not correctly inserted.
- ➔ Moisture has condensed inside the recorder. Remove the disc and leave the recorder turned on for about half an hour until the moisture evaporates.
- ➔ If the disc was recorded on another recorder, the recorder cannot play the disc if it was not finalized (page 34).

The disc does not start playback from the beginning.

- ➔ Resume play was activated (page 58).
- ➔ You have inserted a disc whose Title menu or DVD menu automatically appears on the TV screen when it is first inserted. Use the menu to start playback.

The recorder starts playing the disc automatically.

- ➔ The DVD VIDEO features an auto playback function.

Playback stops automatically.

- ➔ If the disc has an auto pause signal, the recorder stops playback at the auto pause signal.

Some functions such as Stop, Search, or Slow-motion Play cannot be performed.

- ➔ Depending on the disc, you may not be able to do some of the operations above. See the instruction manual supplied with the disc.


The language for the sound track cannot be changed.

- ➔ Multilingual tracks are not recorded on the disc being played.
- ➔ The DVD VIDEO prohibits the changing of the language for the sound track.
- ➔ Try changing the language using the DVD VIDEO's menu.

The subtitle language cannot be changed or turned off.

- ➔ Multilingual subtitles are not recorded on the DVD VIDEO.
- ➔ The DVD VIDEO prohibits changing of the subtitles.
- ➔ Try changing the subtitle using the DVD VIDEO's menu.
- ➔ The subtitles cannot be changed for the titles recorded on this recorder.

The angles cannot be changed.

- ➔ Multi-angles are not recorded on the DVD VIDEO being played.
- ➔ You are trying to change the angles when “” does not appear on the TV screen (page 60).
- ➔ The DVD VIDEO prohibits changing angles.
- ➔ Try changing the angle using the DVD VIDEO's menu.
- ➔ The angles cannot be changed for the titles recorded on this recorder.

The MP3 audio tracks do not play.

- ➔ The MP3 audio tracks are not recorded in a format that the recorder can play (page 66).

Recording/Timer recording/Editing**The programme position cannot be changed from the channel you are recording.**

- ➔ Set the TV's input source to “TV.”

Recording does not start immediately after you press .

- ➔ Operate the recorder only after “LOAD”, “FORMAT,” or “INFOWRITE” disappears from the front panel display.


Nothing was recorded even though you set the timer setting correctly.

- ➔ There was a power failure during recording.
- ➔ The recorder's internal clock stopped due to a power failure that lasted for more than 1 hour. Reset the clock (page 77).
- ➔ Disconnect the mains lead from the mains, and connect it again.
- ➔ The programme contains copy protection signals that restrict copying.
- ➔ Other timer setting overlapped the timer setting (page 52).
- ➔ There is no DVD inside the recorder.
- ➔ There is not enough disc space for the recording.
- ➔ A scrambled channel is selected.
- ➔ The Channel activated Parental Lock is selected.

Recording does not stop immediately after you press .

- ➔ It will take a few seconds for the recorder to input disc data before recording can stop.

Recording does not stop after you press .

- ➔ Open the remote's cover and press  REC STOP.

Timer recording is not complete or did not start from the beginning.

- ➔ There was a power failure during recording. If the power recovers when there is a timer recording, the recorder resumes recording. Should the power failure continue for more than 1 hour, reset the clock (page 77).
- ➔ Other timer setting overlapped the timer setting (page 52).
- ➔ Disc space was not enough.

Contents previously recorded were erased.

- ➔ Data that has been recorded on a DVD with a PC will be erased from the disc when the disc is inserted.

Recording from the equipment with a timer

Nothing was recorded even though you set the Synchro-Rec setting correctly.

- ➔ You forgot to turn off the connected equipment. Turn off the connected equipment and set the recorder to Synchro-Rec standby mode (page 55).
- ➔ The recorder was not set to the Synchro-Recording standby mode. Press SYNCHRO REC to have the recorder stand by for recording. Make sure the SYNCHRO REC indicator lights up on the front panel (page 55).
- ➔ The recorder is connected to the TV output jack of the connected equipment.

Synchro-Recording does not complete.

- ➔ The timer setting for the connected equipment overlapped the recorder's timer setting (page 56).
- ➔ There was a power failure during the recording.

Display

The clock has stopped.

- ➔ Set the clock again (page 77).
- ➔ The clock stopped due to a power failure that lasted for more than 1 hour. Reset the clock (page 77).

The TIMER REC indicator is flashing.

- ➔ The disc does not have enough space.
- ➔ Insert a recordable disc inside the recorder.

The recording mode indication is incorrect.

- ➔ When the recording is less than three minutes, the recording mode indication may be displayed incorrectly. The actual recording itself is correctly made in the selected recording mode.

The clock does not appear in the front panel display.

- ➔ "Dimmer" in Options Setup is set to "Power Save" (page 89).

Remote control

The remote does not function.

- ➔ Batteries are weak.
- ➔ The remote is too far from the recorder.
- ➔ The remote's manufacturer code returned to the default setting when you replaced the batteries. Reset the code (page 20).
- ➔ Turn on the recorder.
- ➔ The remote is not pointed at the remote sensor on the recorder.
- ➔ Different command modes are set for the recorder and remote. Set the same command mode (page 21).
- ➔ Set the TV/DVD switch to DVD (page 21).

Other Sony equipment responds to the remote.

- ➔ The same command mode is set for both the equipment and recorder. Set a different command mode for the recorder (page 21).

Others

The recorder does not operate properly.

- ➔ Restart the recorder. Press down I/⏻ on the recorder for more than ten seconds until "WELCOME" appears in the front panel display.
- ➔ When static electricity, etc., causes the recorder to operate abnormally, turn off the recorder and wait until the clock appears in the front panel display. Then, unplug the recorder and after leaving it off for a while, plug it in again.

Five numbers or letters are displayed in the front panel display.

- ➔ The self-diagnosis function was activated (see the table on page 95).

The disc tray does not open after you press (open/close).

- ➔ It may take a few seconds for the disc tray to open after you have recorded or edited a disc. This is because the recorder is adding disc data to the disc.

The disc tray does not open and "TRAY LOCKED" appears in the front panel display.

- ➔ Contact your Sony dealer or local authorized Sony service facility.

“RECOVERY” appears in the front panel display.

- ➔ The recorder’s recovery function was activated when the recorder was turned on because the power was turned off or failed during recording. Leave the recorder on until “RECOVERY” disappears from the front panel display.

“FAN ERROR” appears in the front panel display.

- ➔ Check that the vent on the rear of the recorder is not blocked. Then, turn off the recorder, wait until the clock appears in the front panel display, and disconnect the mains lead. Leave the recorder off for a while, then re-connect the mains lead, and press **I/⏻** on the recorder.

The Parental Lock does not work.

- ➔ Check the Parental Lock options settings (page 78).

Mechanical sound is heard when the recorder is off.

- ➔ While the recorder is updating the EPG information, operational noises (such as the internal fan) may be heard, even when the power is off. This is not a malfunction.

The disc tray does not open and you cannot remove the disc after you press **⏻ (open/close).**

- ➔ Turn off the recorder. Once the clock appears in the front panel display, disconnect the mains lead. Connect it again while pressing down **⏻** on the recorder, and release the button when the disc tray opens. Then, keep **I/⏻** on the recorder pressed for about ten seconds until “WELCOME” appears in the front panel display.

“LOCKED” appears in the front panel display.

- ➔ The disc tray is locked. Cancel the Child Lock (page 59).

Self-diagnosis Function (When letters/numbers appear in the display)

When the self-diagnosis function is activated to prevent the recorder from malfunctioning, a five-character service number (e.g., C 13 50) with a combination of a letter and four numbers appears in the front panel display. In this case, check the following table.

First three characters of the service number	Cause and/or corrective action
C 13	The disc is dirty. ➔ Clean the disc with a soft cloth.
C 31	The disc is not inserted correctly. ➔ Re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the recorder has performed the self-diagnosis function. ➔ Contact your nearest Sony dealer or local authorized Sony service facility and give the five-character service number. Example: E 61 10

Notes About This Recorder

On operation

- If the recorder is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the recorder. Should this occur, the recorder may not operate properly. In this case, remove the disc and leave the recorder turned on for about half an hour until the moisture evaporates.
- When you move the recorder, take out any discs. If you do not, the disc may be damaged.

On adjusting volume

Do not turn up the volume while listening to a section with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level section is played.

On cleaning

Clean the cabinet, panel, and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

On cleaning discs

Do not use a commercially available cleaning disc. It may cause a malfunction.

Notes about the discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface. Dust, fingerprints, or scratches on the disc may cause it to malfunction.



- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as the temperature may rise considerably inside the car.

- After playing, store the disc in its case.
- Clean the disc with a cleaning cloth. Wipe the disc from the centre out.



- Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for vinyl LPs.
- Do not use the following discs.
 - A disc that has a non-standard shape (e.g., card, heart).
 - A disc with a label or sticker on it.
 - A disc that has cellophane tape or sticker adhesive on it.

Specifications

System

Laser: Semiconductor laser

Transmission standards: DVB-T

Channel coverage:

UHF channels B21 - B69

Aerial out: 75-ohm asymmetrical aerial socket

Video recording format: MPEG Video

Audio recording format/applicable bit rate:

Dolby Digital/2 ch, 256 kbps

When you play PCM sound tracks with a 96 kHz sampling frequency, the output signals from the DIGITAL OUT (OPTICAL or COAXIAL) jack are converted to 48 kHz sampling frequency.

Inputs and outputs

LINE 2 OUT

(AUDIO): Phono jack/2 Vrms/10 kilohms

(VIDEO): Phono jack/1.0 Vp-p

(S VIDEO): 4-pin mini DIN/Y:1.0 Vp-p, C: 0.3 Vp-p (PAL)

LINE 2 IN/LINE 4 IN

(AUDIO): Phono jack/2 Vrms/more than 22 kilohms

(VIDEO): Phono jack/1.0 Vp-p

(S VIDEO): 4-pin mini DIN/Y:1.0 Vp-p, C: 0.3 Vp-p (PAL)

LINE 1 -TV: 21-pin

CVBS IN/OUT

S-Video/RGB OUT (upstream)

LINE 3: 21-pin

CVBS IN/OUT

S-Video/RGB IN

S-Video OUT (downstream)

Decoder

DIGITAL OUT (OPTICAL): Optical output jack/-18 dBm (wave length: 660 nm)

DIGITAL OUT (COAXIAL): Phono jack/0.5 Vp-p/75 ohms

COMPONENT VIDEO OUT

(Y, P_B/C_B, P_R/C_R):

Phono jack/Y: 1.0 Vp-p, P_B/C_B: 0.7 Vp-p,

P_R/C_R: 0.7 Vp-p

General

Power requirements: 220-240 V AC, 50/60 Hz

Power consumption: 41W

Dimensions (approx.): 430 × 85 × 346 mm (width/height/depth) incl. projecting parts

Mass (approx.): 4.9 kg

Operating temperature: 5 °C to 35 °C

Operating humidity: 25 % to 80 %

Supplied accessories:

Audio/video cord (1)

Mains lead (1)

Aerial cable (1)

Remote commander (remote) (1)

R6 (size AA) batteries (2)

Specifications and design are subject to change without notice.

Compatible colour systems

This recorder is designed to record using the PAL colour system and play back using the PAL or NTSC colour systems.

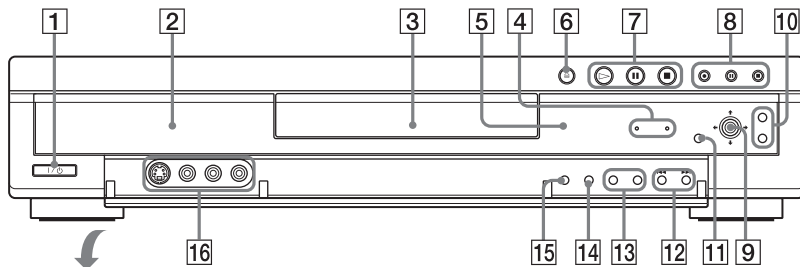


Guide to Parts and Controls

For more information, see the pages in parentheses.

Front panel

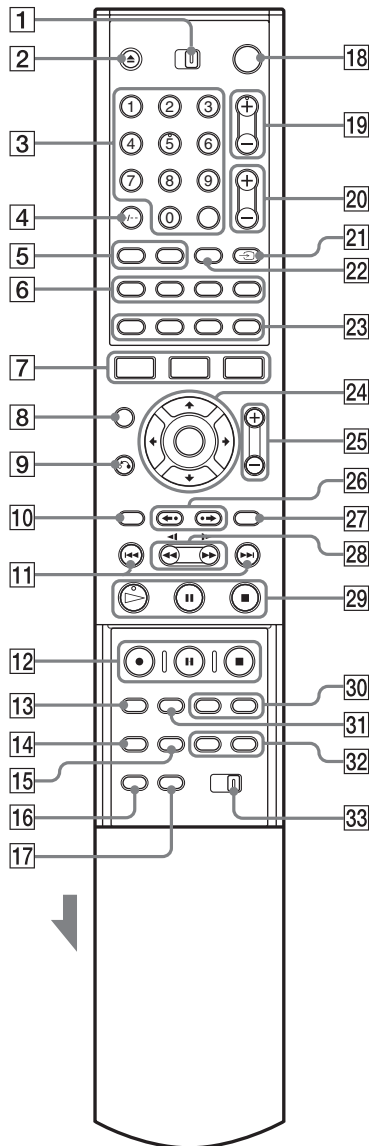
Buttons on the recorder have the same function as the buttons on the remote if they have the same or similar names.



- 1** I/⏻ (on/standby) button (22)
- 2** Front panel display (36, 100)
- 3** Disc tray (46)
- 4** TIMER REC indicator (46)
SYNCHRO REC indicator (55)
- 5** □ (remote sensor) (19)
- 6** ⏪ (open/close) button (46)
- 7** ▷ (play) button (58)
 - ⏸ (pause) button (60)
 - (stop) button (58)
- 8** ● REC button (52)
 - ⏸ REC PAUSE button (52)
 - REC STOP button (52)
- 9** ⏪/⏩/⏴/⏵/ENTER button (22)
- 10** SYSTEM MENU button (29)
TOOLS button (30)
- 11** ↶ RETURN button (30)
- 12** ⏮/⏭ (previous/next) buttons (60)
- 13** PROGRAM +/- buttons (52)
- 14** INPUT SELECT button (57)
- 15** REC MODE button (45)
- 16** LINE 2 IN (S VIDEO/VIDEO/AUDIO L/
R) jacks (27)

Remote

Buttons on the remote have the same function as the buttons on the recorder if they have the same or similar names. Buttons with an orange dot next to them can be used with your TV when the TV/DVD switch is set to TV.



- 1 TV/DVD switch (20)
- 2 ▲ (open/close) button (46, 60)
- 3 Number buttons (37, 65)*
SET button (37)
The number 5 button has a tactile dot.
- 4 CLEAR/-/- (ten digit) button (37)
- 5 ○○○ (audio) button (60)
⋯ (subtitle) button (60)
- 6 EPG button (38, 48)
 Favourite button (43)
 INFO button (40)
 Text button (42)
- 7 SYSTEM MENU button (29)
TITLE LIST button (30, 58, 69)
TOOLS button (30)
- 8 CURSOR MODE button (30)
- 9 ↶ RETURN button (30)
- 10 TOP MENU button (58)
- 11 ◀◀ (previous)/▶▶ (next) buttons (60)
- 12 ● REC button (52)
▬▬ REC PAUSE button (52)
■ REC STOP button (52)
- 13 REC MODE button (45)
- 14 (angle) button (60)
- 15 SUR (surround) button (60)
- 16 SYNCHRO REC button (55)
- 17 **TIMER** button (46)
- 18 (on/standby) button (22)
- 19 PROG (programme) +/- buttons* (52)
The + button has a tactile dot.
- 20 (volume) +/- buttons (20)
- 21 (TV/video), TV/DVD button (20)
- 22 TV/Radio button (42)
- 23 Coloured multimedia applications & interactive services control buttons (38)
- 24 /ENTER button (22)
- 25 ZOOM +/- buttons (30)

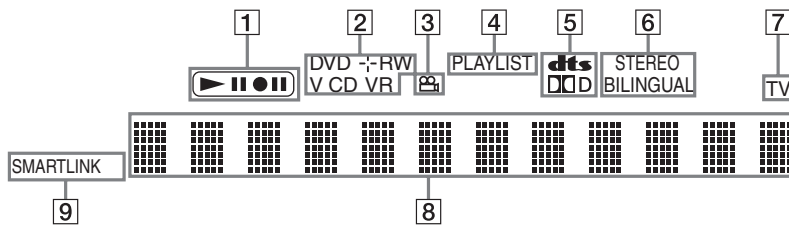
Additional Information

→ continued 99

- 26** ◀▶ (instant replay)/▶▶ (instant advance) buttons (60)
- 27** MENU button (58)
- 28** ◀◀◀/▶▶▶ (search) buttons (60)
- 29** ▷ (play) button* (58)
The button has a tactile dot.
⏸ (pause) button (60)
■ (stop) button (58)
- 30** CHAPTER MARK/ERASE buttons (72)
- 31** INPUT SELECT button (57)
- 32** DISPLAY button (35)
TIME/TEXT button (35)
- 33** COMMAND MODE switch (DVD 1,2,3) (21)

* Use the tactile dot as a reference when operating the recorder.

Front panel display



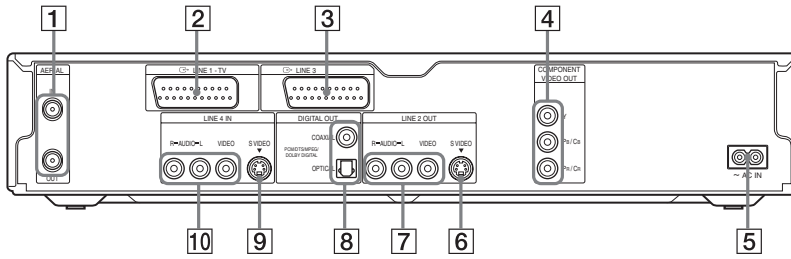
- 1** Playing/recording status
- 2** Disc type*/recording format
- 3** ∞ (angle) indicator (60)
- 4** PLAYLIST indicator (31)
- 5** Audio signal indicators (35)
- 6** STEREO/BILINGUAL indicators (55)
- 7** TV indicator (52)
- 8** Displays the following (36):
- Playing time/remaining time
 - Current title/chapter/track/index number
 - Recording time/recording mode
 - Clock
 - Programme position
 - TV Direct Rec indication (52): "TV" appears in the right most two digits.
- 9** SMARTLINK indicator (15)

* Displays DATA CDs as "CD."

Hint

You can turn off the front panel display when the recorder is turned off by setting "Dimmer" to "Power Save" in Options Setup (page 89).

Rear panel



- | | |
|---|--|
| 1 AERIAL IN/OUT jacks (13) | 7 LINE 2 OUT (AUDIO L/R/VIDEO) jacks (14, 17) |
| 2 LINE 1 – TV jack (14) | 8 DIGITAL OUT (COAXIAL/OPTICAL) jacks (17) |
| 3 LINE 3 jack (26) | 9 LINE 4 IN (S VIDEO) jack (27) |
| 4 COMPONENT VIDEO OUT (Y, Pb/Cb, Pr/Cr) jacks (14) | 10 LINE 4 IN (AUDIO L/R/VIDEO) jacks (27) |
| 5 AC IN terminal (19) | |
| 6 LINE 2 OUT (S VIDEO) jack (14) | |

Additional Information

Glossary

Chapter (page 65)

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

Copy protection signals (page 45)

Copy restriction set by copyright owners, etc. These signals are included in some software or TV programmes and restrict recording on this recorder.

Dolby Digital (page 85)

Digital audio compression technology developed by Dolby Laboratories. This technology conforms to multi-channel surround sound. The rear channel is stereo and there is a discrete subwoofer channel in this format. Dolby Digital provides the same discrete channels of high quality digital audio found in "Dolby Digital" theater surround sound systems.

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

DTS (page 85)

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

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

DVD+RW (page 8)

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

DVD-RW (page 8)

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

DVD+R (page 8)

A DVD+R (read "plus R") is a recordable disc that is the same size as a DVD VIDEO. Contents can be recorded only once to a DVD+R, and will have the same format as a DVD VIDEO.

DVD-R (page 8)

A DVD-R is a recordable disc that is the same size as a DVD VIDEO. Contents can be recorded only once to a DVD-R, and will have the same format as a DVD VIDEO.

DVD VIDEO (page 8)

A disc that contains up to eight hours of moving pictures on a disc the same diameter as a CD. The data capacity of a single-layer and single-sided DVD is 4.7 GB (Giga Byte), which is 7 times that of a CD. The data capacity of a double-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD is 9.4 GB, and double-layer and double-sided DVD is 17 GB. The picture data uses the MPEG 2 format, which is a worldwide standard of digital compression technology. The picture data is compressed to about 1/40 (average) of its original size. The DVD also uses a variable rate coding technology that changes the data to be allocated according to the status of the picture. Audio information is recorded in a multi-channel format, such as Dolby Digital, allowing you to enjoy a more real audio presence.

Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided on the DVD.

EPG (page 38)

The Electronic Program Guide is a guide showing programmes which can be displayed on a conventional television (via the Digital Terrestrial Television tuner included in this recorder) as the now and next programmes or the television schedule for a day or more at a time.

MPEG Audio (page 86)

International standard coding system used to compress audio digital signals authorized by ISO/IEC. MPEG 2, used on DVDs, conforms to up to 7.1-channel surround.

Original (page 68)

Titles actually recorded on a DVD-RW (VR mode). Erasing original titles frees up disc space.

Playlist (page 68)

Playback information created from the actual recordings on a DVD-RW (VR mode). A Playlist leaves the original titles as they are, and contains only the information needed to control playback. A Playlist title takes up very little disc space.

Title (page 65)

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

Track (page 65)

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

Language Code List

For details, see page 77.

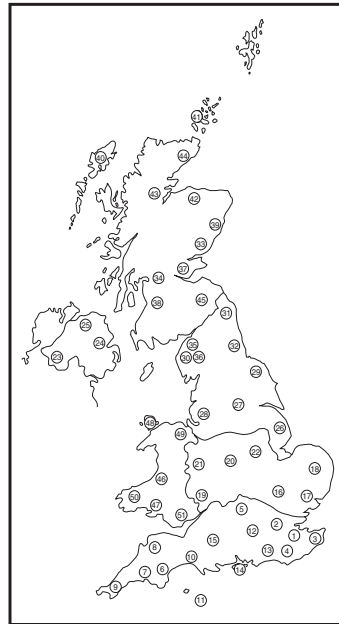
The language spellings conform to the ISO 639: 1988 (E/F) standard.

Code Language	Code Language	Code Language	Code Language
1027 Afar	1183 Irish	1347 Maori	1507 Samoan
1028 Abkhazian	1186 Scots Gaelic	1349 Macedonian	1508 Shona
1032 Afrikaans	1194 Galician	1350 Malayalam	1509 Somali
1039 Amharic	1196 Guarani	1352 Mongolian	1511 Albanian
1044 Arabic	1203 Gujarati	1353 Moldavian	1512 Serbian
1045 Assamese	1209 Hausa	1356 Marathi	1513 Siswati
1051 Aymara	1217 Hindi	1357 Malay	1514 Sesotho
1052 Azerbaijani	1226 Croatian	1358 Maltese	1515 Sundanese
1053 Bashkir	1229 Hungarian	1363 Burmese	1516 Swedish
1057 Byelorussian	1233 Armenian	1365 Nauru	1517 Swahili
1059 Bulgarian	1235 Interlingua	1369 Nepali	1521 Tamil
1060 Bihari	1239 Interlingue	1376 Dutch	1525 Telugu
1061 Bislama	1245 Inupiak	1379 Norwegian	1527 Tajik
1066 Bengali; Bangla	1248 Indonesian	1393 Occitan	1528 Thai
1067 Tibetan	1253 Icelandic	1403 (Afan)Oromo	1529 Tigrinya
1070 Breton	1254 Italian	1408 Oriya	1531 Turkmen
1079 Catalan	1257 Hebrew	1417 Punjabi	1532 Tagalog
1093 Corsican	1261 Japanese	1428 Polish	1534 Setswana
1097 Czech	1269 Yiddish	1435 Pashto; Pushto	1535 Tonga
1103 Welsh	1283 Javanese	1436 Portuguese	1538 Turkish
1105 Danish	1287 Georgian	1463 Quechua	1539 Tsonga
1109 German	1297 Kazakh	1481 Rhaeto- Romance	1540 Tatar
1130 Bhutani	1298 Greenlandic	1482 Kirundi	1543 Twi
1142 Greek	1299 Cambodian	1483 Romanian	1557 Ukrainian
1144 English	1300 Kannada	1489 Russian	1564 Urdu
1145 Esperanto	1301 Korean	1491 Kinyarwanda	1572 Uzbek
1149 Spanish	1305 Kashmiri	1495 Sanskrit	1581 Vietnamese
1150 Estonian	1307 Kurdish	1498 Sindhi	1587 Volapük
1151 Basque	1311 Kirghiz	1501 Sangho	1613 Wolof
1157 Persian	1313 Latin	1502 Serbo- Croatian	1632 Xhosa
1165 Finnish	1326 Lingala	1503 Singhalese	1665 Yoruba
1166 Fiji	1327 Laothian	1505 Slovak	1684 Chinese
1171 Faroese	1332 Lithuanian	1506 Slovenian	1697 Zulu
1174 French	1334 Latvian; Lettish		
1181 Frisian	1345 Malagasy		1703 Not specified

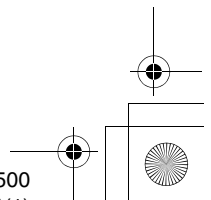
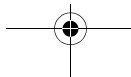
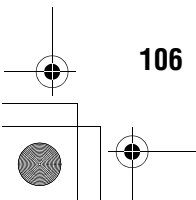
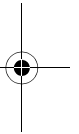
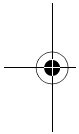
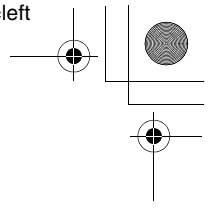
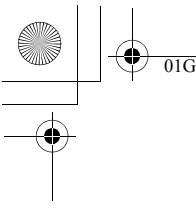
Digital TV Channel List

Only the main transmitters are listed. For further details or updates refer to the web site
http://www.bbc.co.uk/reception/tv_transmitters/

MAIN TRANSMITTERS	BBC	ITV&C4	SDN	MuxB	MuxC	MuxD
London & South East						
① Bluebell Hill	59	24	27	45	42	39
② Crystal Palace	25	22	32	28	34	29
③ Dover	68	61	55	58	57	60
④ Heathfield	34	29	48	47	54	51
⑤ Oxford	34	68	51	52	48	29
South -West						
⑥ Beacon Hill	52	61	58	54	56	64
⑦ Caradon Hill	34	31	48	21	24	27
⑧ Huntshaw Cross	54	58	61	64	53	57
⑨ Redruth	39	42	45	49	43	50
⑩ Stockland Hill	22	28	25	32	30	34
Channel Islands						
⑪ Fremont Point	No Digital Transmission					
South						
⑫ Hannington	50	43	40	46	44	41
⑬ Midhurst	56	65	62	59	64	60
⑭ Rowridge	23	52	30	32	26	33
West						
⑮ Mendip	59	55	62	65	56	67
East						
⑯ Sandy Heath	42	45	43	67	40	46
⑰ Sudbury	49	68	48	39	54	50
⑱ Tacolneston	63	60	53	58	61	64
Midlands (West)						
⑲ Ridge Hill	53	57	60	63	42	45
⑳ Sutton Coldfield	41	44	47	51	52	55
㉑ The Wrekin	21	31	24	27	53	57
Midlands (East)						
㉒ Waltham	49	23	26	33	45	42
Northern Ireland						
㉓ Brougher Mountain	30	34	23	26	29	33
㉔ Divis	29	33	23	26	48	34
㉕ Limavady	67	58	53	57	60	63
North						
㉖ Belmont	30	48	68	66	60	57
㉗ Emley Moor	52	40	43	46	50	49
North-West						
㉘ Winter Hill	56	66	68	67	60	63
North-East						
㉙ Bilsdale	34	21	31	24	27	42
㉚ Caldbeck	25	23	26	39	45	42
㉛ Chatton	40	50	43	46	47	51
㉜ Pontop Pike	48	55	59	62	65	53
Scotland						
㉝ Angus	68	66	59	62	56	65
㉞ Black Hill	41	47	44	51	55	65
㉟ Sandale	No Digital Transmission					
㊱ Caldbeck	No Digital Transmission					
㊲ Craigkelly	33	29	23	26	42	39
㊳ Darvel	22	25	32	28	30	34
㊴ Durris	30	34	52	51	41	44
㊵ Eitshal	34	30	22	25	28	32
㊶ Keelylang Hill	48	52	41	44	47	51
㊷ Knock More	34	30	53	57	60	56
㊸ Rosemarkie	47	51	41	44	46	50
㊹ Rumster Forest	28	22	25	32	62	59
㊺ Selkirk	53	57	60	63	66	56
Wales						
㊻ Blaenplwyf	28	22	25	32	29	33
㊼ Carmel	55	65	59	62	68	66
㊽ Llanddona	50	54	58	61	64	46
㊾ Moel-y-Parc	54	58	61	64	30	34
㊿ Presely	47	51	39	42	45	49
① Wenvoe	30	34	40	50	43	46



Additional Information



Index

Words in quotations appear in the on-screen displays.

Numerics

16:9 23, 82
4:3 Letter Box 23, 82
4:3 Pan Scan 23, 82

A

“A-B Erase” 70
Adjusting
 playback picture 62
 playback sound 63
 recording picture 54
Aerial 13
Album 35, 66
Album number 35
“Album Search” 65
Angle 60
Area code 88
“Audio” 77
Audio 60, 84
“Audio ATT” 84
“Audio Connection” 24
Audio cord 17
“Audio DRC” 85
“Audio Filter” 63
“Audio Settings” 63
“Auto Chapter” 86
“Auto Display” 90
Auto Tune 79

B

Batteries 19
“Bilingual” 55
“BNR” 62
“Brightness” 54, 63

C

“C NR” 62
“Capture” 73
“Capture All” 73
CD 10
“Change IN” 73
“Change OUT” 73

Chapter 35, 55, 72, 102
CHAPTER MARK 72
Chapter number 35
“Chapter Search” 65
“Chasing Playback” 64
Chasing Playback 64
“Check Overlap” 50
“Check Scenes” 73
Checking/changing/cancel-
ling timer settings (Timer
List) 51
Child Lock 59
Cleaning discs 96
Clock 23, 77
“Colour” 54, 62
“Colour System” 88
Colour systems 97
“Combine” 75
“Command Mode” 22, 90
“Component Out” 83
Component video input 15
COMPONENT VIDEO OUT
14
Connecting
 the aerial cable 13
 the audio cords 17
 the video cords 14
“Contrast” 54, 62
Controlling TVs with the
remote 20
Copy control signals 45
Copy protection 102
Copy-Free 45
Copy-Never 45
Copy-Once 45
CPRM 8
“Create Playlist” 72
Creating chapters 72
Cursor mode 31

D

DATA CD 10
“Digital Out” 85
Digital Services
 Digital Text viewing 41
 EPG 38
 Favourites 42
 Index 44
 Programme information

40
Digital Software Upgrade 82
“Dimmer” 89
“Disc Info” 32
Disc Map 71
“Disc Name” 33
Disc settings 32, 89
Disc space 33
Disc types 8
Display
 front panel display 36,
 100
 On-screen display 29
 Setup Display 76
“Divide” 74
Dolby Digital 18, 24, 85, 102
“Downmix” 85
DTS 24, 86, 102
“DVD Menu” 77
DVD VIDEO 10, 102
DVD+R 8, 102
DVD+RW 8, 102
DVD-R 8, 102
DVD-RW 8, 102
DVD-RWs (Video mode) 68
“DVE” 62

E

Easy Setup 22, 90
Editing 68, 72
Enter characters 37
EPG
 Viewing a list of
 available channels 38
 Viewing channels related
 to a specific category. 39
“Erase” 51, 69, 73
“Erase All” 33
“Erase Titles” 70
“Extend Rec” 47

F

- “Factory Setup” 90
- Favourites
 - Deleting a channel from the Favourites List 43
 - Moving to a different favourite list 43
 - Setting a favourite list 42
 - Watching or listening to a favourite channel 43
- “Features” 86
- “Finalize” 34
- Finalizing 34
- “Format” 33
- “Format DVD” 89
- Formatting 33
- Freeze frame 61
- Front panel 98
- Front panel display 36, 100

G

- GB 33

H

- Handling discs 96
- “Hue” 62

I

- Index 44
- INPUT SELECT 57
- Interlace 103
- Interlace format 103

L

- Labelling 33
- Language 77
- LINE 2 IN 27
- LINE 3 26
- LINE 4 IN 27
- “Line Audio Input” 55, 57
- “Line Rec. Picture Size” 54
- “Line1 Output” 24, 83
- “Line3 Input” 83
- “Line3 Output” 84
- “Line4 Input” 84

M

- Mains lead 19
- Manual Clock Set 77
- Manual Tune 80
- Manufacturer Information 81
- MARK ERASE 72
- MENU 58
- Menu
 - DVD’s Menu 58
 - Top menu 58
- “Modify” 51
- “Move” 73, 74
- MP3 audio tracks 66
- MPEG 86, 103

N

- Number buttons 37

O

- One Touch Menu 59
- One Touch Play 59
- One Touch Timer 47
- On-screen display
 - Setup Display 76
 - Sub-menu 29
 - System Menu 29
 - TOOLS menu 30
- “Options” 89
- Original 31, 68, 103

P

- Page mode 31
- Parental Control 59, 87
- Parental Lock 78
- Parts and controls 98
- “Password” 89
- “Pause Mode” 83
- “PB Video Equalizer” 62
- PBC 58
- Picture quality 54, 62
- Picture size 54
- “Play Beginning” 58
- Play mode 35
- Playable discs 10
- Playback 10, 35, 58, 61
 - fast forward 61
 - fast reverse 61
 - Freeze Frame 61

- instant advance 61
- instant replay 61
- Resume Play 58
 - Slow-motion play 61
- Playing status bar 35
- Playlist 31, 68, 72, 103
- “Present Time” 77
- “Preview” 73
- Programme information 40
- Programme Sort 81
- “Protect” 70
- “Protect Disc” 33
- Protection
 - disc 33
 - title 69

Q

- Quick guide to disc types 8
- Quick Timer 53

R

- Rear panel 101
- REC 52
- “Rec Mode” 54
- Rec Mode Adjust 47
- “Rec NR” 54
- REC PAUSE 53
- “Rec Settings” 54
- REC STOP 53
- “Rec Video Equalizer” 54
- Recordable discs 8
- Recording 45, 55, 86
 - picture adjustment 54
 - recording format 8
 - Recording mode 45, 55
 - Recording time 55
 - while watching another programme 53
- Recording time 45
- RECOVERY 95
- Region code 11
- Remaining time 36
- Remote 19, 99
- Resetting the recorder 90
- Resume Play 58
- “RGB” 24, 83

S

S VIDEO 15
 "S Video" 24, 83
 "Scart Setting" 83
 Scene List 73
 Screen Saver 83
 "Search" 65
 Searching
 fast reverse/fast forward
 61
 locating the beginning of
 the title/chapter/track 61
 Search mode 65
 SET 20, 37
 "Set Thumbnail" 70
 "Settings" 77
 Setup Display 76
 Signal Strength 81
 Simultaneous Rec and Play 64
 SMARTLINK 15
 Sort 31
 Sound quality 63
 "Stereo" 57
 Sub-menu 29
 Subtitle 60, 77
 Super VIDEO CD 10
 Surround 61
 Synchro Rec 55
 System Menu 29, 76

T

Technical Information 81
 Thumbnail picture 31
 "Time Search" 65
 TIME/TEXT 36
 TIMER 46
 Timer List 51
 Timer recording
 check/change/cancel 49,
 51
 EPG timer setting 48
 manual timer setting 46
 Rec Mode Adjust 47
 Synchro Rec 55
 Title 35, 103
 TITLE LIST 58
 Title List 30, 58
 Sort 31
 Thumbnail 31

Zoom 30

"Title Name" 70
 Title number 35
 "Title Search" 65
 TOOLS menu 30
 TOP MENU 58
 Track 103
 "Track Search" 65
 Troubleshooting 91
 TV Direct Rec 53, 86
 "TV Type" 23, 82
 TV/DVD 53
 TV/DVD switch 20
 TVS (TV Virtual Surround)
 61

U

"Unfinalize" 34
 Usable discs 8, 10

V

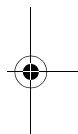
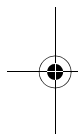
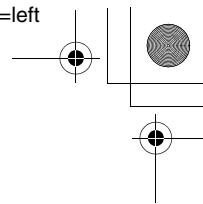
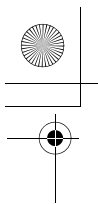
"Video" 24, 82, 83
 VIDEO CD 10
 Video cord 14
 Video input 15
 Video mode 8
 "Video Settings" 62
 VR mode 8, 68

Y

"Y NR" 62

Z

Zoom 30



Printed on 100% recycled paper using
VOC (Volatile Organic Compound)-free
vegetable oil based ink.

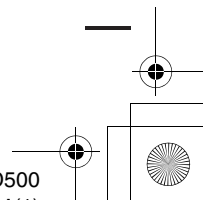
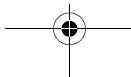
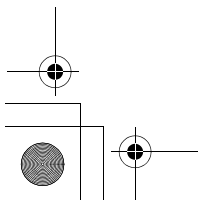


* I - 2 1 8 8 3 9 3 1 1 4 *

2-188-393-11(1)

Sony Corporation Printed in Japan

<http://www.sony.net/>



RDR-GXD500
2-188-393-11(1)