

TECHWOOD

DVDR R-520 BLACK 80GB

DVD Recorder

USER MANUAL

TABLE OF CONTENT

ABOUT THIS MANUAL.....	2
SAFETY INFORMATION.....	3
WARNING.....	3
GENERAL PROPERTIES.....	4
NOTES ON CD-R/RW, DVD-R/RW AND DVD+R/RW DISCS.....	5
SAFETY PRECAUTIONS.....	6
SAFETY PRECAUTIONS.....	7
NOTES ON DISCS.....	8
CONNECTION.....	9
Antenna Connection.....	9
Video & Audio Output Sockets.....	9
Analog Audio Connection.....	10
Digital Audio Connection.....	10
Scart Connection.....	11
Connect Camcorder to the Front Sockets of DVD Recorder.....	11
SUPPORTED DISCS.....	12
1.1 THE REMOTE CONTROL.....	13
1.1.1 Preparing the Remote Control for Operation.....	15
1.2 FRONT PANEL FUNCTIONS.....	16
1.3 FRONT PANEL CONNECTIONS.....	16
1.4 REAR PANEL CONNECTIONS.....	17
1.5 VFD ICONS.....	18
1.6 MESSAGES IN THE DVD RECORDER DISPLAY.....	18
2. INSTALLING YOUR DVD RECORDER.....	19
INTRODUCTION.....	19
2.1 INSTALLATION MENU.....	19
2.1.1 Initial Setup.....	19
2.2 FUNCTIONS MENU.....	20
INTRODUCTION.....	20
2.3 SETUP MENU.....	20
2.3.1 RECORDING.....	20
2.3.1.1 Auto Chapter Marker.....	20
2.3.1.2 Record Quality.....	20
2.3.1.3 APS.....	20
2.3.1.5 Program Table.....	21
2.3.1.6 Timer Setting Menu.....	21
2.3.1.7 Country Selection.....	21
2.3.2 VIDEO.....	22
2.3.2.1 TV Type.....	22
2.3.2.2 TV Display.....	22
2.3.2.3 Video Output Format.....	22
2.3.3 AUDIO.....	22
2.3.3.1 Downmix.....	22
2.3.3.2 SPDIF Output.....	23
2.3.3.3 LPCM Output.....	23
2.3.3.4 Dynamic Range.....	23
2.3.4 LANGUAGE.....	23
2.3.4.1 OSD Language.....	23
2.3.4.2 Audio Language.....	23
2.3.4.3 Subtitle Language.....	23
2.3.4.4 Disc Menu Language.....	23
2.3.5 DATE / TIME.....	23
2.3.5.1 Date-Time Setting.....	23
2.3.5.2 Program.....	23
2.3.5.3 Date (dd / mm/ yyyy).....	23
2.3.5.4 Time (hh : mm).....	24
2.3.6 PREFERENCES.....	24
2.3.6.1 Edit Disc.....	24
2.3.6.2 Parental Level.....	24
2.3.6.3 Factory Defaults.....	25
2.3.6.4 Power Saving.....	25
2.3.6.5 AV-2.....	25
2.3.6.6 DIVX (R) VOD.....	25
2.3.7 HDD.....	25
2.3.7.1 Time Shift Buffer Mode.....	25
2.3.7.2 Harddisk Info.....	25
2.3.7.3 Erase Harddisk.....	26
3. RECORDING.....	26
3.1 RECORDING SETUP.....	26
3.1.1 Record Quality.....	26
3.1.2 Source Selection.....	26
3.1.3 OTR (One Touch Recording).....	26
3.1.4 How To Watch Another Channel At TV During Recording?.....	26
3.2 RECORDING TO DVD.....	27
3.2.1 General Information.....	27
3.2.2 Recording.....	27
3.2.3 Inserting chapter.....	27

3.2.4 Disc Edit Menu.....	28
3.2.5 Title Edit Menu.....	29
3.2.6 Editing Title.....	29
3.3 RECORDING TO HARDDISK.....	29
3.3.1 Time Shifting.....	29
3.3.2 Save Operation.....	30
3.3.3 Manual Record.....	30
3.3.4 Harddisk Title List.....	31
3.3.5 Title List Sorting.....	31
3.3.6 Harddisk Title Edit Menu.....	31
3.4 DUBBING.....	32
3.5 TIMER RECORDING.....	32
3.5.1 General Information.....	32
3.5.2 How To Create Recording Item?.....	32
3.5.3 How To Check, Change or Delete A Programmed Recording (Timer)?.....	33
4. PLAYBACK.....	33
4.1 DISC PLAYBACK.....	33
4.1.1 Preparing For Playback (All Discs).....	33
4.1.2 Inserting a Disc In The Tray.....	33
4.1.3 Basic Playback (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG, DivX).....	33
4.1.4 Stopping Playback (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG, DivX).....	34
4.1.5 Pausing Playback (ALL DISCS).....	34
4.1.6 Removing a Disc (ALL DISCS).....	34
4.1.7 Repeat Play.....	34
4.1.8 Repeating a Specific Segment A to B (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG).....	34
4.1.9 Displaying a Scene With a Larger and Closer View.....	35
4.1.10 Selecting Subtitle Language (DVD, DivX) (Displaying / Changing Subtitle Language).....	35
4.1.11 Changing Audio Soundtrack Language (DVD, DivX , MPEG).....	35
4.1.12 Changing the Camera Angle (DVD).....	35
4.1.13 Fast Forward / Backward.....	36
4.1.14 Slow Forward Playback (DVD, (S)VCD).....	36
4.1.15 Skipping Ahead or Back (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG, DivX).....	36
4.1.15.1 Skipping Ahead.....	36
4.1.15.2 Skipping Back.....	36
4.1.16 Step Forward (DVD).....	37
4.1.17 Locating A Specific Title or Chapter, Using The MENU or TITLE Button (DVD).....	37
4.1.18 Browsing For A Specific Chapter/Title (DVD).....	37
4.1.19 Moving To A Specific Elapsed Time (DVD, (S)VCD).....	37
4.1.20 Browsing For A Specific Track/Time (CD-DA, MP3/WMA, MPEG, JPEG).....	38
4.1.21 Checking Elapsed/Remaining Time (except JPEG).....	38
4.1.22 Playback Control ((S)VCD).....	38
4.1.23 Playback Modes (CD-DA, MP3/WMA, JPEG, MPEG).....	38
4.1.24 Simultaneous Playback (JPEG, MP3/WMA).....	38
4.1.25 DISPLAY MENUS.....	39
4.2 HARDDISK PLAYBACK.....	39
5. LIMITATIONS AND SOME OTHER FEATURES.....	40
5. 1 Recorder Features And Limitations.....	40
6. SPECIFICATIONS.....	41
SUPPORTED DivX AUDIO & VIDEO FORMATS.....	42
TROUBLESHOOTING GUIDE.....	43

ABOUT THIS MANUAL

Instructions on this manual describe the controls of the DVD Recorder. You can also use the remote controller controls with the same name as those on the unit.

Dear Customers

We would like to thank you for purchasing this DVD+R/RW and DVD-R/RW Recorder.

We strongly recommend that you carefully study the operating instructions before attempting to operate the unit and that you NOTE the listed safety precautions.

SAFETY INFORMATION

CAUTION

**CLASS 1
LASER PRODUCT**

LASER CLASS 1	
Wave Length	: 650 nm \pm 15nm (DVD) 790 nm \pm 15nm (CD)
Maximum output of accessible laser radiation	: < 0,39 mW (continuous wave)
Classified according to IEC 60825-1	: 1993 + A1 : 1997



This unit is a class 1 laser product. However this product uses a visible laser beam which could cause hazardous radiation exposure.

Be sure to operate the recorder correctly as instructed.

While this recorder is plugged to the wall outlet, do not place your eyes close to the opening of the disc tray or other openings to look inside the recorder for your own safety.

Use of performance control or adjustment procedures other than those specified may result in hazardous radiation exposure. Do not open the covers and do not attempt to repair any damaged parts. Please refer to a service technician or qualified personnel for any necessary repairs.

WARNING

To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.

To reduce the risk of fire or electric shock, and any interference, use the recommended accessories only.

Do not move your device for 20 seconds after removing DC power to ensure that the actuator is completely locked. This helps prevent the media and the heads from accidental damage due to vibration, moving or shipping.

The device shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

The mains plug or the appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

	WARNING	
	RISK OF ELECTRIC SHOCK	
	<i>The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock of persons.</i>	
	<i>The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.</i>	

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

"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."

GENERAL PROPERTIES

- 1) DVD+R/RW, DVD Video, DVD-R/RW, Audio CD, (S)VCD, CD-R/RW, MP3/WMA, JPEG, DivX playback, DVD+R/RW and DVD-R/RW Dual Media recording.
- 2) 60 minutes long time shifting
- 3) 80 GB harddisk
- 4) Vacuum Fluorescent Display (VFD)
- 5) User-friendly OSD menu control
- 6) Recording onto harddisk and playback from harddisk (another title) simultaneously
- 7) Recording onto harddisk and playback an optical disc simultaneously
- 8) Title copying from HDD onto DVD (Dubbing)
- 9) Dubbing to DVD and Time shifting simultaneously
- 10) NTSC/PAL playback (according to disc content) and recording
- 11) Recording in different qualities (HQ, SP, LP, EP, SLP)
- 12) One Touch Recording
- 13) Auto title menu with thumbnail index pictures
- 14) Finalize for DVD+R and DVD-R/ DVD-RW disc
- 15) Adding chapter markers, appending, overwriting, deleting titles (For DVD)
- 16) Hide/unhide chapters (For DVD)
- 17) Rename, delete, split, segment, lock and protect titles on harddisk
- 18) Recording with timer
- 19) Dolby Digital, LPCM audio via coaxial & optical digital audio outputs
- 20) Multiple Aspect Ratio support (16:9 Widescreen, 4:3 Letterbox, 4:3 PAN&SCAN)
- 21) Multi-Audio (up to 8) support (According to disc content) (For DVD)
- 22) Multi-Subtitle (up to 32) support (According to disc content) (For DVD)
- 23) Multi-Angle (up to 9) support (According to disc content) (For DVD)
- 24) 8 level parental control
- 25) Fast forward and rewind in 5 different speeds (2x, 4x, 8x, 16x, 32x Fast Forward/Backward)
- 26) For DVD; frame by frame forward playback
- 27) For DVD / (S)VCD; slow forward playback (1/2x, 1/4 x, 1/8x Slow Forward)
- 28) Maximum 5K*5K resolution for baseline, 1280*1024 resolution for progressive JPEG playback
- 29) 32-320 kbit bit rate for MP3/WMA playback
- 30) Repeat modes (Disc, Chapter, Title, Track, Folder)
- 31) A → B repeat
- 32) Program function for Audio CD, MP3/WMA, JPEG and MPEG
- 33) Simultaneous playback of audio and pictures
- 34) External subtitle support for "smi", "srt", "sub", "txt" extensions with European special character support in DivX playback.
- 35) DivX 3.x, 4.x and 5.x support
- 36) Pause recording
- 37) Low power standby mode support
- 38) Antenna input / output (loop through)
- 39) 2 SCART socket
- 40) Composite Video input/output
- 41) S-Video input
- 42) Coaxial and Optical Digital Audio outputs

NOTES ON CD-R/RW, DVD-R/RW AND DVD+R/RW DISCS

- CD-R, DVD-R, DVD+R (Recordable) and CD-RW, DVD-RW, DVD+RW (Rewritable) discs, recorded by the users, may only be used after finalization process.
- CD-R/RW, DVD-R/RW and DVD+R/RW discs may not be usable, depending on the disc features, recording conditions and damage or dirt on disc. The disc configuration and features are determined by the tool and device used for recording. Therefore, users may face with the following undesired consequences:
 - § Some discs may not be read at all
 - § Some discs may cause system crash after laying for a while
 - § Some parts of the disc may be skipped or worked abnormally
- Compare with the original discs, the time passed for reading a CD-R/RW, DVD-R/RW and DVD+R/RW discs may be longer.
- This DVD player may not support some MP3/WMA recordings due to differences in recording formats or disc type.
- Please read the user's manual MP3/WMA playback.
- CD-R/CD-RW discs recorded by CD-DA method can be played. Some CD-R/CD-RW disc may be incompatible due to laser pick-up and disc design.
- DVD-R discs recorded by DVD-Video method can be played. Some DVD-R discs may be incompatible due to laser pick-up and disc design.
- Some discs may be incompatible with JPEG Viewer function due to different recording format or condition of the disc.

SAFETY PRECAUTIONS

Power Source

The unit should be operated only from a 220-240V~ 50 Hz outlet. Please do not open the cover by yourself. There is high voltage in the set, which will endanger your life. Please contact local service agent for help and advice. Repairs to be carried out by a qualified technician only.

- The apparatus is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the apparatus itself has been turned off.
- If you are not going to use the apparatus for a long time, be sure to disconnect the apparatus from the wall outlet.

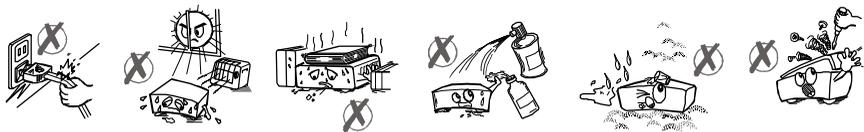
IMPORTANT NOTE: The voltage markings and other safety markings are found on the under or rear side of the appliance.

Power Cord

Do not place the unit, a piece of furniture, etc., on the power cord (mains lead), or pinch the cord. Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Never make a knot in the cord or tie it with other cords. The power cords should be routed in such a way that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask closest service agent for help. When the AC power cord need to be changed, it should be done at a qualified service shop only.

Choice of Location

- Please do not place the set in a place subject to direct sun light, excessive dust or mechanical shock or in a location near heat sources.
- The set should be placed on a solid and safe base. Do not place the apparatus on a soft surface such as a rug that might block the ventilation holes on the bottom.
- A location should not be selected such as a room with high humidity, as the condensation, arising in the kitchen for example, may cause malfunction or damage the set.
- Heating or other thermal radiation under the set also may cause malfunction or damage the set.
- The hot air, which arises during the operation, should be ventilated with sufficient air circulation. Please do not put the set into closed areas and do not cover it.
- Please avoid the contact of the set with water or humidity. Do not put into operation near bath, swimming pools.
- Take care to provide a good air circulation. Place the apparatus in a location with adequate ventilation to prevent heat build-up in the apparatus.
- Should any solid object or liquid fall into the cabinet, unplug the apparatus and have it checked by qualified personnel before operating it any further.



SAFETY PRECAUTIONS

PROPER VENTILATION

CAUTION

- Do not block the ventilation openings or holes.

(If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)

- Do not place any naked flame sources, such as lighted candles, on the apparatus.
- When discarding batteries, environmental problems must be considered and local rules or laws governing the disposal of these batteries must be followed strictly.
- Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Use this apparatus in moderate climates.

Caution:

To avoid risk of electric shock and fire and to protect from damage.

Locate the apparatus as follows:

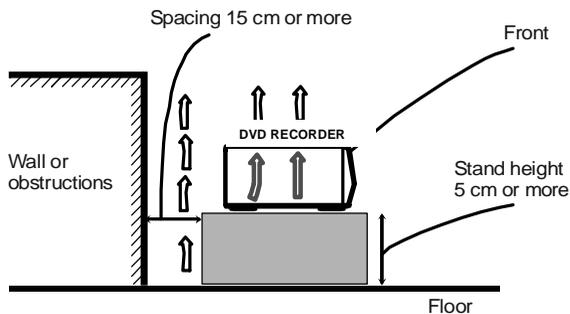
Front: No obstructions and open spacing.

Sides: No obstructions in 3 cm from the sides.

Top: No obstructions in 5 cm from the top.

Back: No obstructions in 15 cm from the back

Bottom: **No obstructions, place on the level surface.**



NOTES ON DISCS

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 can rise quickly and damage the disc.

On handling discs:

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc.
- If the disc is contaminated with any substance, like glue remove before using it.



On cleaning:

- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the inside to the outside.



- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.

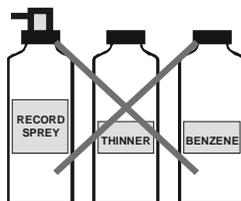
Discs that should not be used:

Only the discs including the marks (see 1.7) can be played.

Note, however, that discs with special shapes (heart-shaped discs, hexagonal discs, etc.) cannot be played. Do not attempt to play such discs, as they may damage the unit.

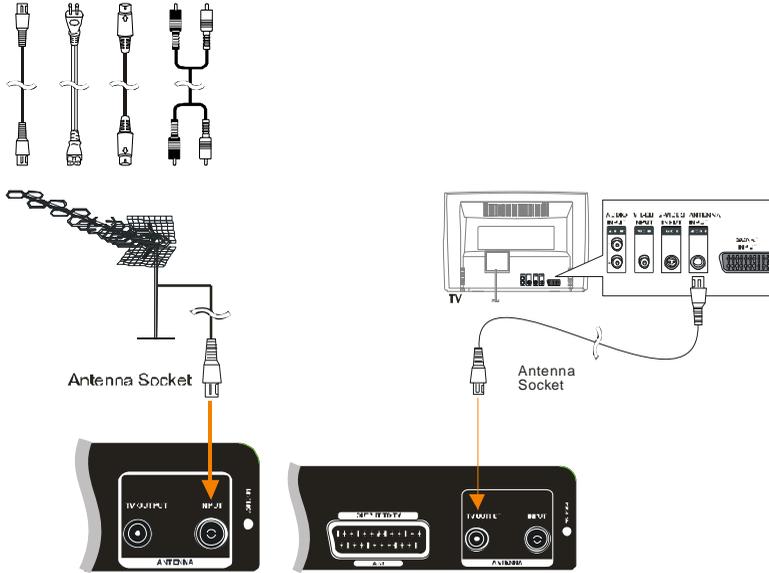


NOTE: Do not use record spray or antistatic. Also do not use volatile chemicals such as benzene or thinner.

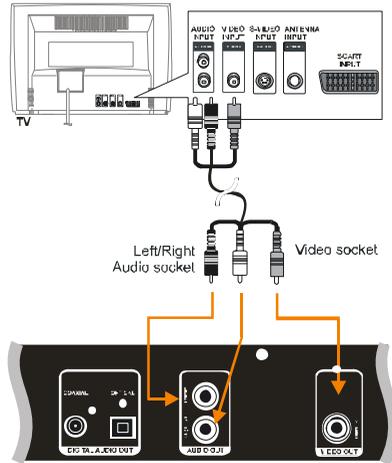


CONNECTION

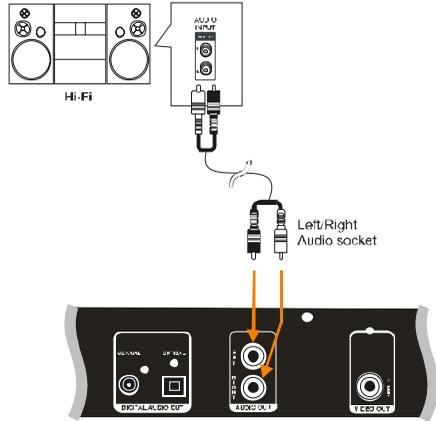
Antenna Connection



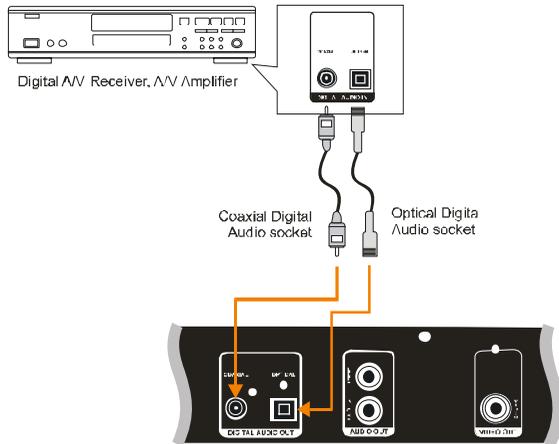
Video & Audio Output Sockets



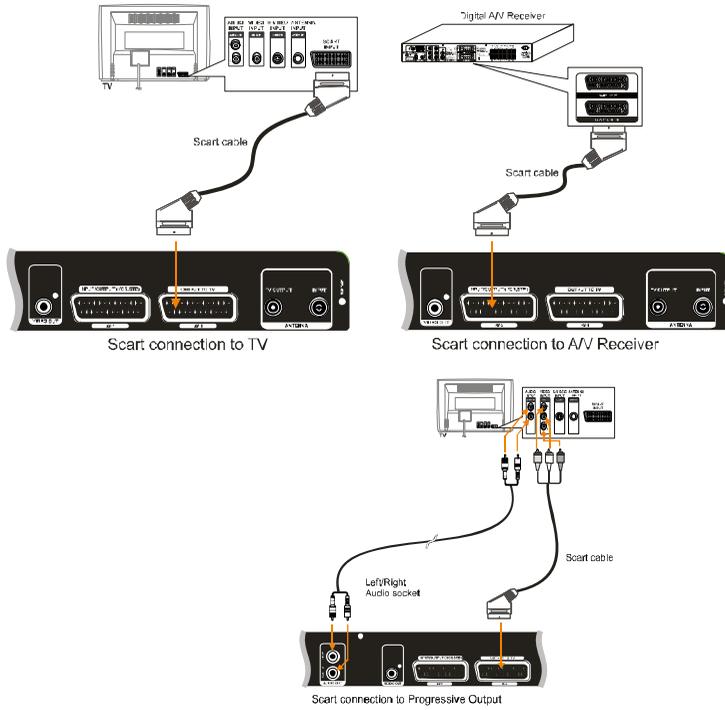
Analog Audio Connection



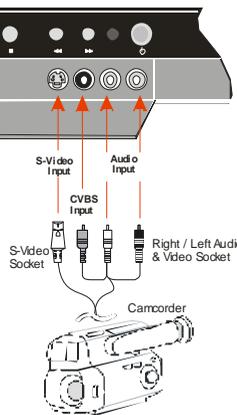
Digital Audio Connection



Scart Connection



Connect Camcorder to the Front Sockets of DVD Recorder



SUPPORTED DISCS

Playback and Recording

DVD+RW (Digital Versatile Disc+ Rewritable)

DVD+R (Digital Versatile Disc+ Recordable)

DVD-RW (Digital Versatile Disc- Rewritable)

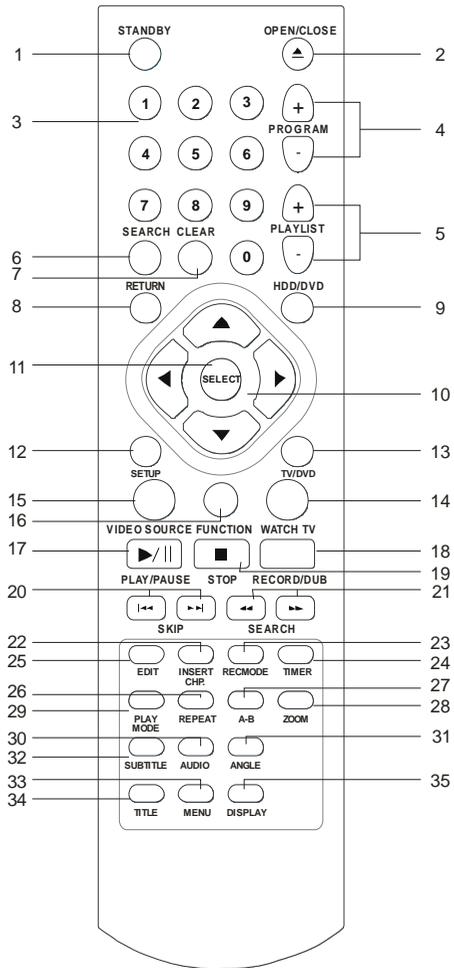
DVD-R (Digital Versatile Disc- Recordable)

Playback only

Disc Types (Logos)	Recording Types	Disc Size	Max. Playing Time	Characteristics
DVD 	Audio + Video	12 cm	Single - sided; 240 min. Double - sided; 480 min.	<ul style="list-style-type: none"> • DVD contains excellent sound and video due to Dolby Digital and MPEG-2 System. • Various screen and audio functions can be easily selected through the on-screen menu.
		8 cm	Single - sided; 80 min. Double - sided; 160 min.	
VIDEO-CD 	Audio + Video	12 cm	74 min.	<ul style="list-style-type: none"> • Video with CD sound, VHS quality and MPEG-1 compression technology.
		8 cm	20 min.	
AUDIO-CD 	Audio	12 cm	74 min.	<ul style="list-style-type: none"> • An LP is recorded as an analogue signal with more distortion. CD is recorded as a digital signal with better audio quality, less distortion and less deterioration of audio quality over time.
		8 cm	20 min.	
MP3-CD	Audio (xxxx.mp3)	12 cm	It depends on MP3 quality.	<ul style="list-style-type: none"> • MP3 is recorded as a digital signal with better audio quality, less distortion and less deterioration of audio quality over time.
		8 cm		
PICTURE-CD	Video (still picture)	12 cm	It depends on JPEG quality.	<ul style="list-style-type: none"> • JPEG is recorded as a digital signal with better picture quality over time.
		8 cm		
DivX® 	Audio + Video	12 cm	It depends on DivX® quality.	<ul style="list-style-type: none"> • DivX™ media files contain highly compressed video with high visual quality that maintains a relatively small file size.
		8 cm		

1.INTRODUCTION

1.1 THE REMOTE CONTROL

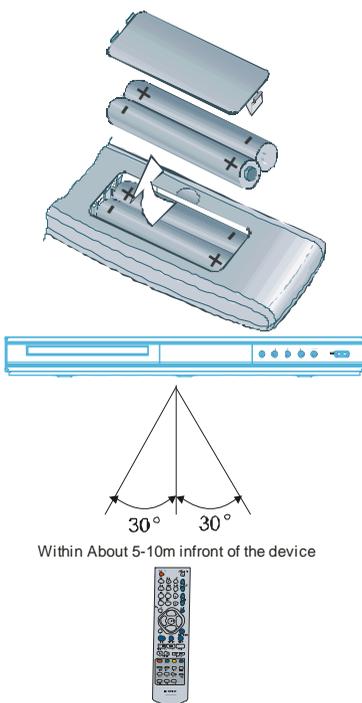


- 1. STANDBY** : To switch the set ON or OFF.
- 2. OPEN/CLOSE** : To Open/close the disc tray.
- 3. 0-9** : Number keys: 0- 9.
- 4. PROGRAM+** : Tunes to next program while watching TV.
- 4. PROGRAM-** : Tunes to previous program while watching TV.
- 5. PLAYLIST +/-** : Adds files to make playlist in PROGRAM play mode and removes added files from playlist.
- 6. SEARCH** : Press to move to any desired title/chapter/track/time within the disc.
- 7. CLEAR** : Erases the number you previously entered. Also removes timer event from timer list.
- 8. RETURN** : Return to previous menu on a video CD. Also for CD Menu and Setup menu,
- 9. HDD/DVD** : Switch between harddisk title list window and play disc.
- 10. ARROW KEYS (3/4/5/6)** : To navigate inside menus.
- 11. SELECT** : Select function/value.
- 12. SETUP** : It opens and closes the system-menu.
- 13. TV/DVD** : Enables/disables the SCART socket output to the TV set. This lets you watch another program via TV set while DVD recorder is recording another program or source without unplugging the SCART cable.
- 14. WATCH TV** : To switch to monitor mode.
- 15. VIDEO SOURCE** : Switches the video source in the order of TV Tuner, SCART Input, Front CVBS, S-Video.
- 16. FUNCTION** : Opens Functions menu.
- 17. PLAY/PAUSE(▶/⏸):** : Playback a disc. If this key is pressed during playback or recording, operation is paused. Also use this key to switch to disc playback from the beginning in monitor mode. For any DVD title that has a root menu with still picture, this key functions as "button select" (selects highlighted item) in the root menu. Otherwise this functioning of
 will appear.
"play/pause" key on the root menu will be prohibited by the disc, and  will appear.
- 18. RECORD/DUB** : Records the selected video source or start dubbing and resumes paused recording. Activates One-Touch-Recording while recording is in progress.
- 19. STOP (■)** : Stop playback/recording.
- 20. SKIP (⏮)** : Press this key during playback: Previous chapter/ film or previous file.
- 20. SKIP (:)** : Press this key during playback: Next chapter/ film or next file. Press this key during pause mode: Shows next frame at each press. (only for DVD)
it returns to the upper folder.
- 21. SEARCH(▶▶)(◀◀)** : Fast forward and fast backward in x2, x4, x8, x16 and x32. Slow forward in Pause state.
- 22. INSERT CHAPTER** : Inserts a chapter manually to recording media during recording or playback of recorded content at Edit mode.
- 23. REC MODE** : Select quality and duration of recording.
- 24. TIMER** : To program a recording or to alter/clear pre-programmed recordings.
- 25. EDIT** : If there is a pre-recorded disc inside (but not a finalized DVD+R), pressing this key will switch system to title editing mode. While in edit mode, if you press this key again, it will close editing mode and return back to the Root Menu.
- 26. REPEAT** : To play titles, chapters and tracks repeatedly.
- 27. A-B** : Repeat a selection from point A to point B.
- 28. ZOOM** : Enlarge the image
- 29. PLAY MODE** : For MP3/WMA, CD-DA, JPEG and MPEG tracks switches between play modes.
- 30. AUDIO** : If DVD supports, switches between audio formats during DVD playback.
- 31. ANGLE** : Selects the angle to view the scene. This only works when multiple angles are provided for a scene.
- 32. SUBTITLE** : If DVD supports, changes the subtitle language, turns it on or off. (also at DivX).
- 33. MENU** : Displays the DVD or (S)VCD menu.
- 34. TITLE** : If DVD supports, to choose the title menu in DVD discs.
- 35. DISPLAY** : Opens Display menus.

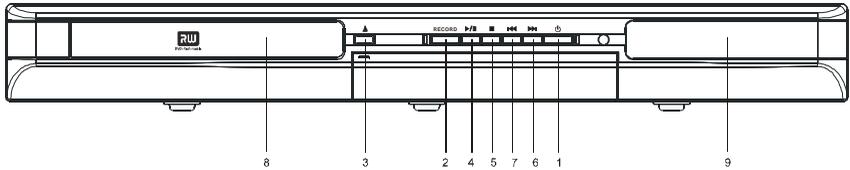
1.1.1 Preparing the Remote Control for Operation

The remote control and its batteries are packed separately in the original DVD recorder packaging. You must install the batteries in the remote control before use.

- Ø Take the remote control of the DVD recorder and the enclosed batteries (2 x 1.5 V batteries) (R03/AAA)
- Ø Open the battery compartment, insert the batteries as shown and then close the compartment.
- Ø The remote control range is approximately 5 to 10 meters.

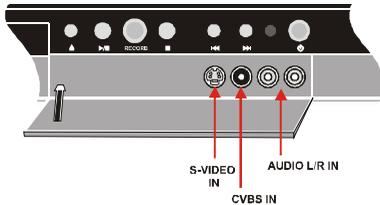


1.2 FRONT PANEL FUNCTIONS



1. **STANDBY** : Switches the set ON or OFF.
2. **RECORD** : Records the selected video source or start dubbing, and resumes paused recording. Activates One-Touch-Recording while recording is in progress.
3. **OPEN/CLOSE**  : Opens/closes the disc tray.
4. **PLAY/PAUSE**  : Playback a disc. If this key is pressed during playback or recording, operation is paused. For any DVD title that has a root menu with still picture, this key functions as "button select" (selects highlighted item) in the root menu. Otherwise this functioning of "play/pause" key on the root menu will be prohibited by the disc, and  will appear.
5. **STOP**  : Stops playback/recording.
6. **SKIP FORWARD**  : Plays next chapter/ title/ track/ file.
7. **SKIP BACKWARD**  : Plays previous chapter/ title/ track/ file.
8. **DISC TRAY** : Place a disc on the tray.
9. **FRONT PANEL DISPLAY (VFD)**: Indicates the playing time, title, chapter/track etc.

1.3 FRONT PANEL CONNECTIONS



S-VIDEO in : S-Video socket: Connection of S- Video source.

CVBS in : Video input socket: Connection of composite video source (camcorders, video recorders, set top box).

AUDIO L/R in : Left/Right audio input socket: L/R Audio inputs are used for both S-Video and CVBS.

1.4 REAR PANEL CONNECTIONS



ANTENNA INPUT

Aerial input

Connection of the aerial antenna.

ANTENNA TV OUTPUT

Connection of the TV set.

OUTPUT TO TV

SCART Socket 1(AV1)

Connects to the scart-input connector on the TV. RGB output.

INPUT/OUTPUT (VCR, STB)

SCART Socket 2(AV2)

Connection of an external device (satellite receiver, set-top box, video recorder, camcorder, etc.)

CVBS

Video output

Connection of a TV set with a video output (CVBS, Composite Video).

AUDIO connectors (Audio OUT)

2 channel recorders:

Connects to the AV amplifier by using 2 RCA cords (left/right).

DIGITAL AUDIO OUT (OPTICAL)

Connects to an audio component using the optical digital connection cord.

DIGITAL AUDIO OUT (COAXIAL)

Connects to an audio component using the coaxial digital connection cord.

1.5 VFD ICONS



TITLE	: Displays the selected/played title number (DVD)
TRK	: Displays the selected/played track number (CDDA/MP3/WMA/JPEG/MPEG)
DVD	: Displays the type of inserted DVD disc: DVD
DVD R	: Displays the type of inserted DVD disc: DVD+R/DVD-R
DVD RW	: Displays the type of inserted DVD disc: DVD+RW/DVD-RW
(S)VCD	: Indicates that an (S)VCD disc is inserted
CD	: Indicates that a CD disc is inserted
CHP	: Displays the selected/played number of chapter (DVD)
REMAIN	: Indicates that remaining time is being displayed
	: A Dolby Digital audio signal is available on the digital audio output
DTS	: DTS audio signal is available on the digital audio output
PCM	: A PCM audio signal is available on the digital audio output
	: Playback in progress
:	: Playback/record interrupted (Pause)
REC	: Recording in progress
TIMER	: A recording (timer) has been programmed
NICAM	: The DVD recorder has detected a Nicam audio signal
2 CH	: During playback, a HiFi/2 channel tone was detected or a HiFi/2 channel tone was received.
5.1 CH	: During playback, a HiFi/6 channel tone was detected or a HiFi/6 channel tone was received.
ZOOM	: Zoom mode is activated
	: A repeat mode is activated
A → B	: A → B repeat mode is activated
	: Displays multi-angle scenes.
HDD	: Indicates that HDD title list is active or playback / recording from HDD is in progress.

Multi-function display/Text line

- Clock
- Disc/Title playing time
- Display of a programme number of TV channel/ position/ channel name/ function
- Display of information, warnings

1.6 MESSAGES IN THE DVD RECORDER DISPLAY

The following messages may appear in your DVD recorder display:

OPEN	: Disc tray is open
CLOSE	: Disc tray is closing
LOAD	: Disc is being read
NO DISC	: No disc has been inserted for playback or recording. If a disc has been inserted, perhaps it cannot be read.
ERROR	: Error disc, faulty disc
UPDATE	: Updating flash
BLANK	: Inserted disc is blank
MENU	: While in file playback, file content menu is on screen
STOP	: Stop to play the content
ROOT	: In root menu for recorded content
COMPOSITE	: CVBS source
S-VIDEO	: S-VIDEO source
SCART-IN	: SCART source
PREPARING	: Preparing a new DVD+R/DVD-R or DVD+RW/DVD-RW disc
SETUP	: Setup menu is active on screen
FINALIZE	: Finalizing a DVD+R or DVD-R disc
FINISH	: Flash update procedure is finished
DUBBING	: Dubbing is in progress

2. INSTALLING YOUR DVD RECORDER

INTRODUCTION

Setup encompasses setting general options such as language, clock and so on that are applicable to DVD Playing and recording functions. Other setup options apply to specific functions of the DVD recorder.

2.1 INSTALLATION MENU

2.1.1 Initial Setup

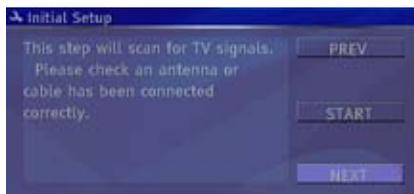
1. OSD language selection.



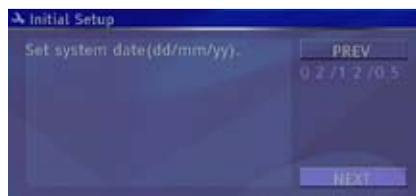
2. Country selection.



3. Automatic program search.



4. Use 5/6 keys to select the date box, and press SELECT to edit date. You can come to the place that you will change by using 3/4 keys and make the changes by using number keys and 5/6 keys.



5. You can also set system time with the same steps as written above.



6. Finish the initial setup.



2.2 FUNCTIONS MENU

INTRODUCTION

This menu is used as a shortcut menu for switching to DVD playback, timeshift monitor mode, setup menu, timer recording menu, harddisk playback. You can navigate on those items and press SELECT on one of them to switch to. If you wait for more than 5 seconds this menu will be closed.

DVD - Switch to DVD playback window.

TV/Video - Switch to time shift monitor mode.

Setup – Switch to setup menu.

Timer Recording – Switch to timer recording menu.

HDD – Switch to harddisk title window.



2.3 SETUP MENU

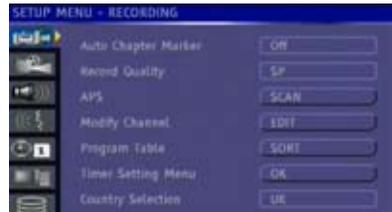
If you press **SETUP** key on the remote control or select Setup from Functions menu, a menu will be displayed. You can use arrow keys for navigation and **SELECT** key to change highlighted option.

NOTE: Some Setup Menu items may not be available during playback or monitor mode.

2.3.1 RECORDING

2.3.1.1 Auto Chapter Marker

You can select one of the time periods (5min, 10min, 20min, 30min) for automatic chapter insertion or cancel this function by choosing "Off" option.



2.3.1.2 Record Quality

You can choose the quality level for custom recording. Each quality level offers different recording time period, listed below:

- HQ : High Quality-60 min
- SP : Standard Play- 120 min
- LP : Long Play- 180 min
- EP : Extended Play- 240 min
- SLP : Super Long Play- 360 min.



If you change Record Quality at Time Shift mode, buffer will be refreshed. Therefore, a confirmation message is displayed before changing quality.

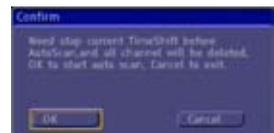
NOTE: This menu item will be active only in monitor mode.

2.3.1.3 APS

Makes automatic scan of all channels preset at the antenna. Initially, it deletes current channel list. To confirm this, a warning message appears on the screen. If you choose to continue, it starts scanning channels

NOTE: APS operation may take long time.

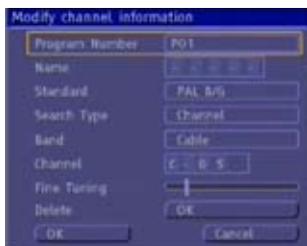
NOTE: If you do not get audio properly, please see Troubleshooting part.



2.3.1.4 Modify Channel

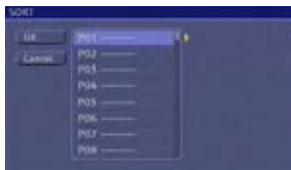
It enables to modify last tuned channel settings. You can select "Search Type" and "Band" or edit the "Name" field. The "Standard" item will be refreshed according to the tuned channel's setting. With "Channel" / "Frequency" field, you can directly enter the channel number / frequency or press arrow keys to do manual tuning.

When you select "Standard" option from "Band" field, it starts scanning with C-Band and it does not pass to S-Band after tuning C-Band. If you select "Cable" option, it starts scanning with S-Band and it scans both S-Band and C-Band channels.



NOTE: Time shifting will be stopped if you do channel editing operations. Before entering to this menu, a warning message will be shown that explains this situation.

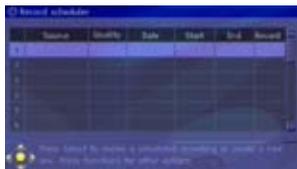
2.3.1.5 Program Table



You can view or sort all stored programs by using this menu item.

You can access Modify Channel menu (see 2.3.1.4) by pressing Select button on Program Table.

2.3.1.6 Timer Setting Menu



You can list all pre-set timer records, edit on stored record list or set the timer for a new recording by using this menu option. This menu can also be activated by **TIMER** key on the remote control.

If you press **SELECT** on the first blank item an additional menu will appear on screen. For detailed information, please look at section 3.5.

2.3.1.7 Country Selection

It lists available countries and enables to select the country for proper sorting of channels found during APS.

NOTE: In order to have proper tuning, channel naming and sorting facilities, please be sure that your own country is selected.

2.3.2 VIDEO



2.3.2.1 TV Type

MULTI: Select this option if your TV supports both NTSC and PAL.

PAL: Select this option if your TV supports only PAL.

NTSC: Select this option if your TV supports only NTSC.

2.3.2.2 TV Display

TV Display controls the presentation of the picture on the screen.



4:3 PS



4:3 LB



16:9 WS

4:3 PS: (Normal/PS Pan & Scan)

Allows the movie to fill the entire screen of your TV, but not the right and left edges.

4:3 LB: (Normal/LB Letterbox 4x3)

Allows you to see movies in their original aspect ratio. You will see the entire frame of the movie, but it will occupy a smaller portion of the screen.

16:9 WS: (Wide Widescreen 16x9)

Choose this setting if your DVD recorder is connected to a widescreen TV.

NOTE: Depending on the format of the DVD disc, e.g. 2.35:1 the picture may still have black lines above and below the picture.

2.3.2.3 Video Output Format

This menu item enables user to select video output as either "Progressive" or "Interlaced".

When progressive option is selected, a confirmation message will be displayed. If user does not press any key to confirm, selection will be discarded after a while.

NOTE: You can only get progressive output with progressive TV set, otherwise you will not get video properly.

If your selection and the TV set do not match please use the shortcuts below in monitor mode:

CLEAR, CLEAR, 5: Switch to progressive

CLEAR, CLEAR, 6: Switch to interlaced

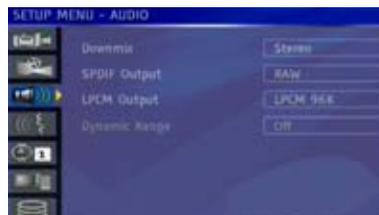
2.3.3 AUDIO

2.3.3.1 Downmix

Downmix means mixing 5.1 channels down to two channels. Set these options to agree with the speakers installed in your home entertainment system.

Stereo: Two channels stereo. Use this option if you have a stereo TV or a HI-FI stereo system.

Surround: Surround encoded output.



2.3.3.2 SPDIF Output

This item can be selected as “RAW” or “LPCM”.

2.3.3.3 LPCM Output

This item can be selected as “LPCM 96K” or “LPCM 48K”.

Choose “LPCM 96K” if your AV amplifier/receiver is compatible with 96K sampling rate audio, otherwise leave it set to “LPCM 48K”.

2.3.3.4 Dynamic Range

Dynamic range adjusts frequency response. This control is useful to turn down the level of loud passages (explosions, car crashes, and etc.), while at the same time keeping soft passages loud enough to hear them clearly. This option is active only when downmix is selected as “Surround”.

Full: The range between loudest and softest is compressed to the maximum.

Off: There is no compression. You can adjust the level of the dynamic range compression to different levels between off and full. The other settings are expressed as a fraction of the full dynamic range.

2.3.4 LANGUAGE

2.3.4.1 OSD Language

You can change default OSD language by this option.

2.3.4.2 Audio Language

You can select default audio language by this option. The selected audio language will be activated, if supported by the disc played.

2.3.4.3 Subtitle Language

You can select default subtitle language for DVD discs by this option. The selected subtitle language will be activated, if supported by the disc played.

2.3.4.4 Disc Menu Language

You can select default DVD disc menu language by this option. The selected DVD disc menu language will be activated, if supported by the disc played.



2.3.5 DATE / TIME

2.3.5.1 Date-Time Setting

You can edit date & time settings if “Manual” option is selected. Otherwise the date and time settings are set automatically according to the selected “Program”.

NOTE : Date/ Time info may not be updated automatically from channels whose name info can not be received from broadcast.

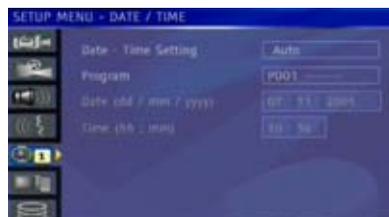
2.3.5.2 Program

This option is used for selecting the program for automatic date/time setting. You can select one of the programs that are listed for auto date/time setting.

NOTE: Date and time will be automatically updated once you tune to the channel selected in Program option. If you are already tuned to that channel at the background, please switch to another channel and then tune back to this channel.

2.3.5.3 Date (dd / mm / yyyy)

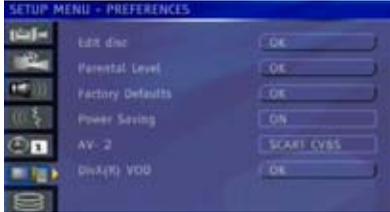
You can set date by this menu option, if the “Date – Time Setting” option is selected as “Manual”. The date format will be as “day / month / year”.



2.3.5.4 Time (hh : mm)

You can set time by this menu option, if the "Date – Time Setting" option is selected as "Manual". The time format will be as "hour : minute".

2.3.6 PREFERENCES

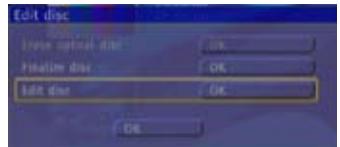


2.3.6.1 Edit Disc

ERASE OPTICAL DISC

This menu option is used for erasing a recorded DVD+RW/DVD-RW disc. A warning dialogue asking whether you want to erase or not will be displayed. Select Yes to start erasing disc, or select No to return to the Setup menu.

NOTE: This option is enabled if only the disc is not in use. If you're playing the disc or viewing title menu (Root), please exit from DVD mode and select this menu option for erasing the disc.



FINALIZE DISC

This menu option is used for finalizing a recorded DVD+R/RW or DVD-R/RW disc. It is not possible to do any operation on the disc after this process. A warning dialogue asking whether you want to finalize or not will be displayed. Select Yes to start finalizing disc, or select No to return to the Setup menu.

EDIT DISC

This menu option is used for viewing Disc Edit Menu of DVD+R/RW/ DVD-R/RW discs.

You can perform disc edit operations such as play disc, rename disc or record a new title with this menu. For the details, please refer to Section 3.2.4.

2.3.6.2 Parental Level

Playing some DVDs can be limited depending on the age of users. The "Parental Control" function allows playback limitation level to be set by the parent.

Ø PARENTAL LEVEL

Parental level can be adjusted to one of the eight levels or "NO PARENTAL". "NO PARENTAL" or level "8 ADULT" adjustments let you watch all of the DVD titles ignoring that DVD disc's parental level. You can watch the DVD discs, which has the same or lower parental level than the recorder's level only.



NOTE: Parental Level menu option will not be available if the player is in RESUME (Pre-Stop) mode.

Ø CHANGE PASSWORD



The password for parental level can be set and changed by using this option.

The default password is: 0000.

You have to set a XXXX digital password when it is the first time to select a parental level.

You have to enter your password every time you want to watch a movie with a higher parental setting or to change the parental level of the system.

To change the password, you will be prompted to enter your old password. After that, it becomes possible to enter a new 4-digit password.

Enter password : Enter your current password (four numbers you previously set in here)

Enter new password: Enter your choice for a new password.

Confirm new password: confirm new password by entering again. Select "OK".

NOTE: Do not forget your password. Otherwise you can use the password at last page, to enter this menu.

2.3.6.3 Factory Defaults

When you choose Factory Defaults option, after resetting all your Setup options back to factory settings, the device will switch to standby mode automatically. When the standby button is pressed to switch the device on, first time installation starts.

CAUTION: Parental level and parental password do not change.

2.3.6.4 Power Saving

If Power Saving is selected as “On”, the unit goes into LOW POWER state instead of normal STANDBY state when you press STANDBY key on remote controller or front panel.

In LOW POWER state, the time is not displayed on VFD and only STANDBY key works on remote controller or front panel.

If Power Saving is selected as “Off”, the unit always goes into normal STANDBY state on each press of STANDBY key.

NOTE: At low power mode the ventilator does not work at stand by.

2.3.6.5 AV-2



This menu option allows you to set AV-2 as “Decoder”, “SCART CVBS” or “SCART RGB” output.

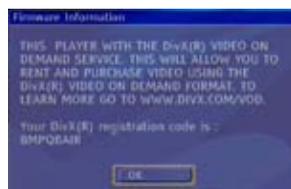
When “Decoder” option is selected, “SCART” is removed from the available video sources list and an additional menu item (“Decoder On/Off”) is added into “Modify Channel” menu.

In the “Modify Channel” menu, if you select Decoder option as “On”, you can watch scrambled channels with appropriate decoder.

Otherwise, when “SCART CVBS” or “SCART RGB” is selected, AV-2 continues to stay in available sources list.

2.3.6.6 DIVX (R) VOD

This menu option allows you to watch DivX DRM (Digital Rights Management) supported discs. When you select this option, you will be given a DivX registration code. According to the information on the screen you will be able to watch DivX DRM discs.



2.3.7 HDD

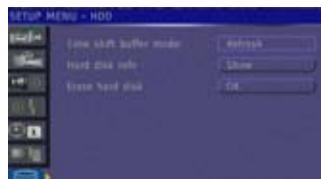
2.3.7.1 Time Shift Buffer Mode

This option is used for whether storing time shifting data or not. If time shifting buffer option is selected as “Refresh”, buffer information will be lost and time shifting will be started from beginning when you change the channel or video source.

If “Preserve” is selected, buffer information will be maintained during channel or source navigation.

2.3.7.2 Harddisk Info

When you press Show button on this menu, a new pop-up menu is appeared; title number, total hard disk size, used and remain space in hard disk information is shown as Mega Bytes.



2.3.7.3 Erase Harddisk

This option is used for erasing all titles on harddisk. A warning message asking whether you want to erase or not will be displayed. Select Yes to start erasing hard disk, or select No to return to the Setup menu. After erase operation, the device will switch to standby mode automatically.

NOTE: You have to proceed with caution because this operation is irreversible.

NOTE: After erasing harddisk the recorder will switch to low power mode by first pressing standby key, please press standby key again to open the recorder.

3. RECORDING

3.1 RECORDING SETUP

3.1.1 Record Quality

You can select from up to five record quality settings to define the picture quality of the recordings and the amount of space you want to use on the HDD. Higher quality recordings will consume more space and low quality recordings will consume less space on the HDD.

You can also change record qualities by pressing **RECORD MODE** key on the remote control in monitor mode without time shift.

Record Quality	Recording Time (4.7GB,DVD)	Recording Time (80 GB, HDD)
HQ (High Quality)	~ 1 Hour	~ 18 Hours
SP (Standard Play)	~ 2 Hours	~ 36 Hours
LP(Long Play)	~ 3 Hours	~ 50 Hours
EP (Extended Play)	~ 4 Hours	~ 70 Hours
SLP (Super Long Play)	~ 6 Hours	~ 104 Hours

NOTE: During time shifting, record quality changes can not be refreshed unless you switch between monitor mode with and without time shift.

3.1.2 Source Selection

Video input source modes: TV Tuner, SCART, Front CVBS, Front S-Video . Please checkout your setup first and assemble the correct configurations for starting record process. In order to navigate between video sources press **VIDEO SOURCE** key on the remote control.

If you press **VIDEO SOURCE** key on remote control in HDD mode or select TV/Video item from Functions menu, it will switch to time shift monitor mode. In this mode you can record only to hard disk.

3.1.3 OTR (One Touch Recording)

Every press of **RECORD/DUB** key will increase recording time for 30 minutes after recording has been started.

The timer list is circular. According to the record quality and the empty space available on the disc/harddisk; after reaching to the maximum recording time, it switches back to OTR cancelled mode.

3.1.4 How To Watch Another Channel At TV During Recording?

This feature is valid only for SCART connection to TV. Press **TV/DVD** key on remote control. This will disable the SCART output of the unit. By using your TV remote control, you can navigate through channels that are registered on your TV and watch those channels. In order to enable the SCART output of the DVD recorder, press **TV/DVD** key again.

3.2 RECORDING TO DVD

3.2.1 General Information

With this DVD recorder, you can record on four types of DVD.

DVD+RW and DVD-RW

These discs can be recorded and erased multiple times.

DVD+R and DVD-R

These types of discs can only be recorded until the disc is full or you finalize the disc. After that, it is not possible to make further recordings on the same disc.

NOTE: If the disc was previously recorded, formatted or erased on any other recorder or PC, please first erase the disc with this device, before starting record operation.

3.2.2 Recording

After being sure about your device setup and general recording setup, check whether there is a recordable DVD in tray or not. Now you are ready to record. In order to start manual record to DVD you must switch to monitor mode without time shift.

Press **VIDEO SOURCE** key in DVD mode, it will switch to monitor mode without time shift. When you switch to this mode, you will see a record status display on screen. You can see the state of system (Recording, stop, pause), destination of the record, record quality, and time information about recording on this display.

Be sure that destination is set to "Optical Disc" at record status display on screen. If destination has been set to "Harddisk", press **HDD/DVD** key in this mode.

In this mode you can press **RECORD MODE** key to change the record quality before starting to record.

Then press **RECORD/DUB** key on your remote control or front panel of device. Recording process will start.

To stop the recording process, press **STOP** key.

Press **PLAY/PAUSE**(▶/;) key to pause recording and **RECORD/DUB** key to resume.

3.2.3 Inserting chapter

INSERT CHAPTER key on the remote control divides current chapter into two chapters from the moment you press this key (For only DVD).

NOTE: If you try to record to a pre-recorded DVD+RW disc that is recorded on different platform or PC, a warning message will be appeared. This message explains that the disc is not compatible and it has to be erased. Select Yes to erase disc or No to cancel erase and record operation.

NOTE: Editing will not be possible if a DVD+R disc is recorded entirely.

3.2.4 Disc Edit Menu

Disc Edit Menu will be activated by pressing 4 key of the remote control on the disc thumbnail picture. If you press 5 key while the first title picture is focused, you can view the disc thumbnail picture.



* For DVD+RW



*For DVD +R / DVD-R



*For DVD -RW

Play: You can play the recorded disc from the first title.

Rename Disc: You can change the disc's name by this option.

Erase optical Disc: This option allows you to erase the recorded disc if it's DVD+RW or DVD-RW.

Record a New Title: This option allows you to record a new title to the disc.

Overwrite Disc: With this option you can overwrite all titles in the disc. (for DVD+RW/DVD-RW)

Lock Disc: You can lock the disc in order to protect from overwriting or continuing to record. Only you can play the disc.

Unlock Disc: You can unlock the disc and continue to record.

NOTE: You can see "Unlock Disc" option if the disc is locked before.

Make Compatible: When you do chapter operations (add/delete marker, hide/unhide, etc.) on a title, this menu option will appear on the Disc Menu (available only with DVD+RW).

Since DVD+RW discs do not need to be finalized, if you have performed edit operations on a rewritable disc, in order to play the disc and see your changes on other recorders, "Make Compatible" operation must be done.

NOTE: Make Compatible operation may take long time.

Finalize Disc: It finalizes the disc recorded. It is not possible to do any operation on the disc after this process (available only with DVD+R or DVD-R/ DVD-RW).

When a DVD+R/ DVD-R disc run out of space, disc is automatically finalized after finishing recording. Therefore, further editing will not be possible.

3.2.5 Title Edit Menu

Title Menu lists all the actions you can do with the titles recorded on a recordable disc. It will be activated by pressing 4 arrow key of the remote control on the thumbnail picture of the title.

Play Title: You can press **SELECT** and play the selected title on the disc.

Edit Title: You can edit the titles on the disc. A new menu is displayed on the screen, and you can insert chapter marker, hide chapter or select index picture using this menu. (See Editing Title 3.2.6)

Rename Title: You can rename the title.

Erase Title: This option allows you to erase the selected title (available only with DVD+RW or DVD-RW).

Overwrite Title: You can overwrite and record another title onto the selected title (New title cannot be longer than the overwritten one). (available only with DVD+RW or DVD-RW).

Overwrite Disc: With this option you can overwrite all titles in the disc. (available only with DVD+RW or DVD-RW).

Append Title: A new recording can be appended to the last title. (available only with DVD+RW/ DVD+R or DVD-RW/ DVD-R).



3.2.6 Editing Title



Title number : View the number of current title / total title.

Chapter number : View the number of current chapter / total chapter.

Playback operations : Current operation status. It includes PLAY, PAUSE, STOP, Fast Forward/Backward, Slow Forward, ...

Chapter marker : When Insert marker is selected by pressing **SELECT**, a new chapter marker will be added to the current point.

When Delete marker is selected by pressing **SELECT**, the marker of the current chapter will be deleted.

When Delete all markers is selected by pressing **SELECT**, all of the chapter markers will be deleted.

Chapter hide or unhide : You can make a chapter invisible by selecting "Hide chapter" option. In this way, invisible chapters will be

skipped during disc playback.

NOTE: First chapter of the title cannot be hidden.

If the current chapter is hidden before, "Unhide chapter" will be displayed; and selecting this will make the chapter visible again.

Index picture : When you want to set the current frame as the title thumbnail picture of the current title, press **SELECT**.

Title Elapsed: Display the title elapsed time.

To exit editing mode, press **TITLE** key.

NOTE: Editing will not be possible if a DVD+R/DVD-R disc is recorded entirely.

3.3 RECORDING TO HARDDISK

3.3.1 Time Shifting

When you turn on the device if there is no disc inside, it will automatically switch to time shifting mode and a bar will be displayed on screen.

Other ways to switch time shifting mode are, pressing **VIDEO SOURCE** key when in hddisk title menu and selecting TV/Video option from Functions menu.

Time shifting allows buffering live TV broadcast for 60 minutes. At any time you can pause and resume live broadcast. You can also replay previously buffered scenes by going backward on the time shift bar.

During time shifting, you can press **DISPLAY** to view help and status information at any time. Each press of **DISPLAY** key will change screen information:

DISPLAY (once) : Time shifting buffer information. Current playback time, time of recording, time of recording minus 1 hour, trick mode status, Saving status, Channel/Source information

DISPLAY (pressed twice) : Key and navigation information

DISPLAY (pressed three times) : Removes all

While in time shifting mode, you can use following keys:

HDD/DVD : Harddisk title list
FUNCTION : Opens Functions menu
SETUP : Opens Setup menu
TIMER : Opens Timer menu
VIDEO SOURCE : Changes video source
PROGRAM +/- : Changes the channel
SEARCH(▶▶ / ◀◀) : Fast forward / backward (In 3 different speeds)
4 : Jump forward 30 seconds.
3 : Jump backward by 10 seconds.

NOTE: If you change the source of video and the video standard is different (NTSC vs. PAL), the Time shifting buffer will be erased.

NOTE: During Time shifting, a Timer recording (programmed recording) may come up. But watching a channel in time shifting and recording another channel can not be done simultaneously. Therefore, a confirmation message will be shown as whether you want to keep watching the current channel (select No option) or proceed timer recording (select Yes option). If there is no response, recorder assumes timer recording should be started. The confirmation message will be shown 3 minutes before the timer recording will be started.

Time shifting is stored in a buffer that contains 60 minutes of recording. After 60 minutes, the buffer will be progressively overwritten. If you need to keep the video contained in this buffer for future usage, you can Save the desired part of the buffer.

NOTE: When the harddisk is full, buffering will not be possible at time shift mode.

NOTE: During time shifting, pressing **PLAY/PAUSE(▶/;)** key may cause 10 seconds of saved title loss.

3.3.2 Save Operation

While watching a program, press **RECORD/DUB** key on the remote control. Then recorder will start to save the part you are watching. By pressing **RECORD/DUB** key again, OTR function will be activated and record length will be increased by 30 minutes up to 3 hours according to the selected record quality. The part that is being saved will be in red color on the time shifting bar. In order to finish saving operation, press **STOP** key on the remote control.

NOTE: While saving operation is in progress, you can not change the channel or source. In order to change channel or source, you have to stop saving operation manually(by pressing **STOP** key). The segment will be saved on harddisk.

NOTE: Only one segment in time shifting buffer can be identified for saving. It is not possible to identify multiple segments. Once the segment has been saved and registered on title list, then this segment (and its preceding video part) will be removed from the time shifting buffer when **STOP** key is pressed.

NOTE: In time shifting mode, maximum record length for one title is 3 hours. Therefore, if you want to save a program longer than 3 hours, one or more titles will be created. For example, if you are saving a program for 10 hours, four titles will be created; 3 titles with 3 hours and one title for one hour.

NOTE: During time shifting or saving, pressing **PLAY/PAUSE(▶/;)** key may cause 10 seconds of saved title loss.

NOTE: While saving operation is in progress, it is not allowed to play a DivX movie.

3.3.3 Manual Record

In order to record manually to harddisk you have to switch to monitor mode without timeshift as it is explained above for optical disc. Please be sure about the destination of record. If it is not set as harddisk, press **HDD/DVD** key in order to change it. You can change record quality by pressing **RECORD MODE** key.

Then press **RECORD/DUB** key on your remote control or front panel of device. Recording process will start. To stop the recording process, press **STOP** key. Press **PLAY/PAUSE (▶/;)** key to pause recording and **RECORD/DUB** key to resume.

Every information of recording will be displayed on monitor mode's information view.

3.3.4 Harddisk Title List



In order to switch to harddisk title list, press **HDD/DVD** key on the remote control or select **HDD** from Functions menu.

The title list displays the list of all the titles you have saved on the harddisk. For each title, the duration, a thumbnail picture, and the recording mode (HQ, SP etc) are shown. Also you can see if a title has been segmented (Edit icon next to the thumbnail), protected against deleting, or editing (Safe box icon next to the thumbnail) or locked for playback or editing unless the correct password has been entered (Lock icon

next to the thumbnail).

The title list also allows you to select title(s) for dubbing to DVD, start playing or editing a title. Most common hot keys and navigation information are provided below the harddisk title list.

NOTE: The dynamic navigator shows you which arrow keys are active.

NOTE: Maximum number of titles saved on harddisk and maximum number of chapters per title are 254.

3.3.5 Title List Sorting

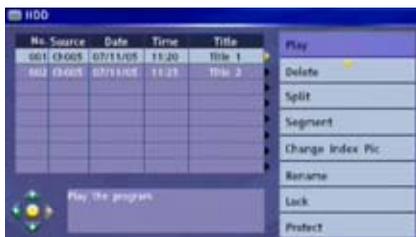
This function allows you to view the HDD title list in different orders. You first have to be in the harddisk title list screen. Press on the **DISPLAY** key repeatedly for one of the following sorting options:

- **Sort by date/time descending:** The most recent recording appears on top of the list
- **Sort by name ascending:** Names in order: A to Z (titles with the same name will appear in ascending time order, with the oldest one being higher than the more recent one)
- **Sort by name descending.** Names in order: Z to A (titles with the same name will appear in ascending time order, with the oldest one being higher than the more recent one)
- **Resume to default, sort by date/time ascending:** Most recent recording appears last on the list.

NOTE: The default order is by date/time ascending and will be applied every time you enter the HDD title list.

3.3.6 Harddisk Title Edit Menu

Harddisk Title Menu lists all the actions you can do with the titles recorded on harddisk. It can be activated by pressing **4** arrow key of the remote control on the title of the harddisk title list.



Play: You can press **SELECT** and play the selected title.

Delete: Title can be deleted unless the title is protected or locked. A message will be shown to confirm the operation.

Split: Title can be split into two titles with this option.

After choosing Split option, it will switch to playback view and by pressing **SELECT** key you can determine the point of splitting operation. A message will be shown to confirm the operation.

NOTE: Split operation is irreversible. Once the program has been split, the 2 titles can not be concatenated back.

NOTE: Split screen can only be accessed if the title you want to split is not Protected or Locked .

- Return key will switch back to HDD title list without splitting
- If the splitting point is not chosen and the title playback comes to an end, then the system will switch to HDD title list.
- When the operation is finished, the system will switch back to title list and the first part of the program will be highlighted.

NOTE: Split operation can be done after approximately 1 second of title.

NOTE: This operation is not allowed if the title is Locked or Protected.

Segment: With this option you can select a part to become hidden in a title. You can navigate on segment screen and press **SELECT** key at the points you determine to segment the title. So after the operation, title will be played without the parts you marked with this operation. Also hidden parts will not be copied to DVD if segmented title is selected for dubbing. If you re-enter the segment screen for the same title, you can see the identified segments. You can unhide segmented parts by first pressing **SELECT** key on the starting point of the segment and then pressing again at the end point.

NOTE: Segment screen can only be accessed if the title is not Protected or Locked.

Change Index Picture: You can navigate the title like in playback and when the desired picture is viewed on screen press **SELECT** key to change the index picture.

NOTE: This operation is allowed unless the title is Locked or Protected.

Rename: You can rename the title by using the on-screen keyboard.

NOTE: This operation is allowed unless the title is Locked or Protected.

Lock / Unlock: When you lock a title, the parental password selected in the Setup menu will be used. You will be asked to Unlock the title before Playback, any Editing or Dubbing operation. In order to Unlock, you will be prompted to enter the password. A locked title will have a lock icon next to its index picture on HDD title list.

Protect: When this option is set for a title, you can play or Dub it to DVD, but you cannot do any editing operations (split, segment, change index picture, delete) on that title. In order to unprotect, select Unprotect from harddisk title edit menu. A protected title will have a safe box icon next to its index picture on harddisk title list.

NOTE : While Harddisk is full , some operations need disk space such as split operation may not be performed.

3.4 DUBBING

Before selecting titles for dubbing, you should insert a recordable disk in tray (Please see section of Supported Discs). If the disc was not used before, recorder will format the disc or determine compatibility and free recordable space for a few moments.

For Dubbing operation, navigate the title list with arrow keys and press **PLAYLIST+/-** key on the title you want to Dub. When a title is added to dubbing list, Dubbing icon will appear next to it on the title list. If you want to remove the title from dubbing list, press **PLAYLIST+/-** key on the title you want to remove.

You will see the percentage of used disc space on top right corner of the harddisk title list screen.

In order to start Dubbing operation press RECORD/DUB key on the remote control. When Dubbing starts the recorder will switch to time shift monitor mode and time shifting will start automatically, a dubbing icon can be seen on top left corner of the screen. You can press HDD/DVD key to display harddisk title menu.

NOTE: You can play titles from and record to harddisk, while Dubbing operation is in progress.

NOTE: Titles can be dubbed to DVD if the title is not locked.Editing will not be allowed during Dubbing.

NOTE: If the writing to DVD fails at any point during this operation, the following message will appear: "Dubbing operation could not continue". All Dubbing Icons will be removed automatically.

3.5 TIMER RECORDING

3.5.1 General Information

You can use programmed recording (timer) to automatically start and stop a recording at a later time. The DVD Recorder will switch to the selected program number and begin recording at the selected time.

To make a programmed recording, your DVD recorder needs to know:

- the program number of the TV channel or video source
- the destination of recording
- the recording quality (HQ, SP, LP, EP, SLP)
- the mode of the recording (once, daily, weekly, Mon~Fri, Mon~Sat, weekend)
- the date you want to make the recording
- the start and stop time of the recording

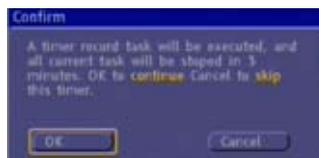
3.5.2 How To Create Recording Item?

- Press **TIMER** key on the remote control or select Timer Setting Menu from Setup menu
- Press **SELECT** on the first blank item to program recording
- Set the source of recording
- Set the destination of recording
- Set the quality of recording
- Set the mode of recording
- Set the recording time (start and stop time for recording process)



3.5.3 How To Check, Change or Delete A Programmed Recording (Timer)?

- Switch on the TV set.
- Press **TIMER** key on the remote control or select Timer Setting Menu from Setup menu.
- In order to change any parameter of the programmed recording item, choose the related record item, press **SELECT** key. On the displayed popup menu, you can change any fields.
- To delete the programmed recording item, after steps 1 and 2, go on the item you want to delete on the list and press **CLEAR** key; related item will be deleted from the list.



The standard maximum number of Timer recordings will be 20.

NOTE: If a recording is continuing onto harddisk (time shifting), 3 minutes before timer recording you will be asked to confirm timer recording. If you do not respond within 1 minute, then Timer recording will start automatically. If you are recording onto DVD, then 3 minutes before timer recording you will be notified that you need to stop the current recording in order to allow timer recording. The message will appear for 10 seconds and be removed automatically. If you do not stop the current recording, then the timer recording will be ignored.

NOTE: If Timer recording is onto harddisk, you can view the title being recorded in time shifting mode (Pause/Play/..). Save operation will be disabled.

4. PLAYBACK

4.1 DISC PLAYBACK

4.1.1 Preparing For Playback (All Discs)

- Ø To playback a disc, turn on the TV.
- Ø If the DVD Recorder audio outputs are connected to an A/V receiver, turn on the receiver and make the appropriate selections to play audio from the DVD Recorder. Otherwise connect audio output to TV input.
- Ø Set options in the setup menus that are appropriate for your speaker arrangement and configuration, for the video standard (PAL or NTSC) of your television monitor, and for the video picture aspect ratio.
- Ø For a DVD, check packaging and determine whether the parental control level and local setups are appropriate for your country. Refer to setup menus for the Country and Parental controls.
- Ø DVDs are encoded for six different regions. Check that the region designated on the DVD packaging conforms to your region. You cannot make any changes in the setup menu that will effect the region encoding.

4.1.2 Inserting a Disc In The Tray

Insert a disc in the DVD Recorder tray with the shiny side down. **NOTE** that some discs shine more than others. In the case of commercial CD's, the disc identifying information is printed on the "top" side of a disc. Do not insert more than one disc in the disc tray at a time.

NOTE: If the disc is placed in upside down (and it is a single sided disc), the VFD display on the DVD recorder will indicate NO DISC.

4.1.3 Basic Playback (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG, DivX)

Some playback operations and interactivity features of DVD and may be intentionally fixed by the software producer. Accordingly, some playback features may not be available. You should refer to the instructions supplied with the DVD. The simplest way to playback a disc is to follow this procedure.

1. Press on the **STANDBY** key.
2. Press **OPEN/CLOSE** to open the disc tray.
3. Place a disc onto the tray.
4. Press **OPEN/CLOSE**.

The disc tray is automatically closed and play commences.

DVD: A menu may appear on the TV screen after a moment or the film may start immediately after the introduction of the movie company. You can select a specific scene to play if provided in this menu. This behavior depends on the disc content and may change.

This statement assumes that parental controls are off or set in such a way to allow the disc to play unimpeded and also the region of DVD conforms to your region.

(S)VCD:

- **With PBC:** If disc contains a menu, it will appear on the screen after a moment. You can select a specific scene to play, if provided in this menu.
- **Without PBC:** It plays the content.

CD-DA: It starts playback of the first track automatically.

MP3/WMA / JPEG / MPEG / DivX : CD menu is appeared, all files and folders are listed on the screen.

5. If a menu is active on screen, press arrow keys to navigate or press **SELECT** to select a menu item.

4.1.4 Stopping Playback (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG, DivX)

DVD / (S)VCD: Press **STOP(■)** twice.

- During normal playback press **STOP(■)**. The unit memorizes the point where **STOP(■)** was pressed once (RESUME/Pre-Stop function) and a message "Press PLAY to continue" will appear on the screen. The screen displays a stationary logo or the screensaver is displayed after a timeout interval. Press **PLAY/PAUSE(▶/⏸;)** again while the screensaver is not active, and play will resume from this point. If the tray is opened or the **STOP(■)** is pressed again, the RESUME (Pre-Stop) function will be cleared.

CD-DA / MP3/WMA / JPEG / MPEG / DivX :

In PLAY or PAUSE state, when the **STOP(■)** key is pressed once, playback is stopped permanently. Press **PLAY/PAUSE(▶/⏸;)** for starting from the beginning.

4.1.5 Pausing Playback (ALL DISCS)

1. Press the **PLAY/PAUSE(▶/⏸;)** key any time during playback of a disc.

A "freeze frame" is created that stays on the screen until you resume playing the disc. Sound is muted during still playback.

2. To resume playback, press the **PLAY/PAUSE (▶/⏸;)** key.

4.1.6 Removing a Disc (ALL DISCS)

Press **Open / Close** key on the remote control or **▲** key on the front panel. Remove the disc and press the same key to close the tray.

4.1.7 Repeat Play

Repeat play modes are activated by pressing **REPEAT** during playback and vary with media. Each time this key is pressed, a different repeat box is displayed on the screen.

In NORMAL mode the repeat mode is disabled.

DVD:

- CHAPTER REPEAT
- DISC REPEAT
- TITLE REPEAT
- NORMAL

(S)VCD / CD-DA:

- TRACK REPEAT
- DISC REPEAT
- NORMAL

MP3/WMA / JPEG / MPEG / DivX :

- TRACK REPEAT
- DISC REPEAT
- FOLDER REPEAT
- NORMAL

4.1.8 Repeating a Specific Segment A to B (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG)

This method of repeating a segment on a disc relies on designating points on the disc to delineate where to start and end.

1. As the disc plays, press **A-B** key. "Set A_" is displayed.
2. At the point you want to end the segment press the **A-B** key again.
3. "A-B REPEAT" is displayed and the repeat play of the selection between points A and B starts.
4. To end repeat play of the segment you designated, press the **A-B** key.

4.1.9 Displaying a Scene With a Larger and Closer View

The zoom in function enables you to take a closer look at the scene you are viewing that is especially a considerate function when you are watching science fiction or adventure films.

DVD / (S)VCD :By pressing **ZOOM** key consecutively you can get to "Zoom %150", "Zoom %200" modes.

JPEG: In playback of the JPEG files, first press of the **ZOOM** key makes it go into the ZOOM ON mode. To increase magnification press **SEARCH** (▶▶) key consecutively. You can get to %12, %25, %50, %100, %200, %400 and FITSCREEN modes.

Pressing **ZOOM** again will return to ZOOM OFF mode and the picture is now in its normal size.

To start slide show again, press PLAY/PAUSE key.

NOTE: You can move in the picture i.e. change the zoomed location by using the (3 /4 /5 /6) arrow keys (DVD, (S)VCD, JPEG).

4.1.10 Selecting Subtitle Language (DVD, DivX) (Displaying / Changing Subtitle Language)

DVD: It is possible to change the subtitle language from the one selected at the initial settings to a different language available on disc or turn it off, if available. (This operation works only with discs on which multiple subtitle languages are recorded, and also if it is not prohibited by the disc.)

Press **SUBTITLE** during playback.

When this key is pressed once, the first subtitle recorded on the disc will be displayed. The rest of the subtitles recorded will be displayed in sequence at each press of the **SUBTITLE** key.

NOTE:

- When the preferred language is not selected even after pressing the key several times, it means that the language is not available on the disc.
- When the recorder is restarted or the disc is changed, the subtitle selection is automatically changed back to the initial settings.
- Usually a circulation will happen while switching to another language. Thus in order to cancel the subtitle press this key a number of times until "SUBTITLE OFF" appears on the screen.

DivX :To install a subtitle language to a DivX movie, first you must select a subtitle file that is recorded in the disc. Then it plays movie with the installed subtitle language.

For turning off, press **SUBTITLE** key again.

NOTE: If the characters in the selected subtitle are not displayed correctly, from OSD language option in the Setup Menu, change the subtitle language to the one you want to display.

4.1.11 Changing Audio Soundtrack Language (DVD, DivX , MPEG)

Your default language choice is determined by the language you set in the Language, Audio Language menu. Typically a DVD will have a menu that you can make a language selection from, before starting playback or after the playback begins. Moreover, using the remote control; **AUDIO** key allows switching between audio tracks once a DVD has started playing. It is also valid for DivX and MPEG videos.

Press **AUDIO** a number of times until the preferred language is selected.

NOTE:

- When the preferred language is not selected even after pressing the key several times, it means that the language is not available on the disc.
- When the device is turned on or the disc is removed, the language heard is the one selected at the initial settings. If the language is not recorded on the disc, only the available language on the disc will be heard.

4.1.12 Changing the Camera Angle (DVD)

Some DVDs provide multiple shots of a selected scene each from a different camera angle, so you can choose which angle you are most interested in viewing. A small icon appears on the screen when multiple angles are available.

Press **ANGLE** during playback. The current angle is changed.

Press **ANGLE** a number of times until the preferred viewing angle is selected.

NOTE:

- This function will only work on discs where different angles have been recorded. The number of recorded angles differs depending on the disc used.

- If you press **ANGLE** outside of a multi-angle scene on a multi-angle title, you will see that  is displayed. It means that only one angle is currently available.

4.1.13 Fast Forward / Backward

Press **SEARCH (◀◀)** or **SEARCH (▶▶)** on the remote control during playback.

The speed of advance or reverse changes at each press of the **SEARCH (▶▶)** or **SEARCH (◀◀)** key.

Pressing **SEARCH (◀◀)** key in Fast Forward state and pressing **SEARCH (▶▶)** key in Fast Backward state decreases the scan speed.

To resume the normal playback press **PLAY/PAUSE (▶/;)** key.

JPEG: In ZOOM ON mode; **SEARCH (▶▶)** key is used to zoom in, **SEARCH (◀◀)** key is used to zoom out the picture.

Supported speeds:

DVD: x2, x4, x8, x16, x32 **(S)VCD:** x2, x4, x8, x16, x32

DivX : x8, x16, x32 **CD-DA :** x2, x4, x8, x16, x32

MP3/WMA: x2, x4, x8, x16, x32 **MPEG:** x8, x16, x32

NOTE: The fast forward and backward operations are not circular. The sequence for the fast forward and backward is as follows:

(FR x32, FR x16, FR x8, FR x4, FR x2, PLAY, FF x2, FF x4, FF x8, FF x16, FF x32)

Audio is muted during fast forwarding or reversing.

4.1.14 Slow Forward Playback (DVD, (S)VCD)

Slow-motion playback is good for searching or just observing a small section of the disc. To begin slow-motion play forward, first press **PLAY/PAUSE (▶/;)** once during playback. The screen suspends.

Then, press **SEARCH (▶▶)** on the remote control during playback.

You can increase or decrease the speed of the slow-motion play by pressing **SEARCH (▶▶)** or **SEARCH (◀◀)**. The speed of slow motion is displayed on the screen each time you change it.

Supported speeds: **DVD:** x1/2, x1/4, x1/8 , **(S)VCD:** x1/2, x1/4, x1/8

NOTE: The sequence for the slow-motion is as follows:

(PAUSE, SF 1/2x, SF 1/4x, SF 1/8x)

Audio is muted during slow-motion playback.

4.1.15 Skipping Ahead or Back (DVD, (S)VCD, CD-DA, MP3/WMA, JPEG, MPEG, DivX)

4.1.15.1 Skipping Ahead

Press **SKIP (:)** on the remote control or on the main unit during playback.

DVD:In any playback state, a chapter or title is skipped forward depending on the information on the disc each time the key is pressed.

(S)VCD:

With PBC: In any playback state, next entry point in the current track is started.

Without PBC: In any playback state, the next track is started.

CD-DA, MP3/WMA, MPEG: Next track is played in any playback state.

DivX : Next DivX file is played.

JPEG: Next picture is displayed.

4.1.15.2 Skipping Back

Press **SKIP (⊖)** on the remote control or on the main unit during playback.

DVD: In any playback state, a chapter or title is skipped backward depending on the information on the disc each time this key is pressed.

(S)VCD: With PBC: In any playback state, previous entry point in the current track is started.

Without PBC: In any playback state, the previous track is started.

CD-DA, MP3/WMA, MPEG: Previous track is played in any playback state.

DivX: Previous DivX file is played.

JPEG: Previous picture is displayed.

4.1.16 Step Forward (DVD)

Press **PLAY/PAUSE** (▶/⏸) once during playback.

The screen suspends.

Press **SKIP** (:) on the remote control or on the main unit during playback.

The next frame of the movie is displayed and press **SKIP** (:) for the following frames.

Audio is muted during frame advance.

To return to normal playback press **PLAY/PAUSE**(▶/⏸) key.

4.1.17 Locating A Specific Title or Chapter, Using The MENU or TITLE Button (DVD)

Some DVD discs have unique menu structures called DVD menus. For example, DVD's programmed with complex content, provide guide menus, and those recorded with various languages, provide menus for audio and subtitle language. Although the DVD menus' content and operation differ from disc to disc, the following explains basic operations when this feature is used.

To play a specific title on a DVD, you can use the **MENU** or **TITLE** key to display a menu to make your title and chapter selection. The procedure described here is general in nature. If the steps do not seem appropriate for the DVD you are attempting to play, disregard these instructions and follow the instructions that appear on the screen.

1. During normal playback, press **MENU** or **TITLE**.

The screen displays a menu. The menu may not contain all the chapters in the movie title. However, the disc creators provide additional menus to navigate, which cover all the chapters. Use the arrow keys to navigate on menus.

2. Position the screen highlight over your selection and press **SELECT**. Alternatively, you can press the number of the desired chapter.

4.1.18 Browsing For A Specific Chapter/Title (DVD)

Press **SEARCH** on the remote control during playback "once" for titles (if more than one title is available) and "two times" for chapters (if more than one chapter is available).

The chapter/title search box is displayed on the screen. You can see the total numbers of titles/chapters as --/xx.

Enter the number of the title or chapter using number keys.

The selected title or chapter is played just after you enter number and wait for 4-5 seconds.

NOTE:

- If you attempt to enter a number greater than the total number of titles/chapters, it clears the numbers entered, displays (chapter/title) / xx and continues to play.
- If you wait more than five seconds without pressing any number, the operation is cancelled.

4.1.19 Moving To A Specific Elapsed Time (DVD, (S)VCD)

DVD: You can view the DVD starting from any time point you want.

Press **SEARCH** on the remote control "three times" during playback.

The title is played beginning from the desired time just after you enter the time and press **SELECT** key, if not prohibited by the DVD.

(S)VCD: You can view (S)VCD according to the disc or track time any time you want.

Press **SEARCH** on the remote control "once" during playback for disc time search. In order to start from any time within a track, press **SEARCH** "two times" during playback.

The time search box is displayed on the screen. You can see total runtime of the track or disc as --:--:--/xx:xx:xx

Enter the time using number keys.

The track or disc is played beginning from the desired time just after you enter the time and wait for 4-5 seconds or press **SELECT** key.

NOTE:

- If you attempt to enter a number greater than the total time, it clears the numbers entered and continues to play.
- If you wait more than five seconds without pressing any key for selecting scenes by time operation is cancelled.

4.1.20 Browsing For A Specific Track/Time (CD-DA, MP3/WMA, MPEG, JPEG)

Press **SEARCH** on the remote control.

Enter the number of the track you want to play by using number keys.

The selected track is played just after you enter number and wait for 4-5 seconds or press **SELECT** key.

Second press of **SEARCH** key on the remote control will make you time search of the playing media (except JPEG). (Only in playback state)

The time search box is displayed on the screen. You can see total runtime of the track as --:--:--/xx:xx:xx.

Enter the time using number keys.

The track is played beginning from the desired time just after you enter the time and wait for 4-5 seconds or press **SELECT** key.

4.1.21 Checking Elapsed/Remaining Time (except JPEG)

To determine how long a file has been playing, you can check the elapsed time by pressing **DISPLAY** key. You will see the display menu on the screen and you can select track's/chapter's elapsed/remaining time or disc's/title's elapsed/remaining time from the menu option. The chosen time style will also be shown on the VFD. To close the display menu press **DISPLAY** again.

4.1.22 Playback Control ((S)VCD)

If a video CD has "playback control" written on the disc or jacket, it means that particular scenes or information can be selected for viewing interactively with TV screen using the menu screen.

TITLE key is dedicated to PBC "playback control" during playback. You can change PBC mode with **TITLE** key or with PBC menu item on the Display menu.

PBC option will be on by default.

4.1.23 Playback Modes (CD-DA, MP3/WMA, JPEG, MPEG)

Press **PLAY MODE** on the remote control.

Display menu will appear on the screen and pressing **PLAY MODE** consecutively, you can change playing options of the tracks as below.

CD-DA:

Program: You can prepare a playlist with this option. The same type of files can be arranged to build a playlist.

Select files with 5 / 6 keys and add file with **PLAYLIST +/-** key on remote control to make the playlist. To remove added files from playlist, come upon to file with 4 key and press **PLAYLIST +/-** key on remote control.

To start playback of playlist press **SELECT** key on the file you want to play.

All playback operations are available in the playlist you prepared.

NOTE: Only difference for MP3/WMA, JPEG and MPEG files, press **PLAY MODE** key and it will start playing the playlist you prepared immediately.

Random: When this play mode is selected, the tracks in the current folder will be played once in a random order.

Intro Play: Intro menu is used for introducing the content of the disc. It plays only for first 10 seconds of each track and then passes to the next track.

Normal: Tracks in the current folder will be played sequentially.

JPEG, MPEG: Intro mode is not available with JPEG and MPEG files. But other options are the same.

4.1.24 Simultaneous Playback (JPEG, MP3/WMA)

If your disc has both MP3/WMA and JPEG files, you can listen MP3/WMA audios while viewing JPEG files.

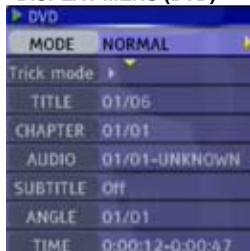
When you start slideshow of the JPEG files, you can select and listen to an MP3/WMA file simultaneously.

You can control these two types separately by using their relational display menus. If **AUDIO** is selected as **TYPE** you can control MP3/WMA playback options. Similarly, if **PICTURE** is selected you can control JPEG playback options.

4.1.25 DISPLAY MENUS

Display menus are activated by pressing **DISPLAY** key while disc is in playback.

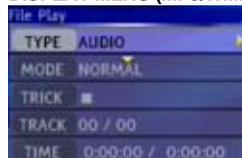
DISPLAY MENU (DVD)



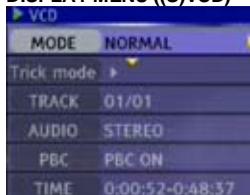
DISPLAY MENU (JPEG/STILL PICTURE)



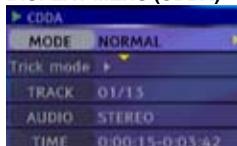
DISPLAY MENU (MP3/WMA)



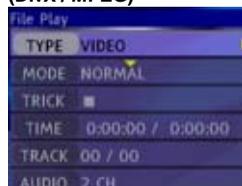
DISPLAY MENU ((S)VCD)



DISPLAY MENU (CDDA)



DISPLAY MENU (DivX / MPEG)



4.2 HARDDISK PLAYBACK

To play a title on harddisk, open harddisk title menu and press **SELECT** key upon the title you want to play or open popup menu by pressing **4** key upon the title and select Play from the menu.

During harddisk playback, following remote control keys are valid:

- PLAY/PAUSE** : Plays/Pauses playback.
- STOP** : Stops playback. Return to title list.
- RETURN** : Stops playback and returns to title list.
- SEARCH(▶▶)** : Fast forward (In 3 different speeds)
- SEARCH(◀◀)** : Fast backward (In 3 different speeds)
- PLAY/PAUSE + SEARCH(▶▶)** : Slow forward (In 3 different speeds)
- SKIP(:)** : Skip next title.
- SKIP(⊖)** : Skip previous title.
- DISPLAY** : Display OSD info and help. (Press repeatedly to display: progress bar, helper text, add title information to the top, close all display)
- REPEAT** : Repeat title.
- 4** : Jump forward 30 seconds.
- 3** : Jump backward by 10 seconds.
- HDD/DVD** : Switch between HDD title list and DVD playback modes.
- TIMER** : Timer recording menu.
- ZOOM** : Enlarge the frames of playing scene (1.5x and 2x)
- FUNCTION** : Open Functions menu.
- VIDEO SOURCE** : Switch to timeshift monitor mode and navigate between other sources.

NOTE: For detailed information about the functions above, see related parts at Disc Playback section.

5. LIMITATIONS AND SOME OTHER FEATURES

5.1 Recorder Features And Limitations

- 1) This DVD recorder cannot record any disc recorded before by another machine unless it is erased (available only with DVD+RW or DVD-RW)
- 2) In one disc, you can keep 49 titles.
- 3) There is no time search on a pre-recorded disc, so use auto chaptering as much as possible.
- 4) You cannot record PAL/NTSC in the same disc.
- 5) You must finalize DVD+R or DVD-R/DVD-RW to play on DVD recorder. If you don't do it, you may not play it with other devices.
- 6) Maximum recording time depends on the record quality option you choose.
- 7) Timer will be active only when the device is at normal STANDBY state.
- 8) When playing a CD with MP3/WMA files
 - MP3/WMA files should be ISO9600 or JOLIET format
 - When naming MP3/WMA files, do not exceed 8 characters and place .MP3/WMA as the file extension
 - Do not copyright MP3/WMA files
 - Do not exceed more than 500 files per folder

6. SPECIFICATIONS

Power Requirements	220 – 240 Volt ~50Hz (Auto Adjustable)	
Power Consumption	Low Power Standby	2.1 Watt
	Maximum	41 Watt
Supported Recording Media	DVD	DVD+R, DVD-R DVD+RW, DVD-RW
Supported Playback Media	DVD	DVD-Video DVD-R (DVD Video or data) DVD-RW (DVD Video or data) DVD+R (DVD Video or data) DVD+RW (DVD Video or data)
	CD	CD-Audio CD-R CD-RW (S)VCD Kodak Picture CD Copy Protected Audio CD DivX
Video Type	MPEG-2 Video Standard Decoding (MPEG-1 supported) MPEG4 640x480, DIVX 3.x, 4.x & 5.x Full-screen video display of 720x576 (PAL) & 720x480 (NTSC) 50 and 60 Hz frame refresh rates (PAL&NTSC) Digital bit stream processing rate up to 10.08 Mbits/sec Line resolution more than 500 lines	
Video Input	Front	Cinch Socket Composite video in S-Video in (Mini DIN)
	Rear	Via SCART Aerial in
Video Output	CVBS	PAL / NTSC(Negative synchronized), 1Vpp@75 ohm (loaded)
	RGB+CVBS	Through Full Euroscart Output (Pin-16 control)
	Aerial	
Audio Type	Dolby Digital Decoding MPEG Multichannel (Up to 5.1 channel) Decoding LPCM (24 bit 96 kHz, 48kHz downsampling) MP3/WMA	
Audio Input	Front	Cinch Socket Stereo Analog L/R
	Rear	SCART (Analog L/R)
Audio Output	Digital Audio Outputs	S/PDIF (AC-3 or DTS encoded 5.1 channel digital audio) Optical and/or Coaxial.
	Analog Outputs	'24 Bit 96 kHz DAC'
		2 RCA jack outputs (Left / Right)
		Left / Right Audio Outputs of Full Euroscart
		2 Vrms (0 dB fs, 1kHz)
TV Broadcasting	PAL	
	SECAM	
	B/G	
	DK	
	L/L'	
Receiving Channels	VHF (Band I/II)	
	UHF (Band U)	
	HYPERBAND	
	Cable TV	B/G : S01-S41 / S75-S79 D/K : S01-S41
Number of Preset Channels	100	
Copy-Protection	Macrovision 7.1	
Dimensions	430 (W) x 50 (H) x 325 (D)	
Weight (Device) (kg)	4.106 kg	
Weight (Device+case) (kg)	5.020 kg	

SUPPORTED DivX AUDIO & VIDEO FORMATS

Video Format / Audio Format	PCM	MP3/WMA	AC-3	Ogg Vorbis
DivX 3.1.1	√	√	√	×
DivX 4.0.2	√	√	√	×
DivX 4.1.1	√	√	√	×
DivX 4.1.2	√	√	√	×
DivX 5.0.0	√	√	√	×
DivX 5.0.1	√	√	√	×
DivX 5.0.2	√	√	√	×
DivX 5.0.3	√	√	√	×
DivX 5.0.5	√	√	√	×
DivX 5.1.0	√	√	√	×
DivX 5.1.1	√	√	√	×
DivX 5.2.0	√	√	√	×
DivX 5.2.1	√	√	√	×
XviD	√	√	√	×
MPEG4 (640x480)	√	√	√	×
Multi-Audio DivX	√	√	√	×
BivX	√	√	√	×

TROUBLESHOOTING GUIDE

The picture quality is poor(DVD)

- Make sure the DVD disc surface is not damaged(Scratch, fingerprint etc.)
- Clean the DVD disc and try again.
- Ensure that the DVD disc is in the tray with the label uppermost.
- A damp DVD disc or condensation may affect the equipment. Wait for 1 or 2 hours in Stand-by to dry the equipment.

Disc does not play

- No disc in the machine.
Place a disc in the tray.
- Disc incorrectly loaded.
Ensure that the DVD disc is in the tray with the label uppermost.
- Wrong type of disc. The machine cannot play CDROMs etc.
Use disc in supported formats .
- The region code of the DVD must match that of the recorder.

Wrong OSD language

- Select the language in the setup menu.

Subtitle characters are not displayed properly while watching a DivX movie

- Select appropriate language in the setup menu (Setup menu / Language / OSD Language)

The language for the sound or subtitles on a DVD cannot be changed

- Multilingual sound and/or subtitles not recorded on the DVD.
- Try to change the sound or subtitles using DVD's title menu. Some DVD's do not allow the user to change these settings without using the disc's menu.

Some functions(Angle, Zoom etc.) do not work

- These functions are not available on the DVD.
- Angle can only be changed when the angle symbol is displayed.

The picture colors are not OK

- Check the video output mode and select the appropriate mode.

No picture

- Check if the recorder is connected to TV properly and that all connections between the DVD recorder and other attached equipment are secure.

No sound

- Check the volume is set to an audible level.
- Make sure you have not switched the sound off accidentally.

Distorted sound

- Check that the appropriate listening mode is selected.

No response from remote control

- Make sure the remote control is in the correct mode.
- Check the batteries are fitted correctly.
- Change the batteries.

Record key does not start recording

- Make sure there is a recordable (DVD+RW, DVD+R, DVD-R or DVD-RW) disc inside the recorder.
- If you wish to record from RF input, check the program table to see the available channels. You may need to do an APS (Automatic program search) again to record, if the automatic search after installation has failed to find channels.
- If you wish to record from the SCART, CVBS, S-Video source, make sure that the record source is active and sending signals.
- To record from a DVD player the DVD should not be copy protected.
- If there is no space left on the disc you will see the error message "disc is full." Erase some titles to create space for new recordings.

Switch to a source, but there is no signal

- Make sure the antenna is connected to RF input and there is TV broadcast on some channels.
- If you are using scart, CVBS, S-Video inputs, make sure the record source is properly connected and switched on.

Timer recording does not work

- Make sure that the system time and record start time are set correctly.
Time will be displayed when the recorder switches to standby in power saving off mode.
- Make sure that the program number of the scheduled record is on the program list.
You will not be able to record, if the program number found during APS does not contain an active channel.

Edit disc option is disabled

- Make sure that the recorder is in "full stop mode".

Your country doesn't exist in "Country Selection" list in setup menu.

- Select "Other" option.

Audio is not proper in tuner mode.

- Make sure right country is selected before APS or manual search.
- Make sure right audio standard is set for related program in Modify Channel menu.
- Change Standard option manually if needed

If nothing works

- If you have tried the above solutions and nothing seems to work, try switching your DVD off and on again. If this does not work, contact your supplier or your initiating service. **Never attempt to repair a defective DVD recorder yourself.**

NOTE: Please note that you may experience compatibility problems during playback or editing of the discs that are recorded on other DVD Recorder Brands.

Cut this information box out and
keep in a safe place.

If You Forget The Password:

Press 3, 3, 0, 8.
Then please set your personal password.

ENGLISH

A. Information on disposal geared towards private users (households).

Within the scope of European Union



Caution: if you would like to throw away this device, please do not throw it into an ordinary bin!

The used electrical and electronic devices need to be separately recycled and in conformance with the laws in force in terms of treatment, recovery and recycling of those devices.

As per the enforcement of these regulations in the Member States, the persons within the body of the European Union may from now on return for free their electrical and electronic devices that are out-of-service to the designated collection sites or to a point of sale as part of the purchase of an equivalent product.

If your electrical or electronic device that is out-of-service bears batteries, please make sure you place them separately in the allowed collection systems in conformity with the legislation in force.

By ensuring the correct disposition of this product, you will also have prevented potential harmful effects to the environment and human health due to its incorrect handling.

B. Information on disposal geared towards enterprises

Within the scope of European Union

If this product has been used within the framework of the activities of your enterprise and you would like to throw it away:

Please contact your dealer who will inform on the conditions of resumption for the product. The fees for resumption and recycling may be invoiced to you. The products of small sizes (and in small quantities) may be resumed by your local recycling organizations.