

DVD Recorder/Hard Disk

HDRW 720/17



Owner's Manual



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Most importantly, you can count on our uncompromising commitment to your total satisfaction.


All of this is our way of saying welcome - and thanks for investing in a PHILIPS product.

P.S. To get the most from your PHILIPS purchase, be sure to complete and return your Product Registration Card at once.

Know these **safety** symbols



 This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

 The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

ATTENTION: Pour éviter les choc électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No.: **HDRW 720/17**

Serial No. _____



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Acknowledgments

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Safety Information

Safety Precautions

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

Federal Communications Commission (FCC) Warning: Any unauthorized changes or modifications to this equipment void the user's authority to operate it.

Laser Safety

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. The set complies with the FCC-Rules, Part 15 and with 21 CFR 1040.10.

CAUTION: Visible and invisible laser radiation when open and interlock defeated. Do not stare into the beam. The beam is located inside, near the deck mechanism.

Special Information for Canadian Users

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications. (Canadian ICES-003)

Radio/TV Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1) Reorient or relocate the receiving antenna.
- 2) Increase the separation between the equipment and the receiver.
- 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4) Consult the dealer or an experienced radio/TV technician for help.

Note to Cable TV system installer:

This reminder is provided to call the Cable TV(CATV) system installer 's attention to Article 820-40 of the NEC (National Electrical Code) that provides guidelines for proper grounding and, in particular, specifies that the cableground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Copyright Protection

Unauthorized copying, broadcasting, public performance and lending of Discs are prohibited. 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.

Declaration of Conformity

Model Number: HDRW 720/17
Trade Name: Philips
Responsible Party: Philips Consumer Electronics N.A.
P.O. Box 14810, Knoxville, TN 37914-1810 1-800-531-0039

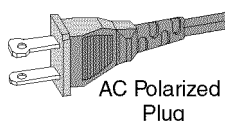
IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.


9. Do not defeat the safety purpose

of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.

A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.

12.  Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. **Battery usage CAUTION** - To prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:

- Install all batteries correctly, + and - as marked on the unit.
- Do not mix batteries (old and new or carbon and alkaline, etc.).
- Remove batteries when the unit is not used for a longtime.

16. Apparatus shall not be exposed to dripping or splashing.

17. Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).

18. This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

EL 6475-E005:04/01

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Overview of functions



Functioning of the device

Your Philips DVD/HDD recorder mainly consists of the following components:

HDD recorder

For recording in a temporary storage on the HDD (Time shift Buffer)

As soon as you turn on the DVD/HDD recorder, it automatically records the current TV channel selected on the DVD/HDD recorder in this temporary storage. As a result, you can 'rewind' to a scene (◀) or watch a still picture (PAUSE II), while the current TV show is still being recorded.

Recordings in the time shift buffer are only temporarily available (factory settings: 3 hours).

For storing recordings on the HDD

You can mark recordings in the time shift buffer for storage on the HDD using **REC/OTR ●**.

These recordings will be transferred to the HDD when you switch off the device using **STANDBY ⏻** or when the time period of the time shift buffer (e.g. 3 hours) expires.

DVD Recorder

For archiving (copying) HDD recordings on a DVD+RW/+R

Recordings on the HDD can be selected in a title overview screen (Media Browser) and then copied (archived) on a DVD+RW/+R.

TV tuner

For recordings independently from your TV set

You can use your DVD/HDD recorder as a TV tuner, allowing you the comfort of pausing a running TV show and continue watching it later. You can make recordings on the HDD without having to turn on the TV set.

DVD/CD/MP3 player

For playing back recorded DVDs, CDs , CD-RW/Rs

You can use this device to play back DVD+R/RWs, DVD-R/RWs, (S)Video CDs(CD-RW/R), Audio CDs(CD-RW/R), MP3 CDs(CD-RW/R) of the respective standard.

The remote control



- REC/OTR** ● Record the current TV show on the HDD, mark recordings in the time shift buffer to be stored on HDD.
Hold button down to start the recording from now. (Mark the recording from the beginning of the actual position in the Time Shift Buffer).
- STANDBY** ☰ To switch set on or off, interrupt menu function.
A programmed recording (TIMER) or an archiving process will be continued until the end, and the device will then be switched off.
- CAM** Switch to 'Camera mode' (recording directly on the HDD and not through time shift buffer), switch to input jacks (' **S-VIDEO (CAM1)** / **VIDEO (CAM1)** ', ' **DV IN (CAM2)** ').
- TV/HDD** Switches the antenna signal directly to the TV set. This button lets you switch between the DVD recorder and an antenna signal if you have connected your DVD recorder to your TV set with only an antenna cable.
- RETURN** Return to previous menu on a video CD (VCD). This also works with some DVD discs.
Moreover, you can jump back to the previous scene of the time shift buffer or to playback from the HDD. You can switch to the picture of the actual running TV show with the **TUNER** button.
- TV VOLUME +** Increase/reduce TV volume. For more details read the chapter 'Additional TV functions'
- TV VOLUME -**
- EDIT** Call up/Cancel the edit menu.
Call up/Cancel the menu for editing titles during playback.
- TIMER** ⌚ To make a **TIMER** programming with/without VCR Plus+® system or to alter/clear programmed recordings.
- SELECT** Select function/value.
You can mark several titles in the media browser.
Switch on repeat play during playback from a disc.
- TUNER** This button lets you switch to the picture of the internal tuner (TV channel).
During play back from the Time Shift Buffer, you can jump to the actual TV show (live) of the selected TV channel.
- SYSTEM MENU** Call up/Cancel the system menu.
Depending on the operating mode from which you press this button:
•) DVD system menu: Press **DISC MENU** first.
•) HDD system menu: Press **TUNER** first.
- DISC MENU** For displaying the DVD menu or the index screen overview.
- INFO** For displaying additional information on the screen or the time shift buffer during playback/recording on the HDD .
Call up additional information in the TV Guide On Screen™ system.
- RED** Red function button
- YELLOW** Yellow function button
- BLUE** Blue function button
- GREEN** Green function button
- BROWSER HDD** Call up/cancel the overview of HDD recordings (media browser).
- TV GUIDE** Call up/Cancel the TV Guide On Screen™ System

Overview of functions



▲ ▼ Cursor buttons up, down in the menus.
Previous or next position in the time shift buffer during playback from HDD.

◀ ▶ Cursor buttons left, right in the menus.
Previous or next position during playback of a title from the HDD (media browser or time shift buffer). If you hold down this button you can faster browse through the recordings. The speed will increase automatically.

OK Confirming of functions
Starting the playback from the beginning in the 'Media Browser'.

STOP ■ Stop playback
Hold down the button to open and close the disc tray.

PAUSE II If this button is pressed during playback, the DVD recorder switches to pause. You will see a still picture. If this button is pressed during recording in the 'Camera mode', the DVD recorder switches to pause and inserts a chapter marker.

PLAY ► Play back a recorded disc.

CHANNEL + Next channel

CHANNEL - Previous channel

JUMP BACK To jump back a certain time period that can be changed in the settings of the HDD.

◀◀ Briefly press the button during playback: Previous chapter or previous title
Hold down the button: Search backwards
Hold down the button during the still picture: slow motion backwards

▶▶ Briefly press the button during playback: Next chapter or next title
Hold down the button: Search forwards
Hold down the button during the still picture: slow motion forward

JUMP FWD To jump forward by a certain time period that can be changed in the settings of the HDD.

0..9 For entering numbers or characters at the corresponding entry fields.

T/C Switching between title and chapter for selection using ◀◀ , ▶▶ .
If 'INFO' appears in the display, the index menu from a recorded disc will be shown or an introductory film will be played. In this case, this function is not available.

DISC MANAGER Call up/Cancel the disc manager (DM).



Additional TV functions

With the enclosed multicode remote control you can control the main functions of your TV set. To do this, you must first enter a code number that corresponds to the make of your TV set. You will find a summary of all available remote control commands on the last page of this manual. How to enter this code number you will read in the chapter 'Using your DVD-Recorder remote control with your TV set'.

TV VOLUME + Increase TV volume

TV VOLUME - Reduce TV volume

TV/MUTE ✖ Switch TV sound on/off

For the following functions you need to hold down the **•TV** button (on the left side) and then select the function you need with the appropriate button.

STANDBY ⏻ Switch on/off TV set

0..9 Number buttons 0 - 9

CHANNEL + To select a higher channel number

CHANNEL - To select a lower channel number

Additional TV functions for Philips TV-sets if supported from the TV. You need to hold down the **•TV** button (on the left side).

T/C switch Teletext (TXT) on/off

TIMER ⌚ Clock display on the screen on/off

RETURN To return to the previous selected TV program/ previous menu step

SYSTEM MENU Call up the System Menu from the TV

▼ , ▲ In theTV menus cursor up/down

◀ , ▶ In the TV menus cursor left/right

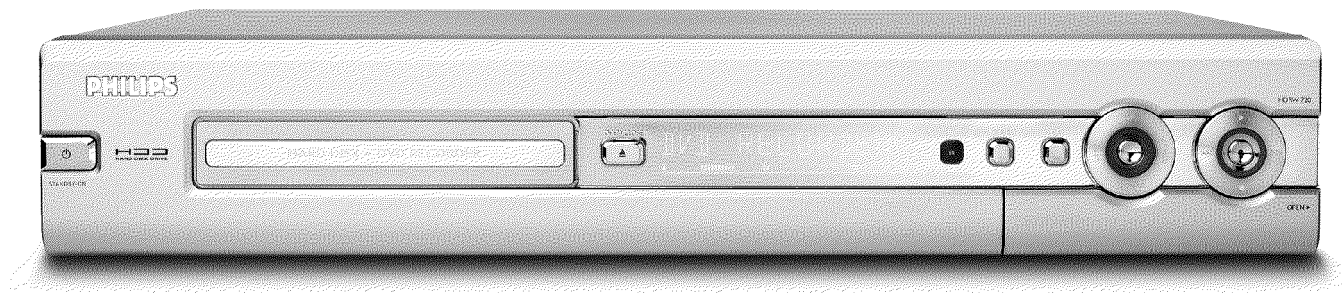
OK Confirm functions or settings

RED , GREEN , Colour buttons for special functions

YELLOW, BLUE

TUNER Switching the TV from the external jacks to the internal tuner.


Overview of functions



Front of the device

STANDBY-ON  : To switch device off / on, interrupt a function.

TRAY LED : Red light around the disc tray indicates recording on a DVD+RW/+R.

OPEN/CLOSE  : Open/close disc tray.

GUIDE : Call up/Cancel the TV Guide On Screen™ System. When the TV Guide On Screen system is active, this button lights up white.

OK : To confirm the entry/function.

HDD : Call up the media browser (overview of recordings on the HDD).
During a recording on the HDD this button lights up blue.

UP DOWN : Cursor buttons up, down in the menus. **UP**, **DOWN** : Higher/lower channel
Moves cursor up/down in the TV Guide On Screen™ system
Previous or next title in the time shift buffer during playback from HDD.

LEFT RIGHT : Cursor buttons left, right in the menus.
Previous or next position during playback of a title from the HDD (media browser or time shift buffer). **LEFT**, **RIGHT** : In the TV Guide On Screen™ System: Cursor left/right

● : Record button
Stores the current TV show on the HDD, mark recordings in the time shift buffer to be stored on HDD.
Red light around the **●** button indicates:
•) a recording on a DVD+RW/+R (archiving of titles)
•) storing of a recording(s) on the HDD.

▶ : Play button
Play back a recorded disc or a title on the HDD
In the TV Guide On Screen™ System: OK-button.

◀◀ : select previous title/search backwards

▶▶ : select next title/search forwards

■ : Stop button
Interrupt playback/recording (Cameramode)

Behind the flap at the right-hand corner on the front

S-VIDEO (CAM1) : Connection of SVHS/Hi8 camcorders or SVHS/Hi8 video recorders (channel number 'CAM1')

Yellow jack

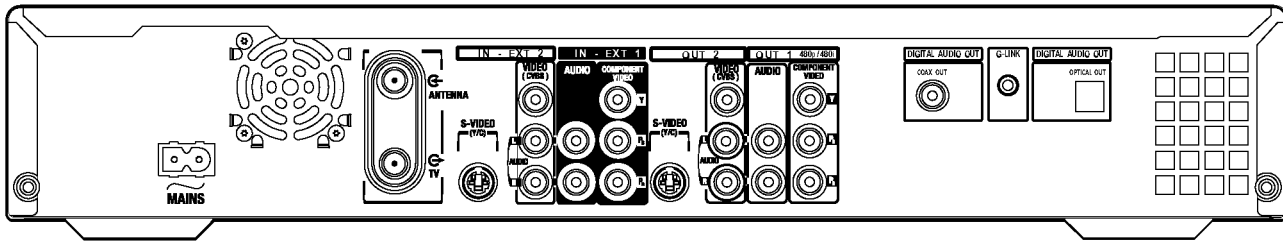
VIDEO (CAM1) : Video input jack: Connection of camcorders or video recorders (channel number 'CAM1')

White/red jack

L AUDIO R (CAM1) : Audio input jack left/right :
Connection of camcorders or video recorders (channel number 'CAM1')

DV IN (CAM2) : digital video input (DV format only), IEEE 1394, FireWire to connecting a digital camcorder or other suitable device (program number 'CAM2').

*Switching between the jacks VIDEO (CAM1), S-VIDEO (CAM1) is done automatically. If a signal is available at both jacks at the same time, the signal at the S-VIDEO (CAM1) jack has priority.
If you change the jack (unplug), you must re-select the jack. (Button CHANNEL - and then CHANNEL +)*



Back of the device

~ **MAINS** Connection to the household AC-outlet (110V/60Hz)

ANTENNA IN Connection of the antenna

TV OUT Connection of the antenna cable to the TV set

Input jacks (IN-EXT2)

S-VIDEO (Y/C)-EXT2 S-Video input: Connection of an additional device (channel number '**EXT2**'). Switching between the **S-VIDEO (Y/C)-EXT2** and **VIDEO (CVBS)-EXT2** jacks takes place automatically.

VIDEO (CVBS)-EXT2 Video input (yellow jack): Connection of an additional device (channel number '**EXT2**')

AUDIO L/R (IN-EXT 2) Analog audio input (red/white jack) underneath the **VIDEO (CVBS)-EXT2** jack. Audio for the **VIDEO (CVBS)-EXT2** jack: Connection of an additional device (channel number '**EXT2**')

Input jacks (IN-EXT1)

AUDIO L/R (IN-EXT 1) Analog audio input (red/white jack) next to the **COMPONENT VIDEO-EXT1** jack: Connection of an additional device. Audio input for Component Video (channel number '**EXT1**')

COMPONENT VIDEO-EXT1 Component Video input (red/blue/green jack): Connection of an additional device with Component Video output (channel number '**EXT1**')

Output jacks (OUT-2)

S-VIDEO (Y/C)-OUT2
Connection of an S-Video compatible TV set

VIDEO (CVBS)-OUT2
Yellow cinch jack for the connection of a TV set with video input (CVBS, Composite Video).

AUDIO L/R (OUT 2)

White/red cinch jack for the connection of a TV set with audio input jacks or an additional device.

Output jacks (OUT-1 480p/480i)

AUDIO L/R (OUT 1) Analog audio output (red/white jack): Connection of an additional device. Audio output for Component Video/Progressive Scan

COMPONENT VIDEO-OUT1 Component Video output (red/blue/green jack): Connection of an additional device with Component Video input (Interlaced/Progressive Scan)

Output jacks (DIGITAL AUDIO OUT)

COAX OUT
For the connection of a digital audio device using a coaxial cable (cinch cable).

OPTICAL OUT
For the connection of a digital audio device using an optical cable (Toslink).

Output jack (G-LINK™)

G-LINK Connection of the supplied IR Blaster (IR extender) for a cable box.

Introduction

Welcome to the growing family of owners of PHILIPS equipment. Thank you for buying a HDRW 720/17 .



Time-shift TV viewing is possible with the hard disk drive (HDD) in your DVD-Recorder./Hard Disk By storing the recording in a time shift buffer, you can 'rewind' to a scene you missed while the current TV show is still being recorded.

Recordings in the time shift buffer will be automatically deleted e.g. after 3 hours if the period of the time shift buffer is set to 3 hours (factory setting).

Moreover, you can play back a DVD disc or a recorded title from the HDD while the current TV channel is being recorded in the background.

You can store recordings from the time shift buffer on the built-in HDD and transfer (archive) them later on a DVD+RW/+R disc.

Furthermore your Philips DVD Recorder /Hard Disk is a device for recording on DVD+RW/+R Discs and for playing digital video discs see next chapter. In the rest of the user manual the DVD Recorder/Hard Disk will be mentioned as DVD-Recorder.

Please take the time to read this operating manual before using your DVD Recorder. It contains important information on how to set up and operate the device.

We hope you will enjoy your new DVD Recorder / Hard Disk, your Philips team!

*If you have any problems operating the device, please read the section entitled 'Before you call an engineer'. If this doesn't help you to resolve the problem, please call the **customer support service** for your country. You can also visit the **website 'http://www.p4c.philips.com'**.*

Discs you can use

The following discs can be used in your DVD recorder for playback and recording:

Recording and playback



DVD+RW (Digital Versatile Disc + rewriteable) uses phase change media, the same technology on which rewritable CDs are based. A high-performance laser is used to change the reflective properties of the recording layer; this process can be repeated more than a thousand times.



DVD+R (Digital Versatile Disc + recordable) Unlike a DVD+RW disc, this disc can only be written to once. If it is not finalized after a recording, further recordings can be added to it. Old recordings can be later deleted but they can no longer be overwritten. The deleted recordings (titles) are marked '**Deleted title**'. Before this disc can be played in a DVD player, it must be finalized in the DVD recorder. Once this process is complete, no further recordings can be added.

Playback only



DVD Video (Digital Versatile Disc) is a storage medium that combines the convenience of the compact disc with the latest digital video technology. DVD video uses modern MPEG2 data compression technology that enables an entire feature film to be stored on a single five-inch disc.



DVD-R(DVD-Recordable) These discs can only be played back if the recording was made in video mode and the recording was finalized.



DVD-RW (DVD-Rewritable) These discs can only be played back if the recording was made in video mode and the recording was finalized.



Audio CD (Compact Disc Digital Audio)



Super Audio CD (plays only the CD layer of a hybrid SACD disc)



Video CD (Format 1.0, 1.1, 2.0)



Super Video CD



CD-R (CD-Recordable) with Audio/MP3 content



CD-RW (CD-Rewritable) with Audio/MP3 content

Regional code



DVDs must be marked 'ALL' for all regions or '1' for region 1 to work in this machine. If the DVD is marked with a different region, it cannot be played in this DVD recorder.



The number within the globe represents the region of the world.

Region 1 covers:

United States of America, Canada, North America, Bermuda, U.S. Virgin Islands and smaller regions around Australia.

Technical data

You will find more technical data on the last cover page.

Voltage: 110-130V/60Hz

Power consumption: 27W

Power consumption (standby): less than 3W (clock display off)

Measurements in cm (W/H/D): 43.5/7.6/33.5 (Disc tray closed),
47.2 cm (disc tray open)

Weight without packaging approx.: 4.0kg

Power outage/no power: Channel and timer information remain saved for approx. 1 year, the time is saved for approx. 12 hours. If there is power outage during a recording on the HDD (time shift buffer) at most the last 5 minutes before the power outage will be lost.

Operating position: maximum 10 degree inclination in all directions

Ambient temperature: 15 °C - 35 °C

Humidity: 25% - 75%

Accessories

Operating instructions
Guarantee booklet
Remote control and batteries
Antenna cable
AC-outlet (mains) cable

Component Video cable (Cinch cable with red/blue/green connectors)

Audio cable (Cinch cable with red/white connectors)

IR blaster

Important

Caution! Visible and invisible laser radiation. If the cover is open, do not look at the beam.

Because of the risk of eye injuries, only qualified service engineers should open the device and carry out maintenance or repair work.



LAZER

Typ: Semiconductor lasers InGaAlP (DVD), AlGaAs (CD)

Wavelength: 660nm (DVD), 780nm (CD)

Output power (outside the lens): 20mW (DVD+RW write),
0.8mW (DVD read), 0.3mW (CD read).

Beam divergence: 82 degrees (DVD), 54 degrees (CD)

Danger. High voltage! Do not open. Do not insert objects into the ventilation slots and fan openings! You run the risk of getting an electric shock.

The device does not contain any user-serviceable parts. Please leave all maintenance work to qualified personnel.

There are some components in the DVD recorder that keep running as long as the recorder is connected to AC-outlet. To switch off the DVD recorder completely, you must unplug it from the AC-outlet.

If you disconnect the DVD recorder from the AC-outlet, make sure to take the plug out of the wall jack and not just remove the connector from the **~ MAINS** jack at the back of the unit. Children playing near the device could suffer injuries at the free end of the cable.

Make sure that air can circulate freely through the ventilation slots on the side and the fan opening at the back of the device to avoid overheating. The device should be placed on a firm surface.


Do not insert any objects into the openings or ventilation slots of the device.


These operating instructions have been printed on non-polluting paper.


Please dispose of old batteries safely.


Please take the packaging to your local recycling centre.


Introduction


 This electronic equipment contains several materials that can be recycled. If you are disposing of an old device, please take it to a recycling centre.

 Do not switch on the device **immediately after transport** from a cold to a warm room or vice versa, or under conditions of extreme humidity.
Wait at least **three hours** after transporting the device. The DVD recorder needs this time to acclimate to its new environment (temperature, relative humidity, etc.).

 When installing the recorder in a cupboard, ensure there is a gap of approximately 5 cm (2 inch) around the recorder to enable air to circulate freely and prevent overheating.


 Make sure that no objects or liquids enter into the DVD recorder. Do not place vases or the like on the DVD recorder. If you spill liquid into the recorder, immediately disconnect it from the power supply and call after-sales service for advice.

 Keep the DVD recorder away from radiators and other heat sources and protect it from direct sunlight.

 Do not place any combustible objects on the device (candles, etc.).

Important instructions for the HDD

The built-in HDD of this DVD recorder is sensitive to shocks, temperature fluctuations, and vibrations.
Please observe the following precautions:

- Avoid shocks or vibrations
- Do not cover the ventilation openings of the cooling fan
- Do not operate the device under high temperatures, and do not expose it to temperature fluctuations
- Do not pull the mains plug from the wall outlet before the device is switched off using **STANDBY** .
- Before bringing the device to a workshop for repair, store all important data of the HDD on a DVD+RW/+R. See 'The archive function'.
The workshop will not assume any liability for the loss of the stored data.

- **Philips will not assume any liability for damage or loss of stored data.**

Symbols used in these operating instructions

The following symbols will facilitate the use of these operating instructions.

- ① Step(s) for carrying out an operation.
 - Another possible operating step that is not absolutely necessary.
 - Reaction of the device
- When only one operation step is necessary

You will find additional information in this section.

Cleaning the discs

Some malfunctions (frozen or distorted picture and broken sound for example) may be due to dirt on the disc. To avoid such problems, you should clean your discs regularly.

- Dirty discs should be cleaned with a soft cloth. Always wipe from the middle to the edge.
- Do not use any solvents such as benzene, thinners, commercially available cleaning agents, or antistatic sprays designed for vinyl records.

Can I use a CD lens cleaner in the DVD recorder?

Since the optical unit (laser) of the DVD recorder operates at a higher power level than the ones in normal DVD and CD players, such CD lens cleaner discs may actually damage the optical unit (laser).

Therefore, refrain from using a CD lens cleaner disc!

Special functions of your DVD recorder

Your Philips DVD recorder has a number of special functions to make it easier to use and to enhance your enjoyment.

Multibrand TV control



upgradeable



You can operate the main functions on your television using your DVD-Recorder recorder remote control, even if your television is not a Philips.

You can upgrade the software of your DVD-Recorder with a CD-ROM.

On the web site <http://www.p4c.philips.com> under the model number 'HDRW 720/17' you will find the data and the upgrade information.



This connector is also known as a 'FireWire' or 'IEEE 1394'. This connector is used to transmit wide digital broadband signals that are used for digital video camcorders. Audio and video signals are transmitted using a cable. In addition to DV and Hi8 camcorders, PCs with digital video output can also be connected to the digital input.

This screen tells you what's on the disc. Each index screen represents a recording. On the right hand side of the screen you can also see a disc indicator that shows the position and length of the current recording on the disc in a graphic format.



This function enables you to simply delete unwanted scenes. The relevant scenes are marked and skipped as required. If you store (archive) such titles on a DVD+RW/+R you can decide if you want to store the original title (with the hidden scenes) or the edited title (without the hidden scenes).



MP3 CDs can be played on this machine.

MP3 files are highly compressed music files. The data is compressed to 1/10 of the volume of the original audio material using a special process. This means that 10 hours of music can be stored on a single CD.



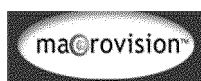
The Philips DVD recorder can play back pre-recorded DVDs and CDs. DVDs recorded using this DVD recorder can be played back on current and future DVD players.



Dolby Digital is a standard developed by Dolby Laboratories for transmitting from 1 to 5 full-range channels as well as a low frequency (.1) channel for a total of 5.1 discrete channels. The loudspeakers are arranged front left, front middle, front right, rear left and rear right. This system is currently the most common system and is used in cinemas.

With this DVD recorder each soundtrack in 2-channel Dolby Digital is recorded onto a DVD+RW/+R.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" 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.



This DVD Recorder is equipped with Directional Correlational Deinterlacing, known as DCDi™. DCDi was developed by Faroudja Laboratories for ultra-high-end home theater equipment to eliminate the jagged edges that appear when standard interlaced video is viewed on Progressive Scan displays. This patented technology identifies edges at any angle in moving video images and interpolates along the edge, pixel-by-pixel, to produce smooth natural looking images.

DCDi® by Faroudja is a registered trademark of Genesis Microchip Inc.



Simple programming system for DVD recorders. Simply enter the programming number associated with your television program. You will find this number in your favorite listings magazine.

Introduction



The **TV Guide On Screen™ System** gives you an on-screen listing of what's on TV. It also lets you program your DVD recorder by selecting the show you want to record from the list on your screen.

You simply enter your local post code during set up and you can see the next 48 hours or what's on right now or even what's on in a favorite category such as sports or movies. Click with your remote on the show you'd like to see or schedule. No more hassles programming your DVD recorder! The TV Guide On Screen™ information is sent together with your TV signal so there's nothing to load or buy. The service is free!

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Enter the serial number here. You will need it for service queries or if your machine is stolen. The serial number (PROD. NO.) is printed on the type plate at the back or bottom.

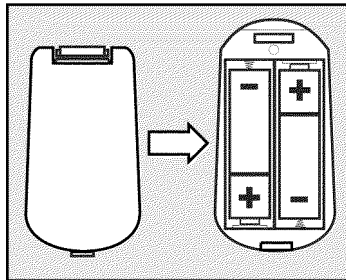


Connecting the DVD recorder

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 - described in the following section.

- 1 Take the remote control and the enclosed batteries (2 batteries).



- 2 Open the battery compartment, insert the batteries as shown and then close the battery compartment. Match the polarities (+ and -) on the batteries with the diagram on the remote.


The remote control is now ready to use.
Its range is approximately 5 to 10 meters.

'Aim' correctly

Aim the remote control at the DVD recorder and not at the TV set.

Using your DVD-Recorder remote control with your TV set

With the enclosed multicode remote control you can control the main functions of your TV set. To do this, you must first enter a code number that corresponds to the make of your TV set. You will find a summary of all available remote control codes on the last page of this manual.

- 1 Hold down the **STANDBY**  button.
- 2 Using the number buttons **0..9**, enter the code number that corresponds to the make (manufacturer) of your TV set.
- 3 When you have entered the code number check, that the TV set will respond to the **TV VOLUME -** or **TV VOLUME +** buttons.



*** My TV set will not react**

- ✓ Also try to enter the other code numbers or that of other manufacturers.
- ✓ In some cases, it is possible that your TV set will not react to the selected code numbers. If this is the case, you unfortunately cannot use this function.


- 4 You can select one of the following functions:

TV VOLUME + increase the TV volume
TV VOLUME - decrease the TV volume

For the following functions you need to hold down the **TV** button (on the left side) and then select the function you need with the appropriate button.

TV/MUTE  switch off sound
STANDBY  switch off the TV set
CHANNEL + next channel
CHANNEL - previous channel

Additionally on Philips TV-sets:

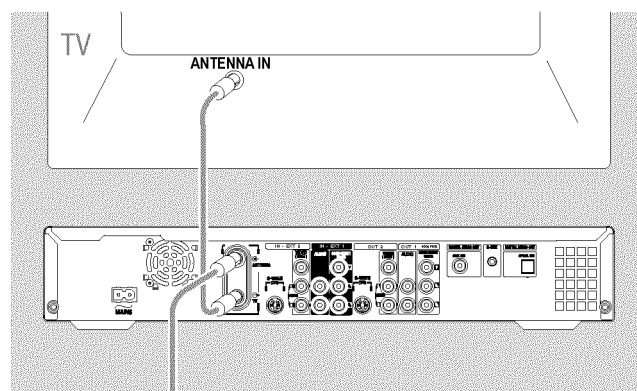
T/C switch Teletext (TXT) on/off
TIMER  Clock display on the screen on/off
RETURN To return to the previous menu step
SYSTEM MENU Call up the System Menu from the TV
▼, ▲ In the menu cursor up/down
◀, ▶ In the menu cursor left/right
OK Confirm functions or settings
Color buttons Buttons for special functions
TUNER Switching the TV from the external jacks to the internal tuner (TV channels).

Connecting to the antenna

To receive TV programs you have to connect the DVD-recorder to the antenna or the cable network.

- 1 Switch off your TV set.
- 2 Remove the antenna or cable TV signal from your TV. Insert it into the **ANTENNA IN** jack at the back of the DVD Recorder.
- 3 Insert one end of the supplied antenna cable into the **TV OUT** jack at the back of the DVD Recorder and the other end into the antenna input jack at the back of the TV.

The TV's Antenna In jack may be labeled ANT IN, RF IN, 75 ohm, etc. Check your TV instructions for details.



Connecting the DVD recorder

Connecting to the TV

Choose from the following connections:

Connection with Component-Video- (Y Pb Pr) cable

Connection with S-vidocable

Connection with Video (CVBS) cable

Connection with the antenna cable only

Connection with Component-Video- (Y Pb Pr) cable

Component Video is the highest quality system for transmitting video by splitting the video signal into the Y (brightness), U and V (red minus brightness, blue minus brightness) components. The signals are sent over separate lines. The plugs for these cables and the corresponding jacks are usually red, green, and blue.

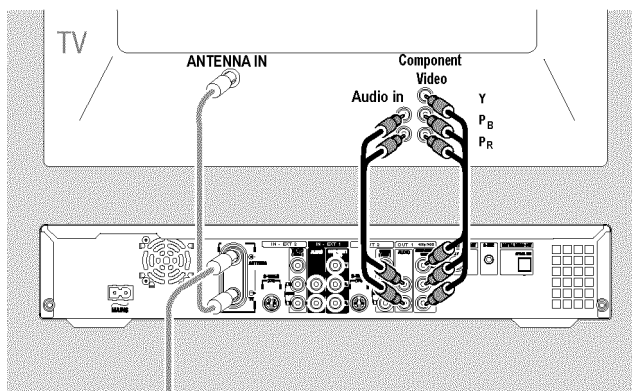
In addition, the signal can be 'interlaced' or use 'progressive scan.'

Interlaced

The regular video/TV signal is interlaced, i.e. the even and odd lines are formed as half pictures in an alternate fashion.

Progressive scan

With progressive scan, each picture is structured (approx. 50/60 times per second depending on the TV system) as a complete picture, i.e. the even and odd lines are formed together. Disruptive picture flickering is avoided as is the case with 100 Hz TV devices.



- 1 Use the Component Video (Y Pb Pr) cable and connect one end to the red, blue, green **COMPONENT VIDEO-OUT1** jacks at the back of the DVD Recorder and the other end to the Component Video In jacks of the TV.
- 2 If your TV set is equipped with a 'progressive scan' jack, please use this jack. (Usually called 'Video In Y Pb Pr'. Please see your TV's instruction manual).

Please note the color order

The colors of the jacks on the DVD Recorder must match those on the TV (red-red/blue-blue/green-green). If they are not matched properly, this could cause the color of the picture to be reversed or there could be no picture at all.

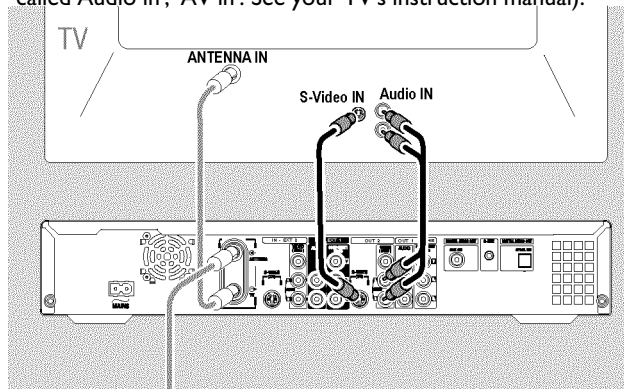
- 3 Use an audio cable and plug one end into the **AUDIO L/R (OUT 1)** jack at the back of the DVD Recorder (next to **COMPONENT VIDEO-OUT1**) and the other into the red/white Audio In jacks of the TV (usually called Audio in, 'AV in'. Please see your TV's instruction manual).
- Read the next chapter 'Connecting additional devices' on how to connect additional devices (satellite receivers, videorecorders,...) to the input-/output jacks.

Then, read the chapter on 'Connecting to the AC-outlet.'

Connecting with a S-Video (Y/C) cable

This connecting cable, also known as the SVHS cable, is used to transmit the brightness signal (Y signal) and color signal (C signal) separately. This mini DIN jack/plug is also called a Hosiden jack/plug.

- 1 Use a S-Video (SVHS) cable and plug one end into the **S-VIDEO (Y/C)-OUT2** jack at the back of the DVD Recorder and the other end into the S-Video (SVHS) In jack of the TV (usually called 'S-Video in' or 'SVHS in'. See your TV's instruction manual).
- 2 Use an audio (cinch) cable and plug one end into the red/white cinch jack **AUDIO L/R (OUT 2)** at the back of the DVD Recorder (next to **S-VIDEO (Y/C)-OUT2**) and the other into the corresponding red/white audio input jack of the TV (usually called Audio in, 'AV in'. See your TV's instruction manual).



- Read the next chapter 'Connecting additional devices' on how to connect additional devices (satellite receivers, videorecorders,...) to the input-/output jacks.

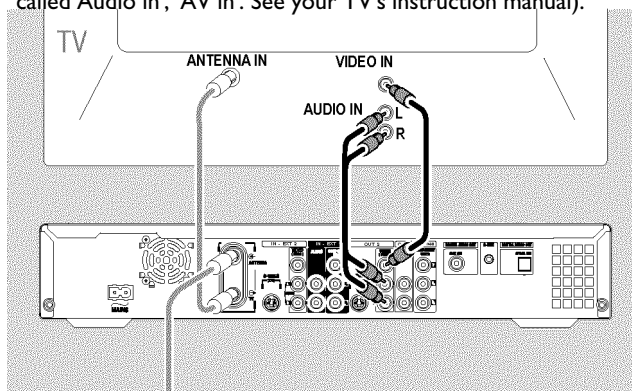
Then, read the chapter on 'Connecting to the AC-outlet.'

Connecting the DVD recorder

Connecting with Video (CVBS) cable

This cable, usually featuring yellow cinch plugs, is used for transmitting the Composite Video Baseband Signal (CVBS). In this method of transmission the color signal and the brightness signal are transmitted on the same cable. Under certain circumstances, this may lead to problems with the picture, such as 'Moiré' patterns.

- 1 Use a video (CVBS) cable and plug one end into the yellow jack **VIDEO (CVBS)-OUT2** at the back of the DVD Recorder and the other end into the Video In jack (usually yellow) of the TV (usually called Video in or AV in. See your TV's instruction manual).
- 2 Use an audio (cinch) cable and plug one end into the red/white cinch jack **AUDIO L/R (OUT 2)** at the back of the DVD Recorder (under to **VIDEO (CVBS)-EXT2**) and the other into the corresponding red/white audio input jack of the TV (usually called Audio in, 'AV in'. See your TV's instruction manual).



- Read the next chapter 'Connecting additional devices' on how to connect additional devices (satellite receivers, videorecorders,...) to the input-/output jacks.

Then, read the chapter on 'Connecting to the AC-outlet'.

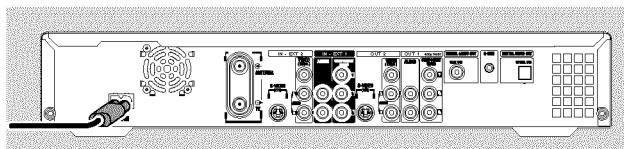
Connection with the antenna cable only

If your TV has only a single antenna input jack and does not have any audio/video jacks you can use the connected antenna cable. Please observe that you must adjust the TV to the DVD-Recorder (channel 3 or 4).

Connecting to the AC-outlet

Always check if the local mains voltage matches the voltage range printed on the type plate at the back or bottom of the DVD-recorder. If not consult your dealer or the customer support from your country.

- 1 Switch on the TV set.
- 2 Connect the mains jack \sim **MAINS** at the back of the DVD Recorder with the power supply using the supplied power cable.



→ The most important features of the DVD recorder will appear in scrolling text on the display.

After the first installation is completed this function will be switched off.

Then, read the paragraph on 'Initial installation' in 'Installing your DVD recorder'.

Connecting additional devices

Connecting a video recorder, DVD player.

You can also connect a video recorder or a DVD player to the input jacks.

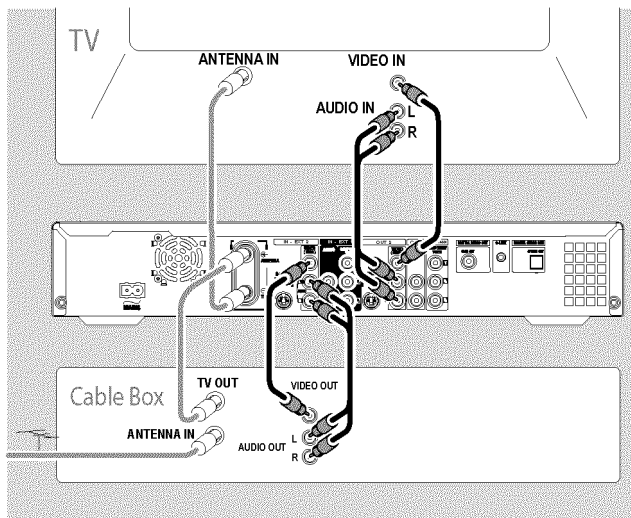
- Connect the DVD-Recorder **directly** with your TV-set (Cable from the output jacks directly to the TV set). If there is a video recorder or another device in between, there can be distortions in the TV pictures from the 'copy protection system'.
- If you have an SVHS video recorder you should use the **S-VIDEO (Y/C)-EXT2** jack and the **AUDIO L/R (IN-EXT 2)** jacks.
- You can also use the front jacks. For more information read the chapter 'Recording on the HDD'.

Connecting a cable box with cinch or S-video cable

You can connect a cable box to the **S-VIDEO (Y/C)-EXT2** or **VIDEO (CVBS)-EXT2** input jacks and the **AUDIO L/R (IN-EXT 2)** audio jacks.

Switching between jacks **S-VIDEO (Y/C)-EXT2** and **VIDEO (CVBS)-EXT2** is done automatically. If a signal is available at both jacks at the same time, the signal at the **S-VIDEO (Y/C)-EXT2** jack has priority.

The antenna cable should also be connected to the cable box and the DVD recorder as shown.

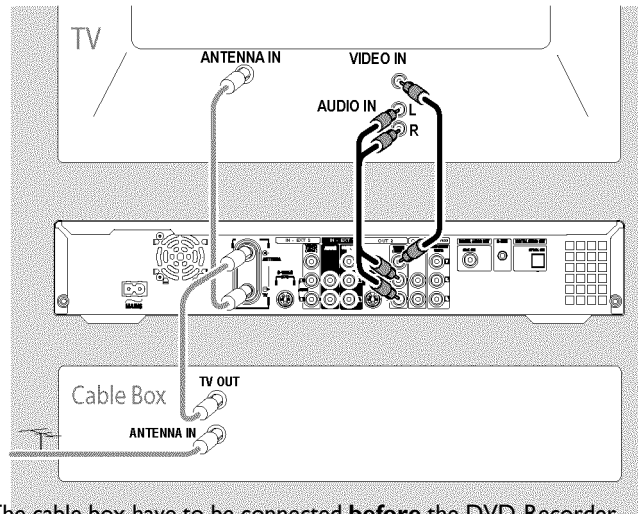


Connect the DVD-Recorder **directly** with your TV-set (Cable from the output jacks **S-VIDEO (Y/C)-OUT2** or **VIDEO (CVBS)-OUT2** directly to the TV set). If there is a video recorder or another device in between, there can be distortions in the TV pictures from the 'copy protection system'.

Connecting a cable box only via antenna cable

If you want to connect a cable box only via antenna cable, please observe the following:

The DVD-Recorder have to be directly connected to the TV set. If there are other devices (video recorder, decoder, satellite receiver,...) in between, there can be distortions in the TV pictures from the 'copy protection system'.



The cable box have to be connected **before** the DVD-Recorder (cable box - DVD-Recorder - TV set). On the jack **TV OUT** only the TV have to be connected.

- If there is interference in the picture when the cable TV box is switched on, a TV broadcaster may be transmitting on the same channel or a channel very close to that of the cable TV box. (e.g.: TV broadcaster on channel 3, cable TV box also on channel 3). In this case, change the channel of the cable TV box. You must also store this channel on the DVD recorder to be able to record TV programs from the cable TV box.

The antenna cable should also be connected to the cable box and the DVD-Recorder as shown.

Switch on the additional device during the installation of the DVD recorder. During the automatic channel search, the channel on which the additional device is transmitting will be stored as a TV channel.

Connecting additional devices

Connecting a camcorder to the front jacks

To copy camcorder recordings, you can use the front jacks. These jacks are behind the door in the lower right corner of the front panel.

Recordings from the front jacks were stored on the HDD to make editing easy. Then you can transfer (archive) them on a DVD+RW/+R.

Digital (DV) input jack

If you are using a Digital Video or Digital 8 camcorder, connect the **DV IN (CAM2) IN** jack of the DVD Recorder to the corresponding DV OUT jack on the camcorder.

Choose 'EPM2' as a program number for this input.

When films are transferred, the original recording date and time are stored as DVD subtitles.

During playback, you can display this data on the TV screen by using the 'Subpicture' function.

S-video input jack

If you are using a Hi8 or S-VHS(C) camcorder, connect the **S-VIDEO (CAM1)** in jack of the DVD Recorder to the corresponding S-video out jack on the camcorder.

You must also connect the **L AUDIO R (CAM1)** in jacks of the DVD Recorder to the audio out jacks on the camcorder.

Choose 'EPM 1' as a program number for this input.

Video (CVBS) input jack

If your camcorder only uses a video output (Composite Video or CVBS), connect the **VIDEO (CAM1)** input of the DVD Recorder to the corresponding output jack on the camcorder.

You must also connect the **L AUDIO R (CAM1)** in jacks of the DVD Recorder to the audio out jacks on the camcorder.

Choose 'EPM 1' as a program number for this input.

Connecting audio devices to the analog audio jacks

There were two analog audio output jacks **AUDIO L/R (OUT 2)** (audio signal output left/right) and two audio input jacks **AUDIO L/R (IN-EXT 2)** (audio input left/right) on the back of the DVD Recorder.

These can be used to connect the following devices:

- **A receiver with Dolby Surround Pro Logic**
- **A receiver with two-channel analog stereo**

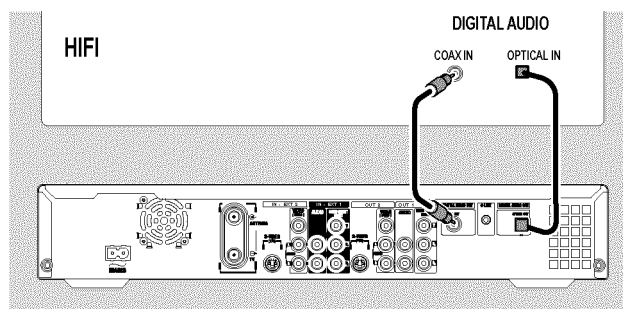
Can I use the 'Phono' input on my amplifier?

*This amplifier jack (input) should only be used for record players without a pre-amplifier. Do **not** use this input jack to connect the DVD Recorder.*

This could damage the DVD Recorder or the amplifier.

Connecting audio devices to the digital audio jacks

The back of the DVD Recorder features two digital audio output jacks **OPTICAL OUT** for an optical cable and **COAX OUT** for a coaxial cable (cinch cable).



It can be used to connect the following devices:

- **an Audio/Video receiver or an Audio/Video amplifier with a digital multi-channel sound decoder**
- **a receiver with two-channel digital stereo (PCM)**

Digital multi-channel sound

Digital multi-channel sound provides maximum sound quality. You will need a multi-channel A/V receiver or amplifier that supports at least one of the audio formats of the DVD recorder (MPEG2 and Dolby Digital).

Consult the owner's manual of your receiver to find out which audio formats it supports.

× **A loud distorted sound is coming from my speakers**

- ✓ *The receiver does not support the digital audio format of the DVD Recorder. The audio format of the inserted DVD is displayed in the display panel when another language is switched on. Playback using 6-channel digital surround sound is only possible when the receiver has a digital multi-channel sound decoder.*

Installation

Initial installation


After you have successfully connected the DVD Recorder and other devices to your TV (as described in the previous chapter), this chapter will help you start the initial installation. The DVD Recorder automatically seeks and stores all available TV channels.

Switching on additional devices

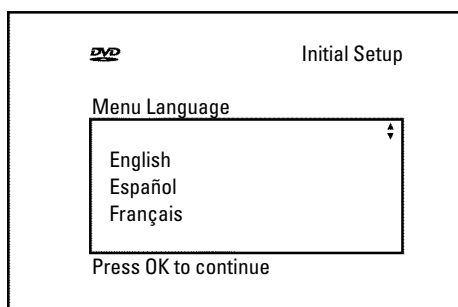
If you have connected additional devices (satellite receiver,...) via the antenna cable, switch them on now. The automatic channel search will recognize them and save them. Please observe that you must switch on a "test signal" for some additional devices.

No antenna connected

If you are only using the DVD Recorder as a playback device or you only have a satellite receiver connected, you still need to perform the initial installation. This is necessary so the basic settings can be saved correctly. After the initial installation is completed once, you can use the DVD Recorder normally.


1 Press **STANDBY-ON**  on the front of the DVD-recorder → 'PHILIPS' and then '15 TV CH?' will appear on the display.

→ If the connection was properly made and your TV was **automatically switched** to the channel number for the input jack, e.g. 'EXT', '0', 'AV', you will see the following picture:

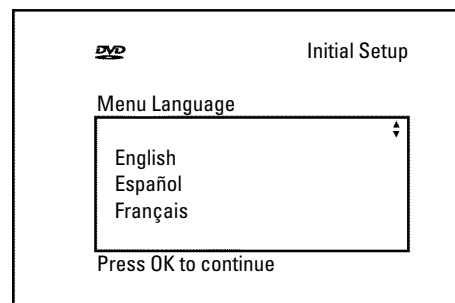


* **My screen is empty.**

- ✓ Depending on the initialisation procedure it can take some time before the picture appears. Please press **no button** in the meantime.
- ✓ If the TV set does not automatically switch to the program number of the input jack, select the corresponding program number on your TV set manually (see your TV's operating instructions).
- ✓ If your TV set is connected with the antenna cable only, you have to select on the TV the right TV channel for the DVD-Recorder. (channel 3 or 4)
- ✓ If you use the 'Progressive scan' connection, you must switch the 'Component Video output' of the DVD Recorder and, if necessary, the 'Component Video input' of the TV to 'Progressive scan'.

To switch the DVD-Recorder to Progressive scan, hold down  on the DVD Recorder while reconnecting the power cord. 'PRO' (progressive scan) will appear on the display.

2 Select the desired language for the on-screen menu by pressing ▼ or ▲ .



What is an on-screen menu?

All settings and/or functions are displayed on your TV screen in one of the available languages (English, French, or Spanish).

3 Confirm with **OK** .

4 Select the desired audio language using ▼ or ▲ .

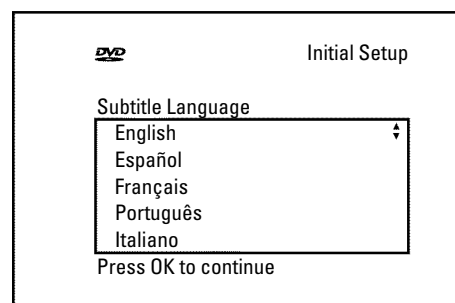


What is the audio language?

The DVD will play the sound in the language you select, provided this language is available on the disc. If it is not available on the disc the first language on the DVD will be used instead. The DVD Video Disc menu, if available, will also be displayed in the language you select.

5 Confirm with **OK** .

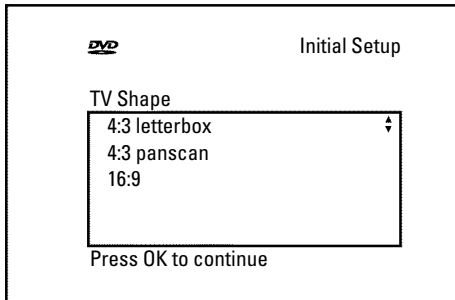
6 Select the desired language for the subtitles by pressing ▼ or ▲ .



What is the language of the subtitles?

The subtitles will be displayed in the language you select, provided this language is available on the disc. If it is not available on the disc the first language on the DVD will be used instead.

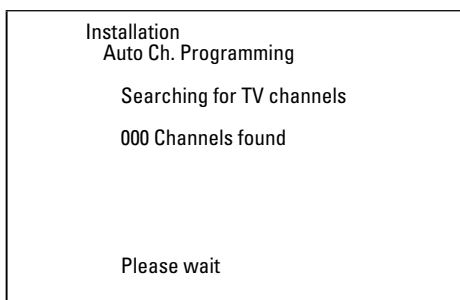
- 7 Confirm with **OK**.
- 8 Select the desired screen format position using **▼** or **▲**.



- **'4:3 letterbox'**
for a wide-screen display (theatrical format) with black bars at the top and bottom of the picture.
- **'4:3 panscan'**
for a full-height picture with the sides trimmed to fill your TV screen.
- **'16:9'**
for wide-screen TV (16:9) aspect ratio

- 9 Confirm with **OK**.
→ A screen appears with a message about the connection of the antenna. It can take some time before this screen appears. Please press **no button** in the meantime.

- 10 After you connect the antenna (or cable TV, satellite receiver, etc.) to the DVD Recorder, press **OK**.
Make sure the cable TV signal is connected securely to the Antenna jack on the rear of the DVD Recorder.
→ The automatic TV channel search starts.



- **'WAIT'** will appear on the display.
Wait until all available TV channels have been found. This can take several minutes.

* **No TV-Stations found yet?**

- ✓ Select a different TV channel on your TV set. Are you getting a picture for this channel?
If not, check the cable connection from the antenna (antenna jack) to the DVD recorder and to the TV set.
- ✓ Please have patience.
The DVD recorder searches the entire frequency range in order to find and save the largest possible number of TV channels.
- ✓ If you have not connected an antenna, go through all the basic settings right to the end and then, if you wish, start the automatic search (see 'Automatic TV channel search').
- * **The DVD Recorder finds very few/no channels during the search.**
- ✓ It is possible that the automatic switching between antenna/cable does not properly detect your TV signal. Read the section about how to switch manually.

→ When the automatic TV channel search is complete, **'Auto ch. search complete'** will appear on the TV screen along with the number of channels found.

- 11 To end, press **SYSTEM MENU**.
→ **'Dealer demo'** appears on the screen.
- Select **'No'** and confirm using **OK**. This setting is only for Dealers. You can watch the movie's also in the media browser.
The demo movie is stored for each language as a title in the 'Media Browser'. If you need additional capacity on the HDD you can delete the demo movie as you delete a title (recording). Read therefor the section 'Delete titles/recordings from the HDD' in the chapter 'Playback from the HDD'.

Switch off the Dealer Demo

If you have switched on the Demo Movie, repeat play back of the movie starts automatically after the installation of the TV Guide On Screen™ System.

To switch it off proceed as follows:

- Press **DISC MENU** and then **SYSTEM MENU** (call up the system menu from the disc).
- Select the symbol **⏏** using **◀**, and then **'⏏'** using **▼**.
- Confirm with **▶**.
- Select **'Standby'** using **▼** and confirm using **▶**.
- Select **'Low power'** or **'Normal'** using **▼**, **▲**.
- Confirm with **OK** and end with **SYSTEM MENU**.

The initial installation is now complete.

How to modify the channel settings or the time/date settings you will read on the following chapter.

Further settings relate to the TV Guide On Screen™ System. This offers a free interactive guide to the TV programs available in your area.

To install this system, please read the instructions in the section entitled 'The TV Guide On Screen™ System'.

Installation

Tuner mode

Your DVD-Recorder is equipped with a so called Tuner Mode. With the button **TUNER** you can switch between playback from the HDD/disc or the Picture from the internal Tuner (TV Channels).

If a cable box is connected to the **VIDEO (CVBS)-EXT2** or **S-VIDEO (Y/C)-EXT2** jacks and installed as described in the chapter 'Setting up the TV Guide On Screen™system' you can switch only between the playback and the TV Channels from the cable box. The internal Tuner is switched off.

Attention!

If the cable box were disconnected and the setting in the TV Guide On Screen™system remains unchanged (cable box: Yes) you are not able to select the TV channels with the number buttons **0..9**.

If you do not use the cable box anymore, you have to change the setting in the TV Guide On Screen™system settings (cable box: No).

Automatic TV channel search

If the channel assignments of your cable or satellite TV provider change or if you are reinstalling the DVD recorder, e.g. after moving house, you can start this procedure again. This will replace the stored TV channels with the new ones.

ATTENTION !

If data from the TV Guide On Screen™ system is available, you can not select this function. If you want to start this procedure again, repeat the basic settings for the TV Guide On Screen™ system. Read therefore the Chapter 'Set up the TV Guide On Screen™ system'.

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

1 Press the **BROWSER HDD** button and then the **SYSTEM MENU** button on the remote control.

→ The 'SYSTEM MENU' appears.

2 Select 'Set up' using ▼ .

3 Press ► to select 'System'.

4 Select the line 'Installation' using ▼ and confirm with ► .

→ A message appears on the screen that the change of this setting will flush the 'Time Shift Buffer'.

- If the 'Time Shift Buffer' contains important recordings, save them with the **REC/OTR** button first. Read additional information to the 'Time Shift Buffer' in the chapter 'The Time Shift Buffer'.

5 Select 'Yes' with ◀ and confirm with **OK** .

- If the message window was closed, confirm the line with ► again.

6 Select 'Auto Ch. Programming' using ▼ or ▲ .

7 Press ► .

→ The automatic TV channel search starts. This allows the DVD recorder to save all available TV channels. This procedure may take several minutes.



→ When all the TV channels have been found, '**Auto ch. search complete**' will appear on the TV screen.

8 End with **SYSTEM MENU** .

× **Too few TV channels have been found**

✓ For the 'automatic channel search' the DVD recorder detects whether an antenna signal or a cable TV signal is connected. If you have connected a cable TV signal but have received too few TV channels you need to make the setting manually.

- In **6** select the line '**Cable/Antenna**' instead of '**Auto Ch. Programming**' and confirm with ► . ► .

- If you select '**Cable**', channels 1-125 will be available.

- If you select '**Anten.**', channels 2-69 will be available.

Select your type of connection by pressing ► repeatedly:

'Anten.', '**Cable**' or '**Auto.**' automatically detects which one you have.

- Confirm the setting with **OK**

- Press **SYSTEM MENU** to go to the next menu. Press **OK** to start the channel search as prompted by the on-screen message. If this message does not appear, select the line '**Auto Ch.**

Programming' and start the channel search with **OK** .

- When the channel search is complete, press **SYSTEM MENU** repeatedly to remove all the menus.

You can read about how to add a TV channel manually in the section 'Adding and clearing TV channels manually'.

Additional installation features

Adding and clearing TV channels manually

With this function you can block TV channels on which reception is not possible. They will be skipped when the **CHANNEL +** and **CHANNEL -** buttons are selected.

ATTENTION!

The allocation (TV channel name to the TV channel) will be done from the TV Guide On Screen™ System automatically. Therefore you cannot select this function.

* I can not select the line 'Add/Delete Channels'

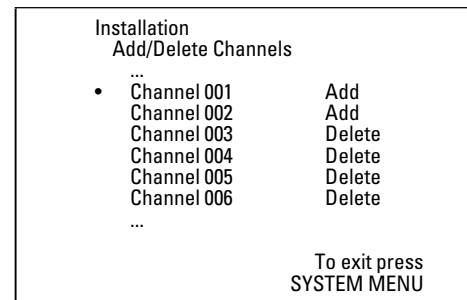
To switch the channels on or to change the allocation manually proceed as follows:

- Press **TV GUIDE**. The **'LISTINGS'** screen appears.
- Press repeatedly **▲** to select the menu bar at the top of the screen.
- Select with **◀** or **▶** **'SETUP'**.
- Select with **▼** or **▲** **'Change channel display'** and confirm with **OK**.
- Select with **▼**, **▲** the TV-Station. With **▶▶**, **◀◀** you can switch one page for or back.
- Enter in the right column the TV channel with the number buttons **0..9**. You can switch the channel on or off with the green function button.
- End with **TV GUIDE**.
- Switch off the Recorder with **STANDBY** **⏻**.
The new settings will be taken if the Recorder is switched on again.

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press the **BROWSER HDD** button and then the **SYSTEM MENU** button on the remote control.
→ The 'SYSTEM MENU' appears.
- 2 Select **'Set up'** using **▼**.
- 3 Press **▶** to select **'System'**.
- 4 Select the line **'Installation'** using **▼** and confirm with **▶**.
→ A message appears on the screen that the change of this setting will flush the 'Time Shift Buffer'.
 - If the 'Time Shift Buffer' contains important recordings, save them with the **REC/OTR** **●** button first. Read additional information to the 'Time Shift Buffer' in the chapter 'The Time Shift Buffer'.
- 5 Select **'Yes'** with **◀** and confirm with **OK**.
 - If the message window was closed, confirm the line with **▶** again.
- 6 Select **'Add/Delete Channels'** using **▼** or **▲** and confirm with **▶**.



- 7 Using **▼** or **▲** select the TV channel that you want to add or delete.
- 8 Use **▶** and **◀** to select **'Add'** or **'Delete'**.
- 9 Repeat steps 7 to 8 until you have added or deleted all the TV channels you want.
- 10 To store, press **OK**.
- 11 To end, press **SYSTEM MENU**.

Setting the language

For the basic setting of DVD playback, you can select the language for the subtitles and the audio language.

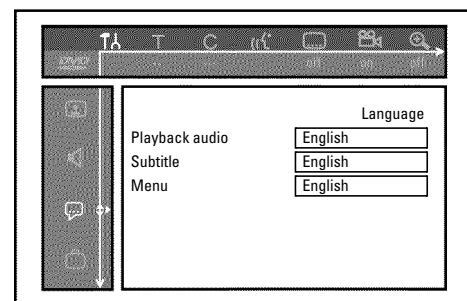
Please note that with some DVDs the audio language and/or subtitle language can be changed only via the DVD menu.

For recording, you can also switch the TV channel sound between stereo and an additional language (Secondary Audio Program SAP).

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press the **BROWSER HDD** button and then the **SYSTEM MENU** button on the remote control.
→ The menu bar appears.
- 2 Select **'T' symbol** with **◀** or **▶**.
- 3 Select **'🗨'** with **▼** or **▲** and confirm with the **▶** button.



Additional installation features

- 4 Select the appropriate line and confirm with ► .
 - **Playback audio**
The DVD will play back in the language you have chosen.
 - **'Subtitle'**
Subtitle language
 - **'Menu'**
You have the option of setting one of the displayed languages for the on-screen menu (OSD). However, the DVD recorder display will only display English text regardless of this setting.
- 5 Select the appropriate setting using ▼ or ▲ and confirm with **OK** .
- 6 To end, press **SYSTEM MENU** .

Setting the time and date automatically

This feature automatically sets the time and date using the information transmitted by the local PBS channel. You need to enter the PBS channel that transmits this additional information. If an incorrect PBS channel is selected by the DVD recorder, or if the time/date is not displayed correctly, you need to set the time/date manually (see 'Setting the time & date manually').

Attention!

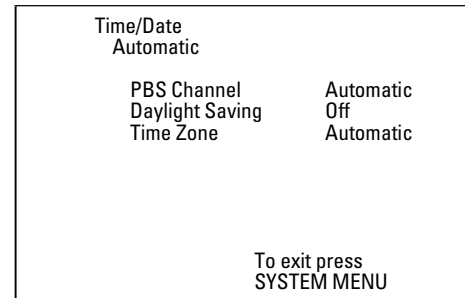
If data from the TV Guide On Screen™ system were loaded, you can not change the clock/date because this information was taken from the TV Guide On Screen™ system. Therefore you can not select this function.

- 1 Press the **BROWSER HDD** button and then the **SYSTEM MENU** button on the remote control.
→ The 'SYSTEM MENU' appears.
- 2 Select **'Set up'** using ▼ .
- 3 Press ► to select **'System'**.
- 4 Select the line **'Installation'** using ▼ and confirm with ► .
→ A message appears on the screen that the change of this setting will flush the 'Time Shift Buffer'.
 - If the 'Time Shift Buffer' contains important recordings, save them with the **REC/OTR** button first. Read additional information to the 'Time Shift Buffer' in the chapter 'The Time Shift Buffer'.
- 5 Select **'Yes'** with ◀ and confirm with **OK** .
 - If the message window was closed, confirm the line with ► again.

- 6 Select **'Time/Date'** using ▼ or ▲ and confirm with ► .
- 7 Select **'Automatic'** with ▼ or ▲ and confirm with ► .

* **'Not allowed' will appear on the TV screen**

✓ *The time/date will automatically be taken from the TV Guide On Screen™ System. Therefore you can not set the time/date manually.*



- 8 Select the corresponding line with ▼ or ▲ .
- 9 In **'PBS Channel'** select the channel that transmits the time and date information and confirm with **OK** . The DVD recorder checks whether the information can be transferred.
 - * **The following message appears on the screen: 'Clock not set, check channel'**
✓ *Time/date information cannot be transferred from this TV channel. Select a different TV channel or 'Automatic' in the 'PBS Channel' line.*
- 10 In the line **'Daylight Saving'**, select one of the following:
'On': The time set corresponds to summer time (summer time activated)
'Off': The time set corresponds to winter time (summer time deactivated)
- 11 In **'Time Zone'** select your current time zone if a PBS channel in a different time zone has been entered. Only this way can you set or adjust the time correctly.
If you want to use the time zone of the PBS channel, select **'Automatic'**.
- 12 Confirm by pressing **OK** .
- 13 To end, press **SYSTEM MENU** .

The time and the data are automatically transferred from the selected 'PBS channel' after the unit has been switched off.

Additional installation features

Setting the time and date

If the time is still incorrect, this may be due to a weak or faulty TV signal. In this case, switch off the automatic setting.

- 1 Press the **BROWSER HDD** button and then the **SYSTEM MENU** button on the remote control.
→ The 'SYSTEM MENU' appears.
- 2 Select '**Set up**' using ▼ .
- 3 Press ► to select '**System**'.
- 4 Select the line '**Installation**' using ▼ and confirm with ► .
→ A message appears on the screen that the change of this setting will flush the 'Time Shift Buffer'.
 - If the 'Time Shift Buffer' contains important recordings, save them with the **REC/OTR** button first. Read additional information to the 'Time Shift Buffer' in the chapter 'The Time Shift Buffer'.
- 5 Select '**Yes**' with ◀ and confirm with **OK** .
 - If the message window was closed, confirm the line with ► again.
- 6 Select '**Time/Date**' using ▼ or ▲ and confirm with ► .
 - × **'Not allowed' will appear on the TV screen**
 - ✓ *The time/date will automatically be taken from the TV Guide On Screen™ System. Therefore you can not set the time/date manually.*
- 7 Select '**Manual**' with ▼ or ▲ .
- 8 Confirm with **OK** .

Time/Date	
Manual	
Time	09:02
AM/PM	AM
Year	2004
Month	01
Date	01
Daylight Saving	Off
To exit press SYSTEM MENU	

- 9 Change the time in '**Time**' using the number buttons **0..9** on your remote control.
- 10 Check '**AM/PM**', '**Year**', '**Month**' and '**Date**' in the same way. Select the entry field with the ▼ or ▲ button. If required, make changes using ◀, ► or the number buttons **0..9** .

- 11 In the line '**Daylight Saving**', select one of the following:
'**On**': The time set corresponds to summer time (summer time activated)
'**Off**': The time set corresponds to winter time (summer time deactivated)
- 12 When all the settings are correct, confirm with **OK** .
- 13 To end, press **SYSTEM MENU** .

If the setting has been confirmed with **OK** the automatic system is disabled

General information

Your DVD Recorder is equipped with the TV Guide On Screen™ System. The TV Guide On Screen™ System offers a free interactive electronic program guide that lists all the TV programs available in your area. You can also use the TV Guide On Screen™ System to program your DVD recorder to record your favorite shows.

Press **TV GUIDE** to see a summary of all the TV programs currently being shown on the various TV channels. For the summary, you can either display all shows for a particular start time or sorted according to category.

For the TV Guide On Screen™ System to operate correctly, the necessary data has to be collected. The DVD recorder may take up to several hours to do this.

Please note the following:

-) All the TV channels must already have been installed.
-) The TV channel that transmits the TV Guide On Screen™ system information must not be switched off
-) The time and date must have been set.
-) The antenna/cable network must be connected; it must be possible to receive TV channels.
-) The DVD recorder must be connected to the AC-outlet
-) The DVD recorder must be switched to standby with the **STANDBY** ⏻ button.
-) If you have connected a cable box it must be switched on.

Setting up the TV Guide On Screen™ System

Below we'll tell you how to set up the TV Guide On Screen™ System to suit your own particular needs and how to install a cable box if you have one.

If the TV Guide On Screen™ System has not yet been set up, go directly to step ④.

- ① Switch on the TV set. If required, select the channel for the DVD recorder (channel 3 or 4).
- ② Press the **TV GUIDE** button on the remote control.
→ The **'LISTINGS'** screen will appear.

× **A Set-up screen will appear**

✓ The TV Guide On Screen™ System is not completely installed, or the installation was aborted. Choose from the following options and follow the instructions on the screen:

- **'Set up GUIDE now':**
Installation of the TV Guide On Screen™ System
- **'Set up GUIDE later':**
If you choose this option the 'reminder screen' will appear every time you switch on the DVD recorder.
- **'Don't remind me again':**
Select this option if you do not want to set up the TV Guide On Screen™ System now. Please note, that without a complete installation from the TV Guide On Screen™ System it is not possible to make a program recording.

- ③ Press **▲**. Select then **'SETUP'** with the **▶** or **◀** button.
Use **▼**, **▲** to select **'Set up GUIDE now'**.
- ④ Confirm with **OK**.
A list of countries will appear on the screen.
Use **▲**, **▼** to select your country.
- ⑤ Confirm with **OK**.
- ⑥ Enter the zip/postal code where the DVD recorder is being set up.

Why do I have to enter my zip/postal code?

For the TV Guide On Screen™ System to operate correctly it needs to know its current location and the TV channels available at that location. The DVD recorder works this out automatically on the basis of the zip/postal code and country.

- ⑦ Confirm with **OK**.
- ⑧ Select your type of antenna connection.
'Cableservice' 'No': Antenna
'Cableservice' 'Yes': Cable connection

What is the difference between cable and antenna?

The difference is that they have different channel rasters. In the antenna setting, only channels from 21 to 69 can be entered. In the cable setting, however, channels 1 to 125 can be entered.

- ⑨ Confirm with **OK**.
If you selected **'Cableservice' 'No'**, there is nothing further you need to do here. Read on in the section entitled 'Continue set-up'. Otherwise, you should continue here.
- ⑩ Select the type of cable connection.
'Yes': External cable box
'No': Connection to a cable network.
- ⑪ Confirm with **OK**.
If you selected **'No'**, there is nothing further you need to do here. Read on in the section entitled 'Continue set-up'. Otherwise, you should continue here.
- ⑫ If you connected the cable box to the DVD recorder only via the antenna cable, select with **▼** or **▲** the channel number on which the cable box is transmitting (most channel 3).
If the cable box is connected via the Video/Audio or S-Video jack, select the relevant input jack of the DVD recorder on the screen. An incorrect setting here may lead to poor TV reception.
- ⑬ Confirm with **OK**.

The TV Guide On Screen™ System

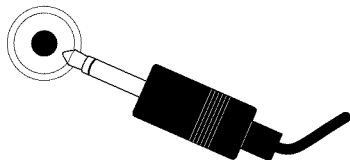
Connecting the IR-Blaster

The cable box is controlled via the DVD recorder with the IR-Blaster (supplied). This means you can record TV shows that are received only through the cable box.

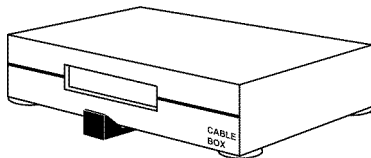
Connection of the G-LINK™ cable enables the TV Guide On Screen™ system to show the correct guide listing.

- 1 Connect the IR Blaster to the jack **G-LINK** jack on the back of the DVD recorder.

G-LINK



- 2 Place the IR Blaster in front of the cable box so that the control signal (IR signal) can be transmitted and received by the cable box without interference.



How do I find the right position?

If the position of the remote (IR) receiver is indicated on your cable box (IR, remote sensor, or such like), place the transmitter about 1 inch in front of it.

If the position is not indicated, proceed as follows:

- Switch off the cable box.
- Point the remote control at the front of the cable box.
- Move the remote control slowly along the front while repeatedly pressing the on/off button.
- When the cable box switches on you've found the receiver.
- Attach the IR blaster about one inch away.

- 3 Confirm the displayed information with **OK**.

Setting up the cable box

For the cable box to be correctly identified it must be connected as described in the previous section.

- 1 Switch the cable box on and select channel number 02 on it.
- 2 Select your type/brand from the list shown. If you scroll down with ▼, you will see further brands. If your type/brand is not in the list, select '**not listed**'.
- 3 Confirm with **OK**. Read the information on the screen carefully.
- 4 Confirm with **OK**.
→ The DVD Recorder will now attempt to use the G-LINK connection to select channel number 09 on the cable box.
- 5 Has the cable box been switched to channel 09?
If so, select '**Yes**'.
If not, select '**No**'.

* **My cable box has not switched to the other channel number.**

- Check that the cable box is connected and switched on.
- Check the connection and position of the IR blaster.
- If the connection is OK, select: '**test this code again**' for a new attempt.
- Confirm with **OK** on the remote control.
- For a new code, select '**No**'.
- Confirm with **OK** on the remote control.

* **My cable box is not displaying the channel number.**

- On your TV set, select the channel number of the cable box and check the setting on the screen of the TV.

Finalize set-up

- 1 Check the settings shown on the screen. If the settings are not correct, repeat the set-up procedure with the selection of '**No, repeat setup process**'. Otherwise, select '**Yes, end setup process**'.
- 2 Confirm with **OK**.
You will now see a screen with useful information of the TV Guide On Screen™ System.
- 3 Confirm with **OK**.
You will now see a message confirming the completion of the TV Guide On Screen™ set-up process.
- 4 Confirm with **OK**. This completes the set-up process for the TV Guide On Screen™ system.
- 5 Switch the DVD-Recorder off with the **STANDBY** ⏻ button. If you have connected a cable box leave the box on. Leave the DVD-Recorder and the cable box in this conditions overnight. The data will be collected and will be available within the next 24 hours.

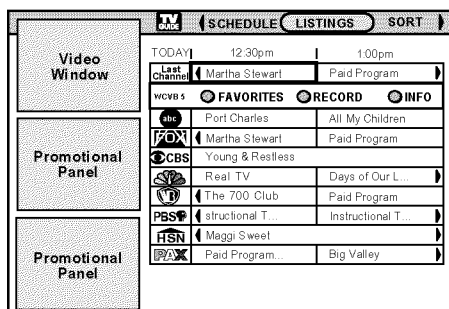
If the DVD-Recorder is switched off (**STANDBY** ⏻ button) the cable box will be used from the TV Guide On Screen™ system via the DVD-Recorder to search for the informations.

If you want to use the cable box you have to switch the DVD-Recorder on.

The TV Guide On Screen™ System

General

The TV Guide On Screen™ System is a free on-screen listing for all the TV channels in your area. You can also use it to control a cable box.



The TV Guide On Screen™ System has five screen components:

-) The video window
-) Program information
-) A line of available OSD menus
-) The channel guide
-) Advertising information

Calling up the TV Guide On Screen™ System:

Press **TV GUIDE** on the remote control.

Closing the TV Guide On Screen™ System:

Press **TV GUIDE** to leave the TV Guide On Screen™ System and continue viewing the program you were viewing before you called up the TV Guide On Screen™ System.

Using the buttons on the front

Calling up the TV Guide On Screen™ System: **GUIDE** button.

Closing the TV Guide On Screen™ System: **GUIDE** button.

Confirming the functions: **OK** button.

Cursor buttons: **UP** , **DOWN** , **LEFT** , **RIGHT** .

Navigating the TV Guide On Screen™ System

If you press **TV GUIDE** , the main menu will appear. Press **▲** and then you can press **◀** or **▶** to select from the following:

- **'LISTINGS'**: Standard TV Guide On Screen™ system screen (Program guide)
- **'SORT'**: TV shows sorted by category (movies, sport, etc.)
- **'PROMOTIONS'**: Information on the TV Guide On Screen™ system, instructions and advertisements.
- **'SETUP'**: For changing the basic settings. For further information, see chapter 'Set up the TV Guide On Screen™ system'.
- **'MESSAGES'**: Messages to the user
- **'SCHEDULE'**: Scheduled (pre-programd) recordings

Function buttons

If TV Guide On Screen™ information has been loaded you can perform various actions in the TV Guide On Screen™ screen. There are two color buttons (blue and green). The actions these buttons perform depends on the menu at the time. Always check before pressing a button.

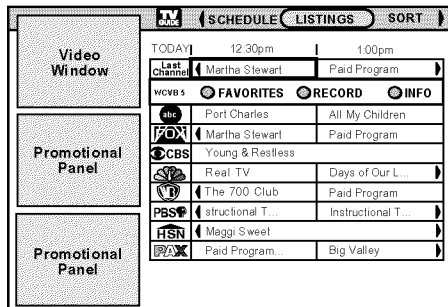
If no color buttons are displayed, pressing them will have no effect.

INFO button

An **INFO** button is also available. If additional information is displayed, you can use this button to enlarge the relevant area. In some cases this button can also be used to scroll through pages of information.

The TV Guide On Screen™ System

The 'LISTINGS' screen



This list appears when you press the **TV GUIDE** button. You can view the listing for all the TV channels from today to the same day next week.

- 1 Press **TV GUIDE**. The '**LISTINGS**' screen will appear.
 - In the top left corner the picture of the TV channel appears which was selected before you call up the TV Guide On Screen™ system.

* **The 'LISTINGS' screen appears but is empty**

- ✓ Either the antenna is not connected or TV Guide On Screen™ data is not yet available. The DVD recorder needs some time to collect this data. Leave it switched off during these period (button **STANDBY**). Do not disconnect the DVD recorder from the AC-outlet!
- ✓ If you have connected a cable box, it must be switched on.

- 2 Select the corresponding TV channel with **▲** or **▼**.
 - You can also use the number buttons **0..9** to select a TV channel directly.
 - You can use the **CHANNEL +** and **CHANNEL -** buttons to scroll a page at a time.
- 3 Use the **◀** or **▶** button to select the show you want.
 - You can hold down **◀** or **▶** to browse faster through the start times.

How do I cancel?

Press **TV GUIDE**.

The guide will disappear and you will be able to view the show you selected before you called up the TV Guide On Screen™ System.

Action buttons in the 'LISTINGS' screen

You can use the color buttons on the remote control to select the following:

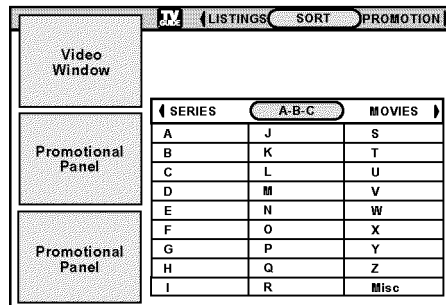
'RECORD' (green button):

The highlighted show will be programmed for recording.

'FAVORITE' (blue button):

The highlighted TV show will be stored together with its start time. When the start time is reached, a message appears on the screen.

The 'SORT' screen



This menu lets you access show listings organized by category. This is an easier way of finding the shows you want to watch.

Make your selection from a major category (Alphabetical, Movies, Sport, Children's, Series, etc.) and a minor category (Adventure, Comedy, Drama, etc.)

Colors of the categories:

- Green**-Sport,
- Purple**-Movies,
- Blue**-Children's,
- Teal**-Others,
- Yellow**-Selected show

The sorting service gives you show listings for the next 7 days.

- 1 Press **▼**.
- 2 Select the category with **◀**, **▶**.
Confirm with **▼**. Select the minor category with **▼**, **▲**, **◀**, **▶**.
- 3 Confirm with **OK**.
Use the **▼** and **▲** buttons to scroll through the shows.

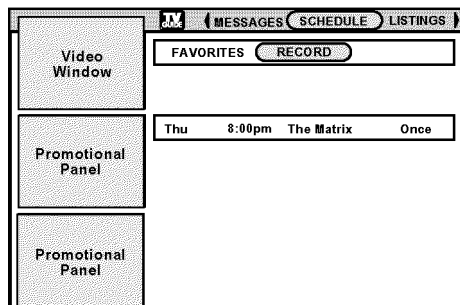
Function buttons in the 'SORT' screen

If you have highlighted a show you can use the colored buttons to perform the following actions:

Set to record : green function button or

Set as favorite : blue function button.

The 'SCHEDULE' screen



This menu displays the shows that are set to record or play back automatically.

The following information is also displayed for each scheduled recording:

'Thu': Day of the week (e.g.: Thursday)

'8:00pm': Start time

'The Matrix': Title of the show

'Once': Frequency of the show. ('Once'... once recording/ 'Regular'... every day/ 'Weekly'...every week/'off'... switched off for the recording.

- 1 Press ▼ . Select with ◀ , ▶ 'FAVORITE' or 'RECORD'.
- 2 Select the event you want to change with ▼ , ▲ .

Change Start/End time

Press the **OK** button.

Delete an event

Press the blue function button.

Program a timer

Press the green function button in the 'FAVORITE/RECORD' line.

The 'MESSAGES' screen

Messages to the user are stored here.

If a message has been received but has not yet been read, a closed yellow envelope appears in the 'video window'.

Messages are automatically deleted when the message's "lifetime" expires (60 days) unless they have already been deleted with the green action button.

Moreover, the TV Guide On Screen™ system ID number is displayed at the end of the list. This number is always visible and cannot be deleted.

Colors in this listing:

Teal: All unread messages

Grey: All read messages

Yellow: Selected message

Function buttons in the 'MESSAGES' screen

Green action button: Deletes the message

OK button: Opens an info box

The 'PROMOTIONS' screen

Here you can retrieve information on various products or the TV Guide On Screen™ System. Press the **INFO** button to view detailed descriptions of the products.

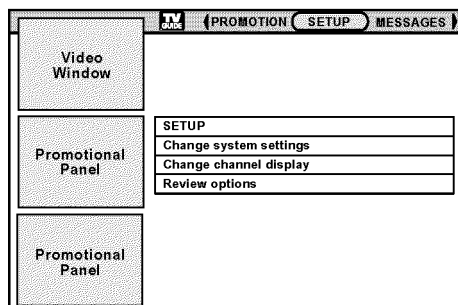
Colors in this menu:

Teal: Promotion titles

Yellow: Selected promotion

The TV Guide On Screen™ System

The 'SETUP' screen



The basic settings of the TV Guide On Screen™ System are automatically stored after the initial set-up has been completed. You can change these basic settings here.

Choose the function with ▼ or ▲ and confirm with **OK**.

'Change system settings'

Here you can change the basic settings. Choose with ▼ or ▲ the appropriate answer:

'Yes, everything is correct'

All settings are correct. Nothing should be changed. End with **OK**. Read the information on the screen.

Leave the TV Guide On Screen™ System with **OK**.

'Yes, but my channel lineup is incorrect'

The basic settings are correct (Zip/Postal code, cable box,...) but there were more than one channel line ups recognized.

- 1 Confirm with **OK**.
- 2 Choose with ▼ or ▲ the channel line up which fits to your location. If necessary ask your Cable TV provider. After the confirmation with **OK** the TV channels were automatically adapted.
- 3 If no channel line up match that from your location, select '**No Match**'. After the confirmation with **OK** you get automatically the '**Change channel display**' screen. Please follow the description in the next chapter.

'No, repeat setup process'

After the confirmation with **OK** you will start the setup process of the TV Guide On Screen™ System again. Please note that after the installation is complete it can take up to 24 hours to load the actual data.

'Change channel display'

Here you can change the order of the TV channels for the '**LISTINGS**' screen. Moreover, you can assign the channel numbers to the TV stations and switch them on or off.

- 1 Press **OK**.
A TV station is displayed in two columns.
- 2 Use the ▼ and ▲ buttons to select the TV station you want to modify. Use the ◀ and ▶ buttons to switch between tiles.

Left tile

The TV station logos and call letters are shown here.

Rearrange channel order for the 'LISTINGS' screen

Use the green button or the blue button to reposition the channel.

You can use the number buttons **0..9** on the remote control to select a specific position directly.

In the '**LISTINGS**' screen only switched on channels appears.

Right tile

The state of the channels and the channel numbers are displayed here. If a TV station can only be received via an external cable box, select the jack to which the cable box is connected and the channel number of the station on the cable box. If you have connected a cable box only with the antenna cable, enter the channel number of the TV station that you would normally enter for this station on the cable box.

Please note that if you have changed TV stations it can take up to 24 hours to get the actual data,

- 3 Use the number buttons **0..9** to enter the channel number of the TV station. You can only enter valid channel numbers.

Switching the TV station on and off

Use the green action button to toggle between displaying ('ON') and hiding ('OFF') the TV station in the listing and for the selection with ▼, ▲.

How do I cancel?

You can cancel by pressing the blue action button.

'Review options'

Here you can choose with ▼ or ▲ between 'Auto display' 'On' or 'Off'.

- On
The TV Guide On Screen™ system screen appears every time the DVD Recorder is switched on with the **STANDBY** ⏻ button.
- 'Off'
You will have to press the button **TV GUIDE** to access the TV Guide On Screen™ system.

General

As soon as you turn on the DVD recorder, the currently selected TV channel on the DVD-Recorder is recorded in a temporary storage (Time shift Buffer).

Recordings in the time shift buffer will be automatically deleted e.g. after 3 hours if the period of the time shift buffer is set to 3 hours (factory setting). Only recordings marked in the Time shift Buffer will be stored on the built-in HDD. For more information, read the next section 'The Time Shift Buffer'.

The following additional information is stored with each recording:

- name of the recording
If no name is recognized from the TV Guide On Screen™ systems data, only the program number (program name) and the time will be stored as the name.
- length of the recording
- recording mode (quality)
- date of the recording
- index picture of the recording

To facilitate the search of a specific position, a chapter marker is recorded every 5 minutes. How you switch off this function you will read in chapter 'User preferences for the HDD' in the section '**Preferences/Chapters**'. After the recording is completed, you can select these markers with **◀◀** , **▶▶** . Please make sure that the chapter selection is activated (the '**CHAPTER**' symbol lights up in the info bar at the top of the screen). If necessary, you can activate it using **T/C** .

The Time shift Buffer



As a result of the high data transfer speed of the HDD, it is possible to play back recordings from the time shift buffer while the recording is still in process.

Therefore, you can jump back to the currently selected TV program using **JUMP BACK** and watch a scene again.

Moreover, you can use all playback features such as still picture, slow motion, search by time, search with **◀◀** , **▶▶** even with recordings that are still in the time shift buffer.

In the meantime, the recording continues.

If you change the TV channel on the DVD-Recorder (**CHANNEL +** , **CHANNEL -**) a new title is created with the new TV channel in the time shift buffer. If you watch a TV show only for a short time (less than 60 seconds) before you change to a different TV channel, no new title is created.

For easier navigation, you can change the time period of the time shift buffer from 1 to 6 hours. 1 hour means that a recording is available only for one hour before it is automatically deleted to make room for the current recording.

If the TV Guide On Screen™ system delivers title information, the latter is also stored with the recording. When recording TV shows without TV Guide On Screen™ information, only the date and the time of the recording are stored as title.

What is the advantage from 1 hour and 6 hours?

The complete time periode of the time will be displayed on the whole screen of your TV.

With 1 hour you will get the highest comfort for searching a specific scene.

With 6 hours you will get the highest possible recording time.

Please observe that the Time shift Buffer needs also storage capacity on the HDD. Depending of the selected record mode (picture quality):

6 hours in 'M1' = approx. 28GB

6 hours in 'M8' = approx. 3,4GB

*How you enter the time periode, read in the chapter 'User preferences for the HDD' in the section '**Preferences**' / '**Recording**' / '**HDD buffer**'.*

Recording on the HDD

Symbols in the 'Time Shift Buffer'

Following symbols can appear in the info bar at the top of the screen in the 'Time Shift Buffer'. With the **INFO** button on the remote control you can also call up this infobar.

Left area

Information about the input signal were displayed here:

'Y' Actual TV show (live picture) from the selected TV channel


'P01' Program/Channel number of the selected TV channel

'ARD' Name of the TV-channel

 Playback from the HDD


Right area

Information about the current operating status were displayed here:

 16:03:02' Actual (live) picture of the selected TV-channel
(**TUNER** button)

 **PAUSE** Playback from the HDD

 **PAUSE** Still picture

 **1/2X** Slow motion forwards

 **1/4** Slow motion backwards

 **2X** Fast motion forwards

 **4X** Fast motion backwards






Navigation in the time shift buffer

Preparation:



-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

1 Press **INFO** to display the bar of the time shift buffer on the screen.

2 The following buttons are available:

  , **PLAY**  , **PAUSE II** ,  ,  , **JUMP FWD** , **JUMP BACK** for navigation in the time bar.


 **T/C**

Switching between title/chapter for selection using  ,  . The top screen line displays either '**TITLE**' for selecting titles or '**CHAPTER**' for selecting chapters

 **REC/OTR**  :

- To start a recording that will be stored on the HDD.
- To mark a title that will be stored on the HDD.
- Hold button down to start the recording from the actual position.

 **Red function button:**

- To cancel the marked recording that was set with the **REC/OTR**  button.
- Hold button down to stop the recording at the actual position.

 **Yellow function button: ('OVERVIEW')**

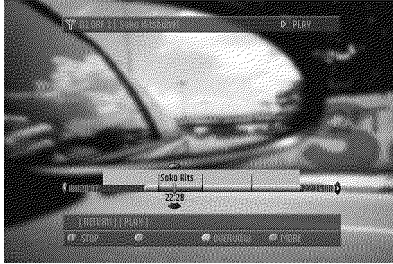
To display an overview of all content of the time shift buffer.

 **Blue function button: ('MORE INFO'):**

To display any additional information for the actual TV show transmitted by the TV Guide On Screen™ system.

Mark TV shows for recording

As a rule, recordings in the time shift buffer are automatically deleted after a certain time (1 to 6 hours). In order to store recordings on the HDD permanently, you can mark sections of the time shift buffer that will not be deleted and will be available as titles for later playback.



Mark an entire title

A title marker is set if you are watching a TV show longer than 60 seconds. (No change of program number within 60 seconds)
If you want to mark an entire title (title marker at the beginning and at the end), proceed as follows:

- 1 Press **INFO** to display the bar of the time shift buffer on the screen.
 - You can also press the yellow color button to get a better overview of the recordings.
- 2 Select the title you want to store with **▼**, **▲**.
- 3 Press **REC/OTR** ● to mark the title.
 - The color within the bar changes to red. If you press the yellow button, you will see programs marked for recording with a red dot.
 - To remove the marker, press the red function button. The red title marker disappears.
- 4 If you want to mark other titles, repeat steps 2 and 3, until you have selected all the titles you want.
 - If you want to mark several titles in a sequence, go to the oldest title and press **REC/OTR** ● several times.
 - Using **REC/OTR** ● you can also mark the future end of a title (actual TV-show is not over yet) You will see this in the red marked '|||||||' symbol on the right end of the Time Shift Buffer bar.
The recording will be stopped automatically at the end of the program.
If the start (titlemarker) of the TV-Show was not taken from the TV Guide On Screen™ System, or no TV Guide On Screen™ information is available, you can extend the end by +30, +60, +90, ... minutes using **REC/OTR** ●.

Mark part of a title

You can also mark only parts of a title.
If you mark several parts of a title, each part will be stored as a separate title on the HDD.

- 1 Press **INFO** to display the bar of the time shift buffer on the screen.
 - You can also press the yellow color button to get a better overview of the recordings.
- 2 Select the title you want to store with **▼**, **▲**.
- 3 The following options are available:
 - **Freely selectable end:**
 - Press **REC/OTR** ● to select the entire title. The color changes to red.
 - Search for the desired end using **◀**, **▶**.
 - Hold down the red button:
Red marked recording changes to its original color from the current position to the end of the title.
If you want to set more markers in one title, start marking at the begin of the title.
 - **Freely selectable beginning:**
 - Search for the desired beginning using **◀**, **▶**.
 - Hold down the **REC/OTR** ● button.
The marker changes to red from the current position to the end of the title.
 - **Freely selectable beginning and end:**
 - First, you must define the beginning and then cut off the end.
 - Search for the desired beginning using **◀**, **▶**.
 - Hold down the **REC/OTR** ● button.
The marker changes to red from the current position to the end of the title.
 - Search for the desired end using **◀**, **▶**.
 - Hold down the red button:
Red marker changes to its original color from the current position to the end of the title.

How can I delete the changes?

Press **REC/OTR** ● to mark the entire title.
To remove the marker, press the red function button.

'Auto delete'

If there is no space for new recordings on the HDD, recordings will be automatically deleted in the following order:

- 1) Titles that have already been viewed. Symbol '👁'.
- 2) Titles that were not protected. No symbol '✓' available.

More information you will find in the chapter 'User preferences for the HDD'.

Recording on the HDD

Manual recordings

Recordings from the actual on the DVD-Recorder selected TV channel are always started and recorded in the time shift buffer as soon as you switch on the device. To store recordings on the HDD, choose from the following:

Start of the recording:

- Start the recording from the begin of the TV-show (Start is known from the TV Guide On Screen™ System, or change of the TV program)
Press **REC/OTR** ● .
- Start the recording from the actual position (from now)
Hold **REC/OTR** ● pressed, until the red light around the ● button on the front is switched on.

Stop the recording in progress:

- Stop the recording automatically:
If the start of the TV show is known from the TV Guide On Screen™ System
The recording will stop at the end of the TV-Show.
- Stop the recording manually:
Hold the red button on the remote control pressed, until the red light around the ● button on the front is switched off.

- You can mark a recording for storage on the HDD using **REC/OTR** ● on the remote control or ● on the device. Such marked recordings are displayed as a red bar in the time shift buffer and are not automatically deleted after the time shift buffer period (1 to 6 hours) expires.

- If you switch off the DVD recorder with **STANDBY** ⏻ or select the '**Flush Buffer**' function, all other recordings of the time shift buffer will be deleted.

OTR recordings

With this function you can record additional TV shows from the same program number:

- **Information from the TV Guide On Screen™ system available**
The recording will be automatically stopped after the end of the TV show
With each keypress, also the following TV shows will be recorded. (On the screen appears '1 program, 2 programs,...')
- **No Information from the TV Guide On Screen™ system available**
The recording will be automatically stopped after 30 minutes.
With each keypress, you prolong the switch-off time by 30 minutes

If you press the red function button, the marker for the recording is removed.

Recording from a video recorder/DVD player

Please observe:

Most pre-recorded video cassettes or DVDs are copy-protected. If you try to copy these, the message 'COPYPROTECT' will appear in the display of the DVD recorder.

Preparation:

-) Switch on the TV set, and if necessary, select the program number for the DVD recorder.
-) Switch on the DVD recorder.

-) Select recording mode (button **TUNER**, button **SYSTEM MENU**, '**Preferences**', button ► '**Record mode**').

- 1 Connect the video recorder/DVD Player as described in the chapter 'Connecting additional devices'.
- 2 Press **TUNER** to display the picture of the Video recorder/DVD player on the screen.
- 3 Use ▼, ▲ to select the program number of the input jack to which the Video recorder/DVD player is connected.

Please observe that for recordings via the front jacks **S-VIDEO (CAM1) / VIDEO (CAM1) / 'CAM1'** or **DV IN (CAM2) / 'CAM2'** the recording mode must be selected under '**Camera mode**' in '**Preferences**' of the system menu.

- 4 Switch on the video recorder/DVD player.
 - In case playback has started automatically, interrupt it with **STOP** ■ or **PAUSE** II .
- 5 Start recording by pressing **REC/OTR** ● on the DVD recorder and playback by pressing **PLAY** ► on the video recorder/DVD player.

× **When copying video cassettes, 'NO SIGNAL' appears in the display of the DVD recorder**

- ✓ Check whether the cable connectors are properly inserted.
- ✓ If the recording is made from a video recorder, change the 'tracking' setting on the video recorder.
- ✓ In case of bad or non-standard video input signals, the DVD recorder may be unable to detect the signal.

× **When copying DVD video discs or pre-recorded video cassettes, the picture is fuzzy and brightness varies**

- ✓ This happens when you try to copy DVDs or video cassettes that are copy-protected. Although the complete cassette/disc is recorded, only parts without copy protected signal can be played back. This interference is unavoidable with copy-protected DVDs or video cassettes.

- 6 To stop the recording press and hold the red function button on the remote control until the red light around the ● button is switched off.

Recording from a camera connected to the front jacks

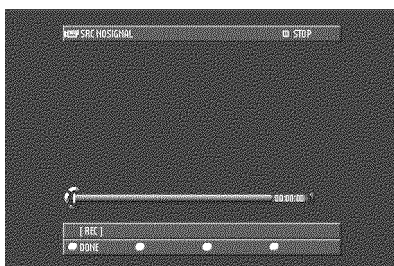
Using this function, you can store recordings via the front jacks directly on the HDD. These titles will be automatically protected to prevent them from being automatically deleted in case the HDD is full. The symbol '✓' indicates such a protection.

You can edit these recordings on the HDD and transfer (archive) them later on a DVD+RW/+R disc. How you archive recordings on a DVD+RW/+R you will read in the chapter 'Recording on a DVD+RW/+R' in the section 'Archiving (storing) titles on a DVD+RW/+R'.

Please observe the following:

-) Any programmed recordings (TIMER) will not be carried out during this operating mode.
-) If there are any recordings in the time shift buffer, they will be deleted. Therefore, store important recordings on the HDD (**REC/OTR** ●). For more information on the time shift buffer, read the chapter 'The Time Shift Buffer'.

- 1 Connect the camera as described in the chapter ' Connecting additional devices/Connect camcorder to the front jacks'
- 2 Press **CAM** on the remote control.
→ The DVD recorder will switch to camera mode.



- 3 Select the jack to which the camera is connected using **CAM** .
 - **'CAM 1'**
For recordings from the **VIDEO (CAM1)** , **S-VIDEO (CAM1)** jacks.
Switching between the two jacks is done automatically. If a signal is available at both jacks at the same time, the signal at the **S-VIDEO (CAM1)** jack has priority. If you change jack (unplug), you must re-select the jack using **CAM** (press twice).
 - **'CAM 2'**
For recordings from the **DV IN (CAM2)** jack.
- 4 Press **REC/OTR** ● to start the recording.
→ If no signal is available, no recording will be made or the recording in progress will be stopped.

→ During the playback of a recorded 'copy protected' signal you will see only that parts of the recording where no copy protection can be recognized.
- 5 You can stop the recording using the following buttons:
 - **PAUSE II**
The recording will be paused. If you press the button again, the recording will resume.
A new chapter is created.

- **STOP** ■
The recording will be interrupted. You can start a new recording by pressing **REC/OTR** ● .
A new title is created.

- 6 Press the red function button to terminate the camera operating mode.
→ The recording will be stored on the HDD as a new title.

Programming a recording (TIMER)

General

Use 'Programming a recording (TIMER)', to automatically start and stop a recording at a later date.

The DVD recorder will switch to the right channel and begin recording at the correct time.

With this DVD recorder, you can pre-programme at least 15 recordings within a period of one year.

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

- * the date you want to make the recording
- * the channel number of the TV channel
- * the start and stop time of the recording

This information is saved in a 'TIMER block'.

Before you begin, make sure the clock is set. If the clock is not set, the 'Time/Date' menu will appear when you press the **TIMER** button.

Programming recordings with the 'TV Guide On Screen™ system'

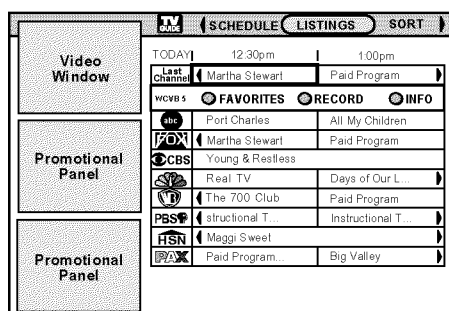


The TV Guide On Screen™ system has made it even easier to programme recordings. All you have to do is select the show you want to record from a channel listing.

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press **TV GUIDE** on the remote control.



- 2 Use **▲** or **▼** to select the TV station, and **◀** or **▶** to select the show to record.

- 3 Press the green function button (labeled '**RECORD**' on the screen).

WARNING! Do not press REC/OTR!

The TV -show will be stored in memory for recordings.
Read the information on the screen.

You can also programme TV shows as 'Favorites'

Press instead the green function button the blue one (labeled '**FAVORITE**' on the screen).

The TV show will be stored in memory for favorites.

Setting up repeat recordings

You can choose from the following settings with the green function button:

Frequency : '**Once**': one-time recordings

'Regular': Repeated when the show is available. At least twice a week

'Weekly': Repeated weekly recordings (every week on the same day).

'Off': this will stop any future occurrences of the program from being recorded but will keep the show in the list.

- 4 Repeat steps 2 to 3, until all recordings have been programmed.

- 5 To end, press **TV GUIDE**.
To find out how you can check which shows you have programmed, read the section on 'How to change or delete a programmed recording (TIMER)'.

If one or more recordings have been programmed '**TIMER**' will light up on the display.

Programming a recording (TIMER)

Programming recordings with the VCR Plus+® System



Thanks to this programming system, you no longer need to tediously enter the date, TV channel, start and finish time. All the information needed by the DVD recorder for programming is contained in the PlusCode programming number. This 9-digit PlusCode number is found in most TV listings magazine.

WARNING!

'Programming with the VCR Plus+® system' without TV Guide On Screen™ data (empty 'LISTINGS' screen) is not possible.

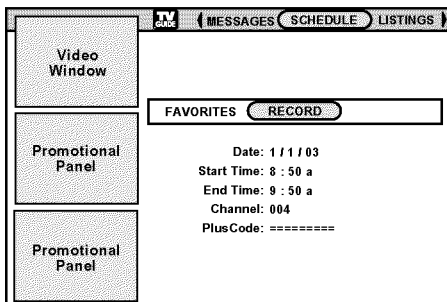
- 1 Switch on the TV set. Select the channel on the DVD recorder (3 or 4).
- 2 Press **TIMER** on the remote control.
→ The current data will appear.

× **I will see some informations about the TV Guide On Screen™ system**

✓ The TV Guide On Screen™ system was not installed yet. Please refer to the 'Set up the TV Guide On Screen™ System' section.

- 3 Select '**PlusCode**' using ▼ .
- 4 Enter the entire PlusCode number. This number is up to 8 digits long and can be found next to the start time of the TV program in your TV listings magazine.
e.g.: 5-234-89 or 5 234 89
Enter 523489 for the PlusCode number.

If you make a mistake, press ▲ . Select line '**PlusCode**' using ▼ .

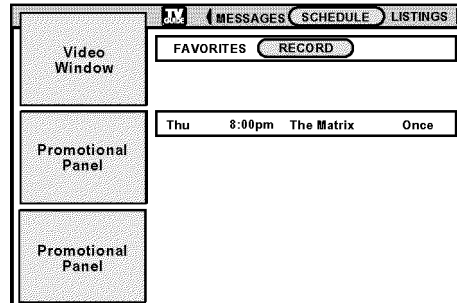


- 5 Confirm with **OK** .

× **The following message appears on the screen: 'PlusCode number wrong'**

✓ The entered PlusCode number is incorrect. Repeat your entry or cancel using the green function button.

→ The decoded data appears after confirmation.



Changing the start/end times

- Use ▼ or ▲ to select the line (programmed recording) where you want to change the times.
- Press the **OK** button.
- Select '**Start early by**' or '**End late by**' using ▲ or ▼ .
- Enter the information in the line using the 0..9 number buttons on the remote control.
- Confirm with **OK** .
- This takes you back to the listing.

Setting up repeat recordings

You can choose in the row '**Frequency**' from the following settings using the green action button:

'**Once**': one-time recordings

'**Daily**': Repeated daily recordings (Monday to Sunday).

'**Weekly**': Repeated weekly recordings (every week on the same day).

'**Off**': this will stop any future occurrences of the program from being recorded but will keep the show in the list.

- 1 If all information is correct, press the **OK** button. The data is stored.
- 2 To end, press **TV GUIDE** .

If one or more recordings have been programmed '**TIMER**' will light up on the display.

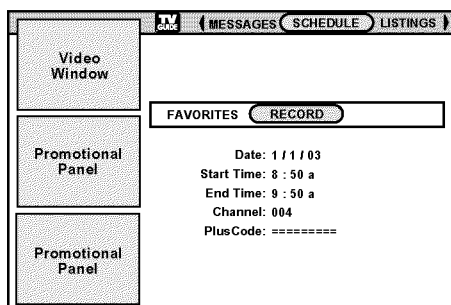
Programming a recording (TIMER)

Programming recordings without the VCR Plus+® System

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press **TIMER** \ominus on the remote control.
→ The current information will appear on the screen.



* I will see some informations about the TV Guide On Screen™ System

- ✓ The TV Guide On Screen™ System was not installed yet. Read therefore in the chapter 'The TV Guide On Screen™ System' the section 'Set up the TV Guide On Screen™ System'.

- 2 Select the line with ∇ , \blacktriangle .
Select the input field with \blacktriangleleft or \blacktriangleright .
- 3 Enter information with ∇ or \blacktriangle or with the number buttons 0..9 .

Change 'AM/PM'

Use the blue function button to select 'AM' or 'PM' in the last input fields of 'Start time' and 'End time'.

In the 'Date' field, enter the month and then the date.

- 4 If all the information is correct, confirm with **OK** .
 You can delete all the entries with the green button.

Setting up repeat recordings

If you have highlighted an entry, you can choose from the following settings with the green function button:

Frequency : 'Once': once recordings

'Daily': Repeated daily recordings from Monday to Friday.

'Regular': Repeated daily recordings when the show is available.

'Weekly': Repeated weekly recordings (every week on the same day).

'Off': this will stop any future occurrences of the program from being recorded but will keep the show in the list.

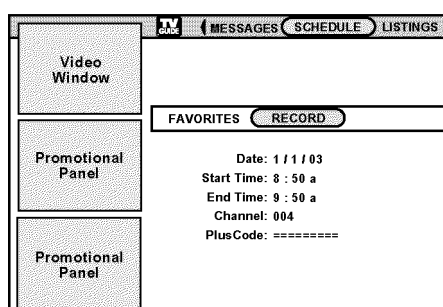
- If the data has been transferred an entry with the data will appear in the 'SCHEDULE' menu. To find out how you can go back and change the data, read the section on 'How to change or delete a programmed recording (TIMER)'.

How to change or delete a programmed recording (TIMER)

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press **TV GUIDE** on the remote.
→ The 'LISTINGS' screen will appear.
- 2 Press \blacktriangle .
- 3 Select 'SCHEDULE' with \blacktriangleleft , \blacktriangleright . Confirm with ∇ .
- 4 Select 'RECORD' with \blacktriangleleft , \blacktriangleright . Confirm with ∇ .



- 5 Use ∇ or \blacktriangle to select the programmed recording you want to change or delete.

Delete programmed recording

Press the blue action button.

Setting up repeat recordings

You can choose from the following settings with the green function button:

Frequency : 'Once': once recordings

'Daily': Repeated daily recordings from Monday to Friday.

'Weekly': Repeated weekly recordings (every week on the same day).

'Off': this will stop any future occurrences of the program from being recorded but will keep the show in the list.

- 6 To end, press **TIMER** \ominus .

A message appears few minutes before the recording is about to start if the DVD-recorder is tuned to a different TV channel as programmed. If you confirm this message the TV channel will be changed and the recording started.

If any of the TIMER blocks are in use, 'TIMER' will light up on the recorder display.

Cancel a programmed recording in progress

A programmed recording will run as long as the end of the TV show is reached (end time of the schedule or end time out of the TV Guide On Screen™ System)

If you switch off the DVD-Recorder with **STANDBY** ⏻ the DVD-Recorder will be switched off after the recording is completed. If you want to cancel the programmed recording proceed as follows:

- 1 Press the red function button
- 2 Select 'Yes' using ◀ and confirm with **OK**.
 - The programmed recording can also be canceled as described in the previous section 'How to change or delete a programmed recording (Timer)'.

Playback from the HDD

General

Each recording stored on the HDD is displayed in the media browser with a corresponding index picture.

- 1 Press **BROWSER HDD** on the remote control or **HDD** on the DVD recorder.

→ The Media Browser appears.



- 2 Select the title you want using **▼**, **▲** on the remote control or **DOWN**, **UP** on the device.

You can switch a page forward or back using **CHANNEL +**, **CHANNEL -**.

- 3 You can choose one of the following options to start playback:

OK

Playback always starts at the beginning of the selected title.

PLAY ►

Playback will start at the position where it was interrupted in the selected title(**STOP ■**). This also works if other titles or DVDs have been played in the meantime.

- 4 You can use the following buttons during playback:



◀▶, **▶▶**

Briefly press: If chapter markers are available, start of current chapter, previous chapter (press twice), next chapter
Hold down: during pause: Slow motion
during playback: Quick motion.

JUMP FWD, **JUMP BACK**

Jump back or forward by a fixed time period.
Read section '**Set up/Jump forward, Jump back**' in chapter 'User preferences for the HDD' on how to set up this time period.

INFO

Display/Hide navigation bar with additional information.

PAUSE II

Still picture. Go forwards or backwards one frame at a time using **▶**, **◀**.

- 5 Press **STOP ■** to end playback.

→ You will return to the media browser.

The position where playback was interrupted will be automatically stored. By pressing **PLAY ►**, playback resumes at this position.

Additional playback features

Search by time

During playback of a title from the HDD or recordings in the time shift buffer, you can search for positions by directly entering the time:

- 1 Press **SYSTEM MENU** during playback of a title.

→ The system menu appears.

- 2 Press **▶** in line '**Toolbar**' to select '**Options**'.

- 3 Press **▼** to select '**Time search**' and confirm with **▶**.

× **It is not possible to select 'Time search'!**

✓ A title of the time shift buffer is played back that has no end yet (no program change, or TV show is not over yet).

→ The time of the current playback position is displayed.

- 4 Use the number buttons **0..9** of the remote control to enter the time where you want playback to start.

- 5 Confirm with **OK**.

→ Playback starts at the desired position.

Repeat

You can choose the entire title for repeated playback.

- 1 Press **BROWSER HDD** and choose the desired title with **▼**, **▲**.

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

- 3 Press the green function button.

→ A symbol appears on the screen to display the repeated playback.

To switch of repeat play press the green button again. The symbol disappears.

Zoom feature

The Zoom feature allows you to enlarge the video image and pan through the enlarged image during play back from the HDD or from the time shift buffer.

- 1 During playback, press **PAUSE II** at the position where you want to enlarge the picture.
→ You will see a still picture.
- 2 Press **SYSTEM MENU**.
→ The 'System Menu' appears.
- 3 Press **▶** in line '**Toolbar**' to select '**Options**'.
- 4 Press **▼** to select '**Zoom**' and confirm with **▶**.
→ On the screen arrows appears to indicate the directions. If necessary switch on the info bar with **INFO**.
- 5 Select with **◀**, **▶**, **▲**, **▼** the area you want to enlarge.
 - **zoom in**
blue function button
 - **zoom out**
yellow function button
 - You can also pan in the enlarged picture using **▼**, **▲**, **◀**, **▶**.
- 6 End with the red function button.
→ Playback starts automatically

The media browser



Each recording stored on the HDD is displayed in the media browser with an index picture. A current recording (**REC/OTR** ●) that is not over yet (no TV Guide On Screen™ data available) is also displayed here.

Please observe that title/chapter editing is only possible to a certain degree with such recordings.


Title editing includes:

- change
- delete
- archive
- lock (child lock)
- protect (against automatic deletion)

Titles in the Time shift Buffer marked for storage on the HDD, can only be locked or deleted.

Symbols in the 'Media Browser'

If you call up the Media Browser with the **BROWSER HDD** button, following symbols can appear in the info bar at the top of the screen:

- ' The marked titles will be stored (archived) on a DVD+RW/+R.

Playback from the HDD

Change order for the media browser

You may choose only titles that meet certain criteria for the overview. This order will remain until you exit the media browser.

- 1 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 2 Press **◀**.
→ The 'Order Menu' appears.
- 3 Select one of the following options using **▼** or **▲** and confirm with **OK**.
 - **'Alphabetical':**
Alphabetic order
 - **'Recording date':**
Sorting according to the date of the recording
 - **'Delete order':**
Sorting according to the order of the automatic deletion. If there is too less space for new recordings on the HDD, this order shows which recordings will be automatically deleted first.
 - **'Protected':**
Order according to the recordings protected against deletion.
 - **'Last played':**
Sorting according to the titles last viewed.

Depending on the selected order, it may not be possible to select some titles.

Change title settings

Use this function to change the title settings.

- 1 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 2 Select the title you want to change with **▼**, **▲**.
- 3 Choose one of the following functions with the color buttons of your remote control:
 - **Delete title:**
red function button
The title (recordings) will be erased from the HDD.
 - **Archive title:**
green function button
The title will be transferred to DVD+RW/+R. If it is not possible to record on a DVD+RW/+R, an error message appears (disc not inserted,...).
If you want to archive several titles, mark the desired titles with **SELECT**. You can unmark the title using the same button.
 - **Lock title (child lock):**
yellow function button
Playback starts only if the right PIN code was entered. By default '0000' is defined as the PIN code. In the section 'Changing the PIN code' in chapter 'Access control (Child Lock)' you will find how you can change this code.
 - **Protect title against editing, automatic deletion:**
blue function button
An error message will appear if you try to edit this title. Automatically deletion will take place, if your HDD will run full with recordings. Stored recordings will be deleted in a certain order. See details in the section 'Symbols in the media browser'

Edit title

Use this function to adapt the title (recording) to your personal preferences.

- 1 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 2 Select the title whose settings you want to change with ▼ , ▲ .
Press **EDIT** .
- 3 Select one of the displayed functions with ▼ , ▲ and confirm with ► to proceed with the changes.

Depending on the selected function, you can choose different functions using the color buttons on the remote control. The function of the button may vary. Therefore, read the function in the help line before pressing the button.

- **'Title name'**
Change the name of the title.
- **'Clear chapters'**
All chapter markers within the selected title will be deleted.
- **'Video edit'**
Please read in the next chapter which modifications were possible.

'Video edit'

Here you can insert/clear chapter markers, hide chapters, merge chapters, or divide the title.



- 1 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 2 Select the title whose settings you want to change with ▼ , ▲ .
Press **EDIT** .
- 3 Select **'Video edit'** and confirm with ► .
→ Playback starts automatically.
- 4 Search the position where you want to make changes with ◀ , ▶ , ⏪ , ⏩ .

To enlarge the actual position of the timebar in several steps you can use ▲ . You can switch back using ▼ .

- 5 Press **PAUSE II** :
 - You can insert or remove chapter markers to find a scene easily with the **OK** button.
- 6 Choose one of the following functions with the color buttons of your remote control:
 - **'DIVIDE'**(red function button):
You can divide a title in as many parts as you like.
 - **'MERGE'**(green function button):
You can merge the current chapter with the previous chapter. (The previous chapter marker will be deleted). Please observe that you cannot use this function with titles.
 - **'KEYFRAME'**(yellow function button):
To select an index picture that designates this title in the media browser.
You can select this function only during still (button **PAUSE II**).
 - **'HIDE'**(blue function button):
You can hide or unhide certain chapters during playback (e.g. unwanted scenes).

Playback from the HDD

Editing recorded titles (name)

From the TV Guide On Screen™ data the title (name) of a TV show will be taken automatically (e.g. 'ROCKY'). Otherwise, only the program number (program name) and the time will be stored as the name of the recording. The name of the recording can only be changed after the recording has finished.

- 1 If necessary, press **STOP** ■ to stop playback.
- 2 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 3 Use ▲ or ▼ to select the title whose title you want to edit.
- 4 Press **EDIT** .
→ The title edit menu appears on the screen.
- 5 Select the line '**Title name**' and confirm using ► .
→ The field for editing the title appears.
- 6 Use ► or ◀ to select the position where the letter/number/icon is to be changed or re-entered.
- 7 Change the icon using ▲ or ▼ .
 - You can switch between upper and lowercase using **SELECT** .
 - You can clear all characters using the red function button ('**CLEAR**').
 - You can stop editing without storing the change by pressing the green function button ('**CANCEL**').

Enter characters using 0..9

Keep pressing the number button until the desired character or number is displayed. You can select language-dependent special characters at the corresponding letter using ◀◀ or ▶▶ e.g.: ä, press 2 for a and keep pressing ▶▶ until ä appears.

For special characters, press 1 several times.

The position for the following character is selected automatically.

Press 1 to insert an empty space.

Press the red function button to delete.

- 8 Repeat 6 and 7 until you have made the changes you want.
- 9 Save the new name with **OK** .
- 10 To end, press **EDIT** .

Divide title

You can divide a title in several parts (titles) as large as you like. Each of these parts (titles) is designated by a separate index picture. You can also use this function to separate and delete an undesired end of the recording (commercial).

Warning! You cannot undo this division!

- 1 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 2 Select the title you want to divide using ▲ or ▼
- 3 Press **EDIT** on the remote control.
→ The title edit menu appears on the screen.
- 4 Select the line '**Video edit**' and confirm with ► .
→ Play back starts automatically
- 5 Search the position you want to divide the title using ◀◀ , ▶▶ . Press **PAUSE II** on the remote control.
→ You will see a still picture.
To find the right position you can step a frame forward or backward using the ◀ , ▶ button.
- 6 Press the red function button
→ A message appears on the screen saying that the title is being divided.
→ The divided title will appear in the media browser with a new index picture. The last position in the name will increase by one.

This completes the division of the title.

Delete titles/recordings from the HDD

You can remove titles/recordings from the HDD to use the capacity from the HDD for new recordings.

- 1 Press **BROWSER HDD** on the remote control.
→ The Media Browser appears.
- 2 Select the title/recording you want to delete using ▲ or ▼
- 3 Press the red function button (**'DELETE'**)
→ A note appears if you really want to delete this title.

If the red function button has no function ('DELETE' appears grey) check if the title is protected. You will see this on the symbol '✓' on the screen.

Unprotect the title using the blue function button.

- 4 Select **'Yes'** using ◀ and confirm with **OK**.
→ The title is being deleted from the HDD.
- If the message window was closed, confirm the line with ▶ again.

Insert/remove chapter markers

To find your special scenes in one title faster, you can insert chapter markers. These markers can also be deleted.

- 1 Press **BROWSER HDD** on the remote control.
→ The 'Media Browser' appears on the screen.
- 2 Select the title you want to modify using ▼, ▲.
- 3 Press **EDIT** on the remote control
→ The title editing menu appears on the screen.
 - If you want to remove all automatically created chapter markers confirm select the line **'Clear chapters'** and confirm with ▶.
- 4 Select the line **'Video edit'** and confirm with ▶.
→ Play back starts automatically.
 - **Insert chapter markers**
 - Search the position where you want to insert a marker with ◀, ▶, ◀◀, ▶▶.
 - Press **PAUSE II**.
 - Press **OK**. The marker will be inserted.
 - **Remove chapter marker**
 - Press **PAUSE II**.
 - Search the chapter marker you want to remove with ◀◀, ▶▶.
 - Press **OK**. The marker will be deleted.
- 5 End with **EDIT**.
→ You will go back to the Media Browser.

Playback from the HDD

Hide chapters (sections)

By default, all chapters are visible. You can hide or unhide certain chapters during playback (e.g. unwanted scenes).

In the editing mode, you will recognize a hidden chapter by a grey background and the description of the blue function button:

- **'HIDE':**
Chapter is visible and can be hidden with the blue button.
- **'SHOW':**
Chapter is hidden and can be made visible with the blue button.

To hide a certain scene, proceed as follows:

- 1 Press **BROWSER HDD** on the remote control.
→ The 'Media Browser' appears on the screen.
- 2 Select the title you want to edit using ▼ , ▲ .
- 3 Press **EDIT** on the remote control.
→ The title edit menu appears on the screen.
- 4 Select **'Video edit'** with ▼ and confirm with ► .
→ Play back starts automatically
- 5 Search the beginning of the scene (section) you want to hide using ►► , ◀◀ , ◀ , ► . Press **PAUSE II** .
- 6 Set the start marker with the blue function button.
→ The description of the function key changes from **'HIDE'** to **'STOP HIDE'**.
- 7 Search for the end of the scene (section).
 - Use ►► , ◀◀ , ◀ , ► to search for the end of the scene.
 - The area is being marked.

- To enlarge the actual position of the timebar in several steps you can use ▲ . You can switch back using ▼ .
- To find the right position you can step a frame forward or backward using the ◀ , ► button.
- To select the end of the title use ►►

- 8 Press **PAUSE II** at the corresponding position.
- 9 Set the end marker with the blue function button.
 - The 'hidden' area is greyed out.
 - The description of the blue function key changes to **'HIDE'** .
End with **EDIT** .
 - Additionally to the original title the edited title appears in the 'Media Browser'.
You can delete the edited title without deleting the original one.
If the original title is being deleted, the edited title will be also deleted.

During playback, the 'hidden' scene is skipped. If you want to archive the title you can decide to archive the original title or the edited one.

- **Archiving of the 'edited' title**
The 'hidden' scenes were not copied on the DVD+RW/+R.
- **Archiving of the 'original' title**
The 'hidden' scenes were copied as 'hidden' on the DVD+RW/+R. How you can make them visible again you can read in the chapter 'Managing the disc content'.

Archiving (storing) titles on a DVD+RW/+R

You can choose the title of the HDD that you want to transfer on a DVD+RW/+R. The copying process is done at a higher speed than the recording. Therefore, you can transfer an 8-hour recording in 'M8' recording mode on a DVD+RW/+R in just 30 minutes. This time depends on the recording mode used.

Please observe the following information:

- You cannot change the recording quality. You can only use the same recording quality that was used for recording on the HDD.
 - New recordings will always be added at the end of existing ones. Ensure that the 'Empty title' after the last recording is large enough.
 - The index picture from the title will be copied from the HDD and stored on the disc.
 - Should you reach the maximum number of chapters per disc (255), the recordings will be transferred without chapter markers.
 - The following information will also be stored on the disc in the process:
Chapter, recording mode, program name (if available) title of the recording (name), date and time of the recording, index picture.
 - If you archive the edited title, the 'hidden' chapters will be skipped and will no longer be available on the DVD+RW/+R.
- 1 Change the titles in the media browser to meet your preferences. (divide titles, change title name, hide chapter, ...)
 - 2 Insert a DVD+RW/+R on which you want to store the selected titles.
Please ensure that:
 -) the DVD+RW was not protected against accidental recordings. For more information, read the next section 'Preventing accidental erasing of discs'.
 -) there is enough space for all selected titles at the end of the DVD+RW/+R.
 - 3 Press **BROWSER HDD**.
→ The media browser appears with an overview of all recordings on the HDD.
 - 4 Select the title you want to copy on the DVD+RW/+R using ▼, ▲.
 - If you want to archive several titles at a time, mark the desired titles with **SELECT**.

What is the order of archiving?

The titles will be transferred to the DVD+RW/+R in the same order as they were selected using the **SELECT** button.

- 5 Start the archiving process by pressing the green function button.

If this button is not visible on the screen, check if this title is available in the 'Time shift Buffer'. If necessary switch of the set using **STANDBY** or use the 'Flush Buffer' function (button **SYSTEM MENU**, menu 'Set up')

- A message indicating the process appears both on the screen and in the display.
- During and after the archiving process, you see the TV show of the currently selected TV channel. The buttons ◀, ▶, **JUMP BACK**, **JUMP FWD**, **PLAY ▶**, **PAUSE II** are without function during archiving. Timer recordings will take place.

Interrupt the process

Press the yellow function button. If necessary call up the information on the screen using the **INFO** button.

Finalizing a DVD+R

If recordings were stored (archived) on a DVD+R you have to finalize it to make play back in a DVD-Player possible.

- Press **DISC MENU** and then **STOP ■** to mark the first title.
- Press ▲ to go to the 'disc info screen'
- Press ▶ and select then the line 'Finalize disc' using ▼.
- Confirm with **OK**.

Protect disc against accidental recordings

To prevent an accidental erasing of important recordings, you can protect the entire disc. It is only possible to protect the entire disc. Protecting specific recordings on a disc is not possible.

What happens with DVD+R discs?

As long as these discs are not finalized, you can protect them against accidental recording.

- 1 Insert the disc to be protected.
- 2 Press **STOP ■** on the remote control while the index screen is displayed.
→ The first title is highlighted.
- 3 Press ▲.
→ This takes you to the disc info screen.
- 4 Press ▶.
Select '**Protection**'.
Confirm with ▶.
- 5 Select '**Protected**' using ▼ and confirm with **OK**.
- 6 Press ◀ and then **DISC MENU** to terminate.
→ The entire disc is now protected.
If you attempt to record on a protected disc, 'DISC LOCKED' will appear on the display and '**Disc locked**' on the screen.

If you decide later to record on this disc again, repeat the above steps but select '**Unprotected**' at step 5.

Playback from a disc

General notes on playback

With this DVD recorder you can play back the following systems:

-) DVD Video
-) (Super)Video CD Disc
-) DVD+RW Disc
-) DVD+R Disc
-) DVD-RW (video mode, finalized)
-) DVD-R
-) CD-R
-) CD-RW
-) Audio CD
-) MP3-CD

You can operate the video recorder using the remote control or the buttons on the front of the DVD recorder.

* **The display will read 'PIN'**

- ✓ The child lock has been activated for the inserted disc. Read the sections on 'Child lock' and 'Releasing a disc' in the chapter on 'Access control (child lock).

* **The menu on the screen is showing an 'X'**

- ✓ Some DVD discs can be manufactured so that certain steps are required before the disc can be played, or so that only limited operation is possible during playback. When an 'X' appears on the screen the selected feature is not possible.

* **The screen is showing regional code information**

- ✓ Since DVD films are not normally released in all parts of the world at the same time, all DVD players have a specific regional code. Discs can be given a regional code. If the regional codes differ between the player and the disc, playback is not possible.
- ✓ The regional code is shown on the label on the back of the machine.
- ✓ The regional code does not apply to recordable DVDs.

* **I can see the message 'EMPTY DISC'**

- ✓ The disc does not contain any recordings.

* **'DISC ERROR' will appear on the display**

- ✓ Recording could not be completed correctly because of a disc error. Check the disc and clean it if necessary.

* **A dialog box appears asking you whether you want to delete the contents or eject the disc**

- ✓ The disc inserted is a DVD+RW but its contents are not DVD video-compatible (e.g. a data disc). Recordings on this disc can only be made if the entire disc is first deleted with the **REC/OTR** button.

Switch over to the actual TV channel during playback

As soon as you turn on the DVD recorder, the currently selected TV channel on the DVD-Recorder is recorded in a temporary storage (Time shift Buffer).

Recordings in the time shift buffer will be automatically deleted e.g. after 3 hours if the period of the time shift buffer is set to 3 hours (factory setting).

You can play back a disc, while the current TV show is still being recorded.

- 1 To interrupt playback from a disc, press **TUNER**
 - You will see the TV-show from the selected TV channel on the DVD-recorder
- 0 To continue playback, from the disc press **DISC MENU**.

Inserting a disc

- 1 Press the **OPEN/CLOSE** button on the front.



- The disc tray will open. While the disc tray is opening, the display shows 'OPENING' and then 'TRAY OPEN' when the tray is fully open.

- 2 Carefully place the disc in the tray with the label facing up and press **PLAY** or **OPEN/CLOSE**.
 - 'CLOSING' and then 'READING' will appear in the display. The information on the disc will be read.

How do I insert a double-sided DVD?

Double-sided discs do not have labelling over the whole surface. The labelling for each side is in the centre of the disc. To play a side its label must be facing up.

Opening/closing the tray using the remote control

You can open and close the disc tray using the remote control. Press and hold the **STOP** button on the remote control until the dialog box shows 'OPENING' or 'CLOSING'.

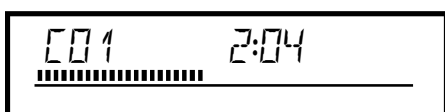
Playing a DVD video disc



A menu may appear when a DVD is played back. If the titles and chapters are numbered, press a number button on the remote control.

- You can also use the ◀, ▶, ▲, ▼ buttons or number buttons 0..9 to select a menu item and confirm with OK.
- You can also access the menu using **DISC MENU** on the remote control.

- 1 If playback does not start automatically, press **PLAY ▶**.
→ title/chapter number, elapsed time will appear on the display.



- 2 To stop playback, press **STOP ■** on the remote control or **■** on the DVD recorder.
- 3 To remove the disc, press **OPEN/CLOSE ▲** on the front of the DVD recorder.

Playing a DVD+RW/ +R disc



- 1 If the disc is write-protected or a finalized DVD+R disc, playback starts automatically.



- 2 If playback does not start automatically, use the ▼ or ▲ button to select the title you want to play on the index screen. You can also use the **DOWN** or **UP** button on the front.

With ◀◀, ▶▶ you can jump to the begin or the end of the index screen.

- 3 Press the **PLAY ▶** button.
→ title/chapter number, elapsed time will appear on the display.

× I can see the message 'EMPTY DISC'
✓ The disc does not contain any recordings.

- 4 To stop playback, press **STOP ■** on the remote control or **■** on the DVD recorder.
- 5 To remove the disc, press **OPEN/CLOSE ▲** on the front of the DVD recorder.

Playing an audio CD



You can also use the DVD recorder to play audio CDs

If the TV is on, the audio CD screen appears automatically. During playback, the current track number and its elapsed playing time will show on the TV screen and on the recorder display.

- 1 Insert an audio CD.
→ Playback starts automatically.
- 2 Stop playback using **STOP ■**.
→ The number of tracks and the total time are displayed.

Playback from a disc

Playing an MP3 CD

MP3 (MPEG1 Audio Layer-3) files are highly compressed music files. Using this technology the data volume can be compressed by a factor of 10. This means it is possible to record 10 hours of music in CD quality on a single CD-ROM.

When creating MP3 CDs please note the following:

File system: ISO9660

Directory structure: maximum of 8 levels

Formats: *.mp3

Filenames: maximum of 12 characters (8+3)

Maximum of 32 albums, 999 titles

Supported sampling frequencies: 32, 44.1, 48 (kHz). Music with sampling frequencies other than these will be skipped.

Supported bit rates: 32, 64, 96, 128, 192, 256 (kbit/s)

ID3 Tag: Version 1, 1.1. In later versions the directory name is displayed as the album and the filename as the title.

Important notes for playback:

Only the first session of a multi-session CD will play back.

- 1 Insert an MP3 CD.
 - Playback starts automatically.

MP3 CD display

If the TV is on, the MP3 CD screen appears automatically.

During playback, the current track number and its elapsed playing time will be shown on the TV screen and on the recorder display.

*During stopped playback (**STOP ■** button) the numbers of the albums will be shown on the TV screen and on the display.*

Further information on the album, track and artist will also be displayed if included in the ID tag.

- 2 Stop playback using **STOP ■**.
 - The number of albums is displayed in the display.
 - Using **⏮** or **⏭** select the next or previous title.
 - You can also use the **T/C** button to select titles and albums.
 - Press the **T/C** button and use the **▶** or **◀** button to select the 'T' symbol for title or 'C' for chapter. Use the **▼** or **▲** buttons or the number buttons **0..9** on the remote control to select the number of the title/chapter.
 - You can also use the repeat functions (**SELECT** button).

Playing a (Super) Video CD



(Super) Video CDs may be equipped with PBC (Play Back Control). This means that special playback functions (menus) can be directly selected. The video CD must be PBC compatible (see CD case). 'PBC' is active in the default settings.

- 1 Insert a (Super) Video CD.
 - If the **■** symbol appears in the display, start playback by pressing **PLAY ▶**.
 - If a menu appears on the screen, use the remote control buttons indicated on the screen to select the menu option you want (PREV= **⏮**, NEXT= **⏭**) or with the number buttons **0..9**.
 - If a PBC menu consists of a list of titles, you can select a title directly.
 - Use **RETURN** to go back to the previous menu
- 2 Stop playback using **STOP ■**.

General

DVD's are divided in titles and chapters.

- During playback, press **▶▶** to go to the next title. If there are several chapters within a title, the next chapter.
- Press **◀◀** to return to the start of the current title/chapter.
- Press **◀◀** twice to return to the start of the previous title/chapter.

Use the T/C (title/chapter) button

- Press **T/C** (title/chapter) and then use **▲** or **▼** to select the appropriate title.
- Make sure the symbol 'T' (title) is selected in the menu bar.
- Use **T/C** to select chapters within a title. Press **T/C** and use **▶** to select the 'C' symbol (chapter).
- Now select the appropriate chapter with **▲** or **▼**.

Searching a disc

You can search the disc for a recording at 4x, 8x or 32x playback speed. Other speeds can only be selected via the menu bar (**▶▶▶**).

- 1 During playback, press and hold **◀◀** (reverse) or **▶▶** (forwards) to switch to the search feature.
 - You can switch between the playback speeds using **◀◀ / ▶▶**.
- 2 To continue playback, press **▶▶▶** at your chosen location.

* No sound

- ✓ The sound is switched off in search mode. This is not a fault in your machine.

Search feature via menu bar

- During playback press **SYSTEM MENU** on the remote control. The menu bar will appear at the top of the screen.
- Select the **▶▶▶** symbol using **▶** or **◀** and confirm with **▼**.
- You can now use the **◀** or **▶** button to select different forward and backward search speeds.
- If necessary, switch the menu bar off with the **SYSTEM MENU** button.
- To continue playback, press **▶▶▶**.

Still picture

- 1 During playback, press **PAUSE II** to stop playback and display a still picture.



Frame advance via menu bar

- During a still picture press **SYSTEM MENU** on the remote control. The menu bar will appear at the top of the screen.
- Select the '◀▶' symbol using **▶** or **◀** and confirm with **▼**.
- You can now use the **◀** or **▶** button to go forwards or backwards one frame at a time.
- If necessary, switch the menu bar off with the **SYSTEM MENU** button.

- 2 To continue playback, press **▶▶▶**.

Slow motion

- 1 During playback press **PAUSE II** on the remote control. Now hold down **◀◀** or **▶▶** to switch to slow motion.

- You can switch between different speeds using **◀◀** or **▶▶**.

Slow motion via menu bar

- During playback press **PAUSE II** and then **SYSTEM MENU** on the remote control. The menu bar will appear at the top of the screen.
- Select the **▶▶▶** symbol using **▶** or **◀** and confirm with **▼**.
- You can now use the **◀** or **▶** button to select different forward and backward slow motion speeds.
- If necessary, switch the menu bar off with the **SYSTEM MENU** button.

- 2 To continue playback, press **▶▶▶** twice.

Search by time

Using this feature you can select where playback should start (select elapsed time).

- 1 During playback press **SYSTEM MENU** on the remote control.
 - The menu bar will appear at the top of the screen.
- 2 Select the '⌚' symbol using **▶** or **◀** and confirm with **▼**.
 - Playback is stopped and a box appears on the screen showing the elapsed time.
- 3 Enter the start time with the digit keys **0..9** from where playback should start.
- 4 Confirm with **OK**.

* The time entered will flash on the screen

- ✓ The selected title is shorter than the time entered. Enter a new time or cancel the function by pressing **SYSTEM MENU**.

- 5 Playback starts at the time you entered.

Additional playback features

Repeat/Shuffle play

You can mark entire sections or the whole disc for endless playback. Depending on the type of disc (DVD video, DVD+RW, video CD) you can select a chapter, title or the entire disc.

- 1 Select the desired chapter, title or the entire disc and start playback.
- 2 During playback, press **SELECT**. By pressing **SELECT** again you can chose from the following options:
 - 'chapter': repeat chapter (DVD only)
 - 'title': repeat track/title
 - 'repeat': repeat entire disc (Video CD, Audio CD only)
 - 'shuffle': Shuffle
 - Display disappears: no repeat
- 3 To end the repeat, press the **STOP** button.
 - You can also keep pressing the **SELECT** button until the displays disappear.

Repeating a passage (A-B)

You can repeat a particular passage within a title/chapter. You need to indicate the start and end of the passage.

- 1 During playback press **PAUSE II** at the start point.
 - You will see a still picture.
- 2 Keep pressing **SELECT** until 'A-B' appears on the screen.
 - The start point is now saved.
- 3 Press **PLAY** to start playback.
- 4 When the end point is reached press **OK**.
 - 'A-B' appears on the TV screen.
 - Playback now takes place within these points.
- 5 To end the repeat, press the **STOP** button.
 - You can also keep pressing the **SELECT** button until the displays disappear.

Scan feature

This feature plays back the first 10 seconds of each chapter (DVD) or track (CD).

- 1 During playback, press **SELECT**. Select 'scan' using **SELECT**.
 - After 10 seconds the DVD recorder switches to the next chapter/index.
- To start playback at the relevant chapter/index press **STOP** and then **PLAY**.

Camera angle

If a DVD contains scenes that have been shot from different camera angles you can select these camera angles for playback.

- 1 During playback, press **PAUSE II**.
 - You will see a still picture.
- 2 Press **SYSTEM MENU** and select the 'camera angle' icon using **▶**.
 - × **The 'camera angle' symbol will be hidden**
 - ✓ *The selected scene has been shot from only one camera angle. This feature is therefore not available. For more information please read the cover of your DVD disc.*
- 3 Select the required camera angle with **▼** or **▲**.
 - You can also directly enter the number with the number buttons **0..9**.
 - After a short time, playback will resume from the new camera angle.
 - The 'camera angle' symbol will remain visible until a scene starts for which there is only one camera angle.

Zoom feature

The Zoom feature allows you to enlarge the video image and pan through the enlarged image.

- 1 During playback, press **PAUSE II**.
 - The DVD recorder switches to 'PAUSE'. You will see a still picture.
- 2 Press **SYSTEM MENU** and select the 'zoom' icon using **▶**.
- 3 Select the required zoom factor using **▼** or **▲**.
 - When 'press OK to pan' appears on the screen, the zoom process is complete.
- 4 Press **OK**. Using **▲**, **▼**, **▶**, **◀** select the part of the image you wish to view.
- 5 Confirm with **OK**.
- 6 To stop the feature, press **PLAY** and then **SYSTEM MENU**.

Select the audio language

Many pre-recorded DVD discs have more than one audio language. The language initially selected for playback will be the one you selected when you first set up the DVD recorder. However you can change the audio language of the inserted disc at any time.

You can change the audio language either using the menu of the inserted disc (**DISC MENU** button) or the DVD recorder's menu bar (**SYSTEM MENU** button). The audio languages for DVD playback in the two menus may be different. Please note that with some DVDs the audio language and/or subtitle language can be changed only via the DVD menu.

- 1 During playback press **SYSTEM MENU** and select the '⏏' icon using **▶** .
- 2 Select the required audio language using **▼** or **▲** .
 - You can also enter the number directly using the number buttons **0..9** .

→ Play continues in the new audio language.

Subtitles

Many pre-recorded DVD discs have more than one subtitle language. The language initially selected for playback will be the one you selected when you first set up the DVD recorder. However you can change the subtitle language of the inserted disc at any time.

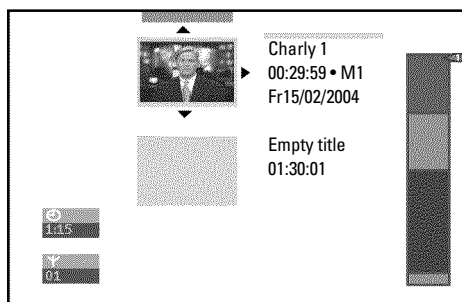
You can change the subtitle language either using the menu of the inserted disc (**DISC MENU** button) or the menu bar (**SYSTEM MENU** button). The subtitle languages in the menus may differ.

- 1 During playback press **SYSTEM MENU** and select the '⏏' icon using **▶** .
- 2 Select the required subtitle language using **▼** or **▲** .
 - You can also enter the number directly using the number buttons **0..9** .
 - You can switch off subtitles again with **0** or by pressing '**off**' .

→ Playback continues in the new subtitle language.

Managing the disc contents

General



When a recording is made to disc, the following additional information is also stored at the beginning of the recording:

-) Name of the recording
If the TV station does not transmit a name, only the channel and time will be stored as the name
-) Name of the recording
If a name has not been assigned to the TV channel, only the program number and time are stored as the name
-) Length of the recording
-) Record type (Quality)
-) Date of the recording
-) Index picture of the recording

A marker will be set every 5-6 minutes if the '**Auto chapters**' function is activated in the '**Record settings**' menu. This marker is known as a 'chapter'.

These markers can be changed when the recording has finished.

Can markers be set on a DVD+R disc?

Markers can be set on these discs if they have not been finalized.

It is also possible to add 'chapters' later. This means that scenes you do not want to see during playback can be hidden or skipped. During playback you can watch your recording as a continuous sequence without the hidden chapters.

Favorite Scene Selection

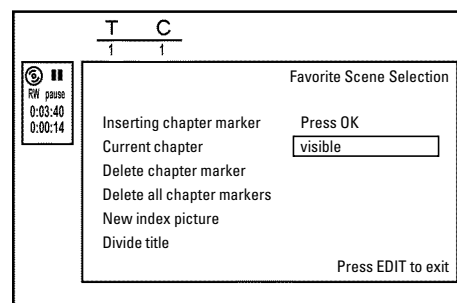
In this menu you can adapt a title to suit your particular needs. You can insert/delete chapter markers, hide chapters, select a new index, or split up a title.

In this menu you can adapt a title on a DVD+RW/+R to suit your particular needs. You can insert/delete chapter markers, delete all chapter markers, or split up the title. Press **EDIT** on the remote control during recording to open this menu.

Insert chapter markers

During recording, you can set or delete chapter markers within a title. The maximum number of chapters per disc is 255 and 99 per title. If one of these limits is reached the following message will appear on the screen: '**Chapter limit**'. You need to delete some markers before you can insert new ones or make recordings.

- 1 During playback, press **EDIT** on the remote control at the appropriate point.
→ The '**Favorite Scene Selection**' menu appears on the TV screen.



- 2 Confirm '**Inserting chapter marker**' by pressing **OK**.
→ '**Inserting marker**' appears on the TV screen.

'X' will appear on the screen:

This DVD is write-protected or the disc is a finalized DVD-R. Subsequent changes cannot be made.

- 3 To stop this function, press **EDIT**.

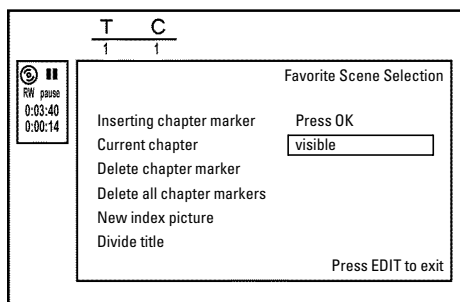
Hiding chapters

Initially, all the chapters are visible. You can hide chapters for playback (e.g. unwanted scenes) or make them visible again. In editing mode, hidden chapters are shown darker.

A chapter always consists of a start marker and an end marker.

To hide a certain scene, proceed as follows:

- 1 Search the beginning of the scene you want to hide. Press **PAUSE II**.



- 2 Press **EDIT** on the remote control to call the '**Favorite Scene Selection**' editing menu.
- 3 Set the start marker using **OK**.
→ The number of chapters ('C') in the menu line will increase by one.
- 4 Search for the end of the scene.
 - You can also use **▶▶** or **◀◀** to search faster for the end of the scene.
Make sure that you do not jump into the next title (title number 'T' must not change).
 - Only chapters within a title can be hidden.
- 5 Press **PAUSE II** at the corresponding position.
- 6 Set the end marker with **OK**. This will also be the start marker of the next chapter.
→ The number of chapters ('C') in the menu line increases by one.

* **The number of chapters ('C') has increased by two or more numbers**

✓ This is the case when you want to hide a chapter that, due to automatic chapter numbering (if switched on), stretches over two or more chapters. In this case, you must delete the start of the automatically generated chapter:

- Press **T/C** twice while the editing menu is displayed to change the chapter number.
- Select the chapter between the new markers using **▼** or **▲**. Press **PAUSE II**.
- Select '**Delete chapter marker**' with **▼** to delete the current chapter marker. Confirm with **OK**. The current chapter number decreases by one.

- 7 Press **T/C** twice to change the chapter number 'C'.
- 8 Select the previous chapter with **▼**, since you are already in the next chapter (end of the chapter is also the beginning of the next chapter).
- 9 Wait until the chapter has been played and press **PAUSE II** to stop playback.
- 10 Select '**Current chapter**' using **▼** or **▲**.
- 11 Using **▶** select '**hidden**'.
→ The picture is shown darker.

Switching quickly

You can switch between show chapters ('**visible**') and hide chapters ('**hidden**') quickly and easily using **SELECT**.
This function is independent from the selected line.

- 12 To end, press **EDIT**.

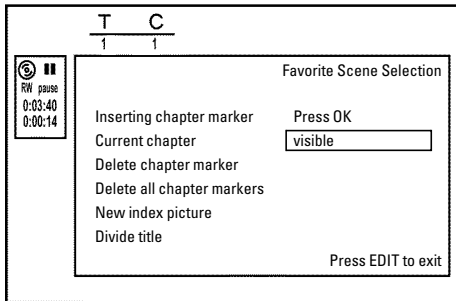
During playback this chapter will be skipped.

If the chapter is not visible, select '**visible**' in step 11 with **▶**.

Managing the disc contents

Deleting chapter markers

Within a title you can delete either all markers or individual markers.



- 1 While the relevant chapter is playing, press **EDIT** on the remote control.
→ The '**Favorite Scene Selection**' menu appears on the TV screen.

How can I select different chapters?

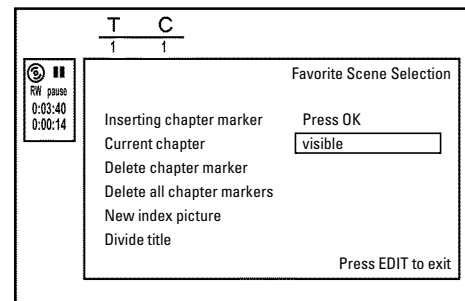
- Press the **T/C** button on the remote control. Titles and chapters are displayed at the top of the screen.
- Select title (T) or chapter (C) with **▶** or **◀**.
- Use **▲** or **▼** to select the title/chapter channel you want to edit.

- 2 Use **▼** to select:
 - line **Delete chapter marker** for this chapter
 - line **Delete all chapter markers** for all chapters within the selected title.
- 3 Confirm with **OK**.
 - You will be prompted to press **OK** again to make sure you really want to delete all markers.
 - If you do not want to, press the **◀** button.
- 4 To end the menu, press **EDIT**.

Changing the index picture

Normally the picture from the beginning of a recording is used as the index picture. You can however choose any picture from the recording as the index picture.

- 1 During playback, search for location of the new index picture. Press the **PAUSE II** button.
- 2 Press the **EDIT** button.
→ The '**Favorite Scene Selection**' menu appears on the TV screen.



- 3 Select line '**New index picture**' and confirm with **OK**.
- 4 Start the change with **OK**.
→ '**Updating menu**' appears on the TV screen.

Once the revision has been completed successfully the DVD recorder reverts to the index overview.

Dividing titles

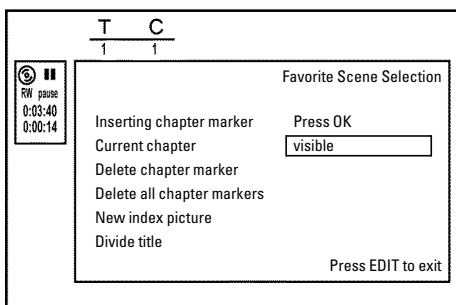
You can divide a title into several sections (titles) of any size. Each of these sections (titles) is identified by its own index.

Note: This division cannot be undone.

Can I divide titles on DVD+R discs?

As recordings on DVD+R discs cannot be overwritten, it is not possible to divide titles on DVD+R discs.

- While the relevant title is playing, press **EDIT** on the remote control.
→ The '**Favorite Scene Selection**' menu appears on the TV screen.

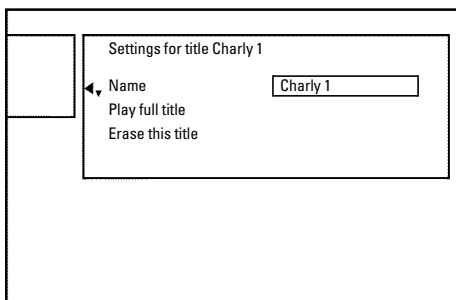


- Select '**Divide title**' and confirm with the **OK** button.
- If you are sure, press **OK** to start the process.
→ '**Dividing title**' appears on the TV screen.
- Wait until the new title is displayed with an index picture in the index picture overview.

The process of splitting the title is now complete.

Editing recording titles (name)

- If required, press the **STOP** button to interrupt playback.
- Using **▲** or **▼** select the title whose name you want to edit and confirm with **▶**.
→ The menu for editing names appears.



- Select '**Name**' using **▲** or **▼** and confirm with **▶**.

- Using **▶** or **◀** select the position where the letter/number/icon is to be changed/re-entered.
- Change the icon using **▲** or **▼**.
 - You can switch between upper and lowercase using **SELECT**.
 - You can delete the character using the red function button.

How can I enter the characters with the buttons 0..9?

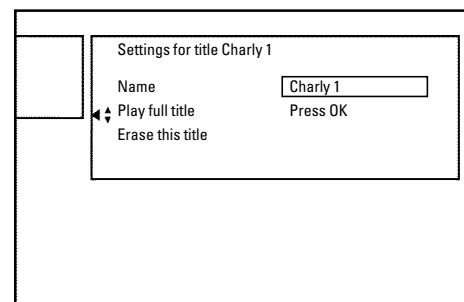
Press a number button as often as the required character or the number appears. You can enter language dependent characters with the buttons **◀◀** or **▶▶** on the corresponding character e.g.: **ä**, button **2** for 'a' and then with **▶▶** as often as 'ä' appears. For special characters press the button **1** repeatedly. The position for the following character will be selected automatically. To enter a space press the button **1**. To erase a character press the red function button.

- Repeat **4** and **5** until you have made the changes you want.
- Save the new name with **OK**.
→ '**Storing name**' appears on the TV screen for confirmation.
- To end, press **◀**.

Playing the entire title

If you have hidden certain sections (chapters) of a title, this setting lets you watch the entire title including the hidden sections. To do this, proceed as follows:

- Press the **STOP** button or during playback press **DISC MENU**.



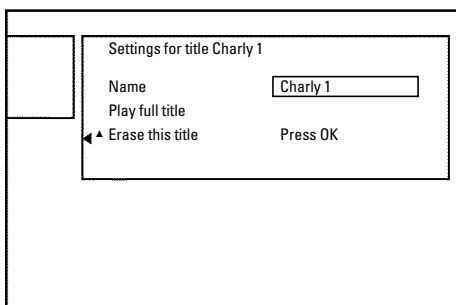
- Using **▲** or **▼** select the title you want to play all of and confirm with **▶**.
→ The title editing menu will appear.
- Select '**Play full title**' using **▲** or **▼** and confirm with **OK**.
→ Playback starts automatically. The title is played in its entirety - including the hidden chapters.

Managing the disc contents

Erasing recordings/titles

You can erase specific recordings from a disc.
Please note: If there is an **'Empty title'** between titles, this space can not be used from this DVD-Recorder.
Each recording from the HDD to a DVD+RW/+R (archiving) will be added at the end of existing recordings

- 1 Press the **STOP** ■ button or during playback press **DISC MENU** .
- 2 Using ▲ or ▼ select the title you want to delete and confirm with ► .
→ The title editing menu will appear.

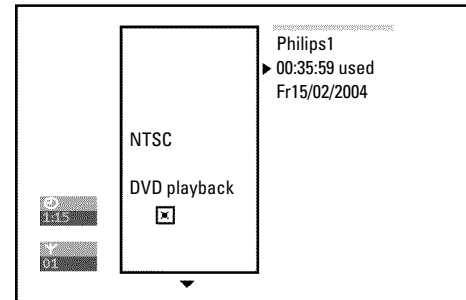


- 3 Select **'Erase this title'** using ▲ or ▼ and confirm with **OK** .
→ **'This will completely erase this title'. 'Press OK to confirm'** appears on the TV screen.
 - If you want to delete this title, press **OK** to confirm.
 - Otherwise press ◀ .
- 4 **'Erasing title'** appears on the TV screen.
- 5 At this point **'Empty title'** appears in the 'index picture display'. A new recording can now be made here.
If the deleted title was very short (less than 1 minute) **'Empty title'** will not appear at this point.

Can titles be deleted from a DVD+R disc?

*Titles on DVD+R discs are only marked as deleted. **'Deleted title'** will appear in the display instead of **'Empty title'**. During playback the **'deleted'** title is skipped. The space used for this title cannot be used again as the title has not been physically deleted. Once the disc has been finalized no further changes can be made.*

Disc settings



This screen appears **before** the first title and contains general information about the current disc.

You can:

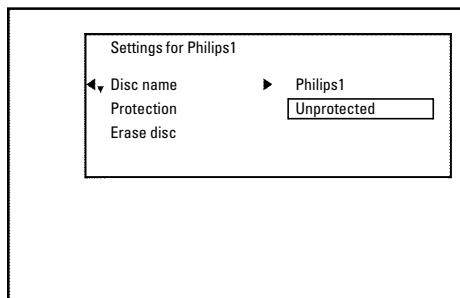
- change the name of the disc
- activate or deactivate write protection on the disc
- Finish editing (make the disc DVD compatible)
- finalize a DVD+R
- delete a DVD+RW

To get to this display, proceed as follows:

- 1 Press the **STOP** ■ button or during playback press **DISC MENU** .
- 2 Select the first title with ▲ or press **STOP** ■ . **STOP** ■ .
- 3 Press ▲ .
→ The disc info display will appear.

Changing the disc name

- In the 'Disc info display' press **▶**.
→ The '**Settings for**' menu appears on the TV screen.



- Select '**Disc name**' using **▲** or **▼** and confirm with **▶**.
- Using **▶** or **◀** select the position where the letter/number/icon is to be changed/re-entered.
- Change the icon using **▲** or **▼**.
 - You can switch between upper and lowercase using **SELECT**.
 - You can delete the character using the red function button.
- Repeat **3** and **4** until you have made the changes you want.
- Save the new title with **OK**.
→ '**Storing name**' appears on the TV screen for confirmation.
- To end, press **◀**.

Finishing editing

If one or more titles have been edited a DVD player may still display the original titles. You can prepare your DVD+RW disc in such a way that a DVD player will be able to play the edited version.

- In the 'Disc info display' press **▶**.
→ The '**Settings for**' menu appears on the TV screen.
- Select '**Make edits compatible**' using **▲** or **▼** and confirm with **OK**.
 - * 'Make edits compatible' does not appear**
 - ✓ Your disc is already compatible. There is no need for conversion.
To end, press **SYSTEM MENU**.
- The screen displays '**This will take**' to show how long the process will last.
- To confirm press **OK**.
→ '**Working...**' appears on the TV screen.
→ bar will move from left to right indicating progress.

Finalizing DVD+R discs

This feature is required to play back a DVD+R disc in a DVD player. Once the disc has been finalized no further recordings or changes can be made.

- In the 'Disc info display' press **▶**.
→ The '**Settings for**' menu appears on the TV screen.
- Select '**Finalize disc**' using **▲** or **▼** and confirm with **OK**.

* '**Finalize disc**' does not appear

✓ Either there is no DVD+R disc inserted or the disc is already finalized.
To end, press **SYSTEM MENU**.

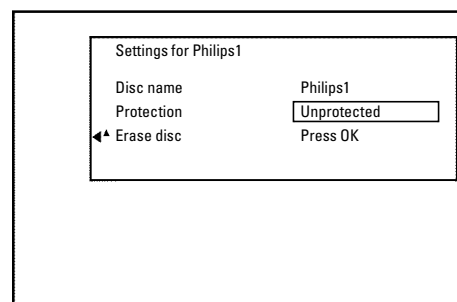
* **The 'Settings for' menu does not appear**

✓ The menu may not appear if the disc has been recorded on another DVD recorder. In this case, use the '**Finalize disc**' feature in the '**⏮**' menu, under '**Features**'.

- The screen displays '**This will take...**' to show how long the process will take.
- To confirm press **OK**.
→ '**Working...**' appears on the TV screen.
→ A bar will move from left to right indicating progress.

Erasing DVD+RW Disc's

- In the 'Disc info display' press **▶**.
→ The '**Settings for**' menu appears on the TV screen.



- Select '**Erase disc**' using **▲** or **▼** and confirm with **OK**.
→ '**This will erase all titles Press OK to confirm**' appears on the TV screen..
- If you want to delete all the titles, press **OK** to confirm. Otherwise press **◀**.
→ '**Erasing disc**' appears on the TV screen.
After deletion, the index picture display shows the free space on the disc.

If the disc is empty already, you cannot select '**Erase disc**'.

Disc Manager (DM)

General information

The 'Disc Manager' is an integrated database in the DVD recorder that remembers all recordings on DVD+RW/+R discs made by this DVD recorder. This gives you a complete overview of your entire video collection at the touch of a button. The Disc Manager gives you quick and easy access to every recording **made on with this DVD recorder**. The Disc Manager also tells you which film was recorded on which disc and how many unrecorded minutes remain on the discs. And: You can go automatically to the beginning of the selected recording and start playback.

How many discs can I save in the Disc Manager?

You can store up to 999 discs on this DVD recorder. The maximum number of titles is more than 9,000. The maximum number of titles per disc is 49.

Caution when recording with other DVD recorders

Don't use a disc stored in the Disc Manager for recording on other DVD recorders. If you use a disc to record on another DVD recorder, then this disc will no longer be recognized by the Disc Manager. In this case, delete the disc from the Disc Manager's memory and then add it after it has been recorded.

Adding 'child-proof discs'

If you want to add child-proof discs you need to enter the PIN code.

Adding a disc to the Disc Manager

You can only add DVD+RW or DVD+R discs to the Disc Manager since other discs do not hold any information on the titles or lengths of the recordings. These discs have to be at least once recorded in the DVD-Recorder. A table of content have to be available. DVD+R discs can also be finalized. Other discs cannot be added to the Disc Manager.

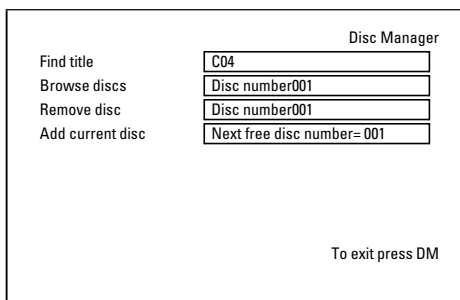
Recordings are saved automatically

On a disc that has been added to the Disc Manager, you can make new recordings as often as you like using this DVD recorder. The titles of these recordings will be stored in the Disc Manager automatically.

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Insert the DVD+RW/+R disc that you want to add in the DVD recorder.



* When I insert a disc I see a number on the screen in the index picture screen in the top left-hand corner

✓ You have inserted a disc that has already been registered by the Disc Manager.

- 2 Press the **DISC MANAGER** button on the remote control.
- 3 Select '**Add current disc**' using ▲ or ▼ and confirm with ► .
- 4 Confirm with **OK** .
 - The disc number will be added to the Disc Manager.
 - The disc number is then displayed and the disc tray opens automatically.
The disc is now stored in the Disc Manager under the displayed disc number.
Please write this number on the disc and on the cover.

Why do I need to label the discs?

When searching for unrecorded free space or available recordings, you will be asked to insert the appropriate discs (disc numbers).

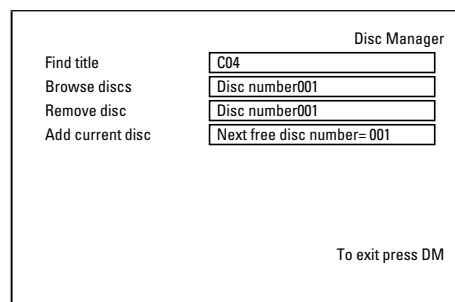
- 5 To end, press **DISC MANAGER** .

The DVD recorder will immediately recognize that this disc is saved in the Disc Manager. When this disc is inserted the disc number will appear in the title overview in the top left-hand corner.

Removing discs from the Disc Manager

Every DVD+RW/+R is stored with a number in the Disc Manager (DM). You can remove this disc number from the Disc Manager to use the Disc Manager's memory for new discs or to remove damaged discs from memory.

- 1 Press **DISC MANAGER** on the remote control.
- 2 Select '**Remove disc**' using ▲ or ▼ and confirm with ► .



- 3 Select the disc number with ▲ or ▼ and confirm with **OK** .

Disc contents are not deleted.

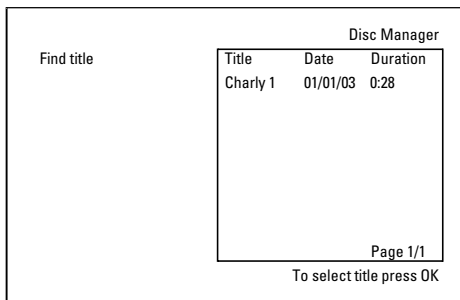
The disc is only removed from the Disc Manager's memory. Its contents remain unchanged.

- 4 To end, press **DISC MANAGER** .

Searching for a title in the Disc Manager

This function can be used to quickly and easily find and play back a recording saved in the Disc Manager.

- 1 Press **DISC MANAGER** on the remote control.
- 2 Select '**Find title**' using ▼ or ▲ and confirm with ► .
→ A list of the titles of all recordings stored in the Disc Manager (DM) will appear on the TV screen.



What do the displays on the screen mean?

'Title' = Title
'Date' = Date of the recording
'Duration' = Length of the recording

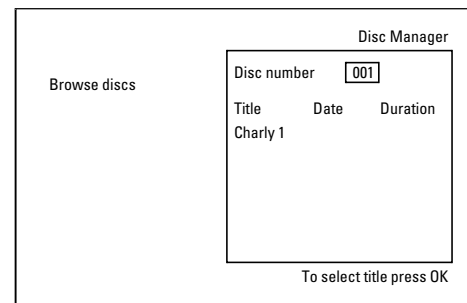
- 3 Select the title that you want to play back with ▼ or ▲ .
- 4 Confirm with **OK** .
→ The DVD recorder will jump to the start of the selected recording.

× **I see the message 'Insert disc number' on my screen**
✓ The selected recording is located on the Disc Manager disc with the displayed disc number. Please insert the appropriate disc. After a brief check, the DVD recorder will jump to the start of the selected recording.

Searching discs

You can easily search for the title of a recording stored in the Disc Manager. To do this, the appropriate disc does not have to be in the DVD recorder.

- 1 Press **DISC MANAGER** on the remote control.
- 2 Select '**Browse discs**' using ▼ or ▲ .
- 3 Confirm with ► .
→ The screen will show the contents of the last Disc Manager disc used.



- 4 Use ▲ or ▼ to select a different disc number if necessary and confirm with ► .

What do the displays on the screen mean?

'Title' = Title
'Date' = Date of the recording
'Duration' = Length of the recording

- 5 Press ▲ or ▼ to select the desired title.
- 6 Confirm with **OK** .
→ The DVD recorder searches for the start of the appropriate recording.

× **I see the message 'Insert disc number' on my screen**
✓ The selected recording is located on the Disc Manager disc with the displayed disc number. Please insert the appropriate disc.

User preferences for the HDD

General

This section describes how you can adjust the functions of the HDD to your personal preferences.

When you press **SYSTEM MENU**, a so-called puck '⊕' appears on a line.

If there are further selection options within a line, an arrow e.g.: '↵' will appear in the respective segments e.g.: '↵'. Using the corresponding buttons on the remote control (e.g. ▶) you can call up further features or selection options.

Preparation:

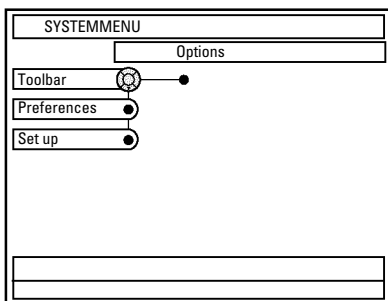
•) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).

•) Switch on the DVD recorder.

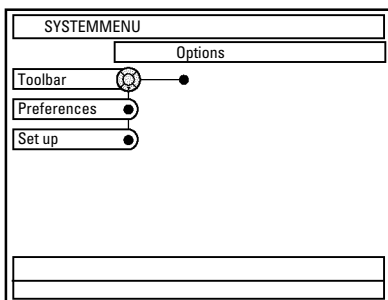
- 1 Press **TUNER** on the remote control to switch to HDD mode.

*You can also switch to HDD mode by pressing **BROWSER HDD** but you will not see the picture of the currently selected TV channel as a background picture.*

- 2 Press **SYSTEM MENU** on the remote control
→ The system menu for the HDD appears.



- 3 Select the corresponding line using ▼ or ▲.
 - If the arrow ▶ in the puck '⊕' is visible in one of the lines, you can select additional functions with ▶ on the remote control.
 - To return to the previous menu, keep pressing ▲ until the top menu item is selected. Press ◀ to return to the previous menu item.

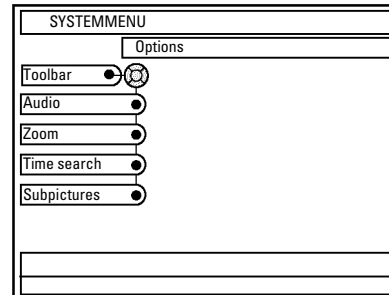


- 4 Select the corresponding function using ▼ or ▲, or the setting with ◀ or ▶. Select the functions you want to change as described in the following pages.

- 5 Confirm the new setting with **OK**.

- 6 Close the menu item with ◀.

Toolbar



Options

In this menu, you can choose functions for the playback of recordings (titles) on the HDD:

'Audio'

Selection of the language for the TV show currently selected on the DVD recorder.

Some TV programs broadcast additional audio (SAP - Secondary Audio Program). In most cases this means an additional language is available. For example, if a program is available in English and Spanish, Spanish can be broadcast as the additional audio program (SAP).

To record TV programs in stereo or SAP, you can select Stereo or SAP as the default setting. This setting does not become active until the sound of a TV program is transmitted in Stereo or SAP.

When you playback the recording, you can playback the sound only in the setting you selected for recording (a recording in SAP can be played back only in SAP).

This setting only affects playback through the internal tuner of the DVD recorder. The setting for the programmed recording (Timer) will not be affected.

If you also want to use/change the language for the programmed recording, you must change the language in the '**Preferences**' menu (setting '**Language**').

- '**Stereo**'
Playback is carried out in the original or main language. 'Lang I' also appears in the display.
- '**SAP**'
Playback is carried out in the dubbed language available. 'SAP' appears in the display.

'Zoom'

Using this function, you can enlarge (blue function button) or reduce the size (yellow function button) of the still picture or pan through the enlarged picture using ▼, ▲, ◀, ▶ during playback from the HDD (time shift buffer or media browser).

Press the red function button to stop this function.

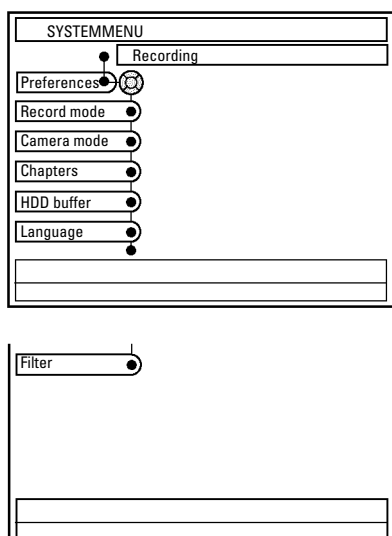
'Time search'

Using this feature, you can search a position by time. You can use this feature both for titles in the media browser and for playback from the time shift buffer.

'Subpictures'

This function is only required if recordings were made through a video camera connected to the **DV IN (CAM2)** jack. In this case, you can display/hide information on the date and time of the recording.

Preferences



Recording

In this menu, you can select one of the following functions for recording:

I can not select some functions

During a recording the selection of some functions are not possible. e.g. 'HDD buffer'.

'Record mode'

Select from the settings displayed the record mode (picture quality of the recording). M1, M2x, M3,... M8.

For recordings on a DVD+RW/+R (archiving function) always the recording mode used for the recording on the HDD will be taken. Observe the maximum possible recording time on a DVD+RW/+R. The maximum possible recording time on the HDD depends from the recording mode and the average length of the recordings (titles).

- **'M1'**
High Quality (high recording quality)
offers the best picture quality and a recording time of:
DVD+RW/+R: 1 hour.
HDD: approx. 24 hours
- **'M2'**
Standard Play (pre-recorded DVD quality)
offers standard picture quality and a recording time of:
DVD+RW/+R: 2 hours.
HDD: approx. 48 hours

- **'M2x'**
Standard Play plus (better than S-VHS quality)
offers standard picture quality and a recording time of:
DVD+RW/+R: 2,5 hours.
HDD: approx. 60 hours
- **'M3'**
Long Play (S-VHS picture quality).
Recording time of:
DVD+RW/+R: 3 hours.
HDD: approx. 72 hours
- **'M4'**
Extended Play (better than VHS picture quality).
Recording time of:
DVD+RW/+R: 4 hours.
HDD: approx. 96 hours
- **'M6'**
Super Long Play (VHS-picture quality).
Recording time of:
DVD+RW/+R: 6 hours.
HDD: approx. 144 hours if the average recording time for a title is at least 20 minutes.
- **'M8'**
Super Extended Play (VHS-LP-picture quality).
Recording time of:
DVD+RW/+R: 8 hours.
HDD: approx. 192 hours if the average recording time for a title is at least 20 minutes.

'Camera mode'

Select the recording mode (picture quality for recording) from one of the displayed settings for the recording from external jacks. **M1, M2x, M3,... M8**. Read the previous section (Record Mode) on the picture quality that corresponds to each setting.

'Chapters'

- **'Off'**
No auto chapters
- **'On'**
Automatic chapter marking after 5 minutes.

'HDD buffer'

Choose one the displayed settings to define how long a recording will be kept stored.

- **'1h'**
The recording will be kept stored for 1 hour
- **'6h'**
The recording will be kept stored for 6 hours

'Language'

Here you can set the default language to be used for the programmed recording of bilingual TV shows.

- **'Stereo'**
Recording is done in stereo or in the standard language.
- **'SAP'**
Recording is carried out in the dubbed language available.

User preferences for the HDD

'Filter'

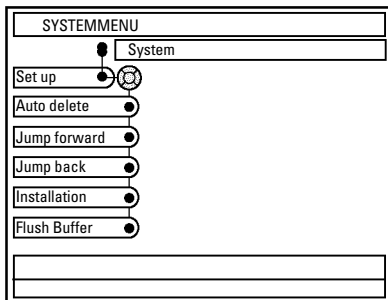
Here you can choose between:

I can not select this function

Check the actual record mode selected. This function is available in the record modes 'M4' to 'M8' only.

- **'Sport':**
Picture quality is optimized for rapid movements in the recording modes (picture qualities) M4 to M8.
Please observe that this setting will reduce the overall impression of the picture quality.
- **'Normal':**
Better overall picture quality.
Please observe that this setting may cause picture artefacts (MPEG artefacts) to appear in rapid movements.

'Set up'



'System'

In this menu, you can select one of the following features:

'Auto delete'

If there is no space for new recordings on the HDD, you can determine here whether recordings will be automatically deleted or not. You can see the titles and the sequence according to which they will be deleted in the '**Delete order**' setting in the media browser. For more information, read the chapter 'The Media Browser'.

- **'On':**
Recordings will be automatically deleted in the following order:
 - 1) Titles that have already been viewed. Symbol '👁'.
 - 2) Titles that were not protected. No symbol '✓' available.
- **'Off':**
No recordings will be automatically deleted.

'Jump forward'

Set the time you want to jump forward when you press **JUMP FWD** in the time shift buffer.

'Jump back'

Set the time you want to jump backward when you press **JUMP BACK** in the time shift buffer.

Use the setting 5 minutes for **Jump forward** and 1 minute for **Jump back**, to make it easy to skip unwanted scenes.

'Installation'

Please observe that for selection of function in this menu the Time shift Buffer will be flushed. If the 'Time Shift Buffer' contains important recordings, save them with the **REC/OTR** button first. Read additional information about the 'Time Shift Buffer' in the chapter 'The Time Shift Buffer'.

- **'Auto Ch. Programming':**
Automatic channel search
- **'Add/Delete Channels':**
Manual TV channel search
- **'Add/Delete Channels':**
Adding or deleting stored TV Channels
- **'Time/Date':**
Setting/Correcting the time and date

For more information, please read chapter 'Additional installation features'.






'Flush Buffer'

Using this function, you can store recordings on the HDD that were marked for recording in the time shift buffer. Recordings that were not marked will be deleted.

- **'Yes':**
Recordings will be stored
- **'No':**
This interrupts the process

General

This section describes how you can make additional personal settings. The symbols have the following meaning:

-  **Picture settings**
-  **Sound settings**
-  **Language settings**
-  **Additional settings**
-  **Disc settings**

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1** Press the **DISC MENU** button and then the **SYSTEM MENU** button on the remote control.
→ The menubar appears.

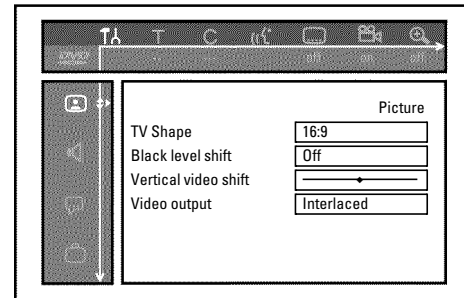


If this menubar is not complete visible on your wide screen TV-set, change the picture settings on your TV.

- 2** Select 'T' using ◀ oder ▶ and confirm with **OK**.
- 3** Select the corresponding function using ▼ or ▲ and confirm with **OK**.
- 4** Select the corresponding line using ▼ or ▲ and confirm with **OK**. For more information on each function, read the following pages.
- 5** Select the corresponding function using ▼ or ▲, or the setting with ◀ or ▶. Select the functions you want to change as described in the following pages.
- 6** Confirm the new setting with **OK**.
- 7** Close the menu item with ◀.

Picture settings

You can select the following functions in this menu:



'TV Shape'

The picture signal from your DVD recorder can be set to match your TV set:

- '4:3 letterbox'**
for a widescreen picture with black bars at the top and bottom
- '4:3 panscan'**
for a full-height picture with the sides trimmed.
- '16:9'**
for a widescreen TV set (16:9 screen ratio)

'Black level shift'

Adapts the color dynamics for NTSC playback when switched to 'On'

'Vertical video shift'

Use this feature to adjust the position of the picture on your TV left or right using ◀, ▶ to suit the screen of your TV set.

'Video output'

This allows you to switch the Component Video signal between 'Interlaced' and 'Progressive Scan.'

Warning If your TV has separate connections for 'Interlaced' and 'Progressive Scan' or it does not switch automatically between the two, it is possible that no picture will appear on the TV after it is switched from one to the other.

- 1** Select the setting you need with **SELECT**. Choose Progressive Scan only if your TV has Progressive Scan.
- 2** Confirm with **OK**.

* **No picture appears on the TV after switching**

Check the display of your DVD recorder.

'PRO': 'Progressive Scan' is on

No display: 'Interlaced' is on. Switch your TV to the corresponding input jack or select the corresponding connection. You can also switch the Component video output signal as follows:

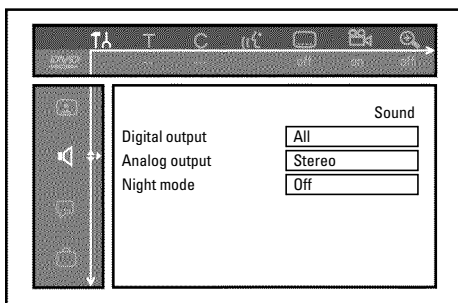
Additional user preferences

- Disconnect the recorder's power cord.
- Hold down **◀◀** on the DVD Recorder while reconnecting the power cord. 'PRO' (progressive scan) appears on the display.
- If you want to switch back, hold down **◀◀** until 'PRO' disappears from the display. The DVD Recorder is switched to 'Interlaced.'

Sound settings

You can select the settings in this menu depending on which audio outputs are used.

If you only use only the analog audio outputs (red and white jack **AUDIO L/R (OUT 2)** , **AUDIO L/R (OUT 1)**), select the setting **'Off'** in the **'Digital output'** menu.



'Digital output'

You can select one of the following settings for devices that are connected to the **COAX OUT** or **OPTICAL OUT** jacks:

- **'All'**
Dolby Digital and DTS signals are fed unaltered to the digital output. MPEG-2 multi-channel signals are converted to PCM (Pulse Code Modulation).
For receivers/amplifiers **with digital multi-channel decoders**.
- **'PCM only'**
Digital and MPEG-2 multi-channel signals are converted to PCM (Pulse Code Modulation). For receivers/amplifiers **without digital multi-channel decoders**.
- **'Off'**
Digital output switched off.
For devices **with analog audio input**.

'Analog output'

You can select one of the following settings for devices that are connected to the analog audio output **AUDIO L/R (OUT 2)** or **AUDIO L/R (OUT 1)** :

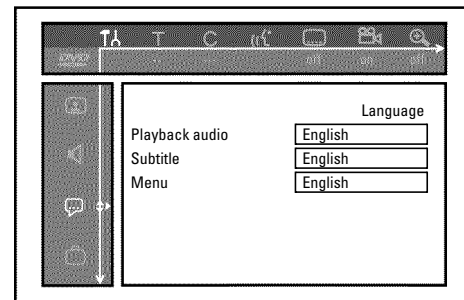
- **'Stereo'**
For devices without DolbySurround or TruSurround. Use this setting if the DVD recorder is only connected to a stereo TV set.
- **'Surround'**
Dolby Digital and MPEG-2 multi-channel are mixed down to a Dolby Surround-compatible two-channel output signal.
For devices **with Dolby Surround / Pro Logic Decoder** .

'Night mode'

Night mode optimizes the sound for playback at low volume. You are therefore less likely to disturb your neighbours. This only works with Dolby Digital audio on DVD video discs.

Language settings

You can select the following settings in this menu:



'Playback audio'

Playback audio language.

'Subtitle'

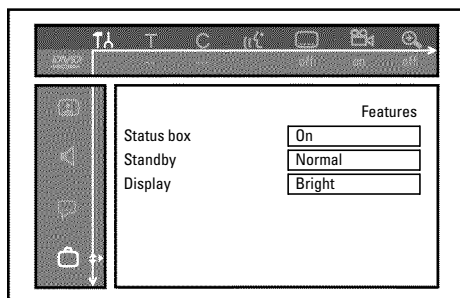
Subtitle language

'Menu'

Screen menu language

Additional settings

You can select the following functions in this menu:






'Status box'

During play back from a disc, information of the current operating status (counter, playback) will be shown on the TV screen. You can switch off the information about the operating status so that the on-screen display is not recorded when making recordings on additional devices.

- **'On'**
The OSD information appears for a few seconds in each selected mode and then disappears.
- **'Off'**
The OSD information is switched off. It is **no longer** displayed on the screen.

'Standby'

You can switch off the clock display on your DVD recorder to save energy. Programmed recordings will be carried out despite of this. In addition, you can have the most important features of your DVD recorder appear in scrolling text in the display (demo).

- **'Low power':**
When the DVD recorder was switched off using **STANDBY** , the clock display is also switched off.
- **'Normal':**
When the DVD recorder was switched off using **STANDBY** , the clock display remains visible.
- **'Demo mode':**
When the DVD recorder is switched off using **STANDBY** , a demonstration movie starts automatically.

'Display'

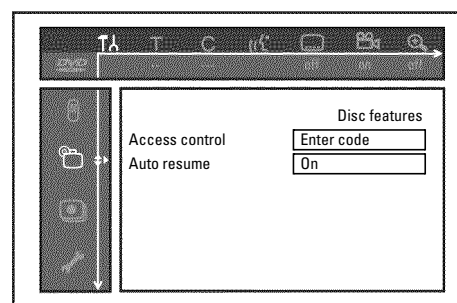
You can change the brightness of the display on the DVD recorder. This setting only affects the DVD recorder when it is switched on.

- **'Bright':**
The display appears with normal brightness. The disc tray light is switched on.

- **'Dimmed':**
The display appears less bright. The disc tray light is switched off.
- **'Off':**
The display and the disc tray light are switched off.

Disk feature menu



In this menu, you can make changes that relate to the disc:



'Access control'

Please read the next chapter 'Access control (child lock)'.

'Auto resume'

If playback of a pre-recorded DVD video disc or video CD is interrupted (using **STOP**  or **OPEN/CLOSE** ), playback will resume where it stopped after you reinsert the disc. This applies not only to the current disc but also to the last 20 discs you played.

You can switch off this feature if you do not want it.

'PBC'

This line appears only if you insert a VCD. Using this function, you can activate or deactivate the PBC menu (Playback Control) of a Video CD. For more information, read section 'Playing a (Super) Video CD' in chapter 'Playback'.

'Finalize disc'

This function allows you to finalize DVD+R discs. If the disc has already been finalized, this line will appear darker.

'Adapt disc format'

If a DVD+RW has been recorded in a PC drive or a different DVD recorder, the index screen may not be displayed properly. This feature allows you to adjust the format of the disc. Therefore, this feature is only visible if the disc format is different.

Access control (Child Lock)

Child lock (DVD and VCD)

This feature enables discs to be locked for children. When Child Lock is on, a 4-digit code (PIN) needs to be entered before a disc can be played. You can also decide whether the inserted disc should always be played or should be played only once, despite the child lock

•)'Play always':

This disc is stored in a memory with space for 50 child-safe discs. If more than 50 discs are stored, the last disc in the list is removed and the new disc is added. The screen shows 'Child safe' at the start of playback.

•)'Play once':

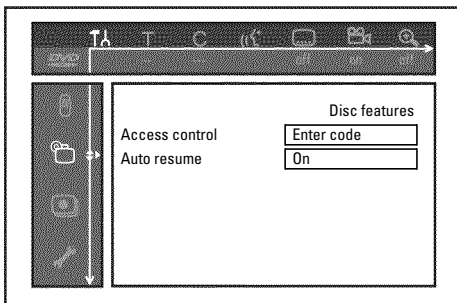
This disc is only authorized for single playback. If the recorder is switched off, the PIN code must be re-entered.

Activating/deactivating child lock

Preparation:

•) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
•) Switch on the DVD recorder.

- 1 Press **DISC MENU** and then **SYSTEM MENU** on the remote control. If playback from a disc starts automatically, remove the disc (button **OPEN/CLOSE ▲**).
→ The menubar appears on the screen.
- 2 Select the 'T' icon using ◀ or ▶ .
→ The 'SYSTEM MENU' appears.
- 3 Select 'Disc features' using ▼ or ▲ and confirm with ▶ .



- 4 Confirm '**Access control**' using ▶ .
- 5 Enter a 4-digit code of your choice. This code will also be used for locking titles on the HDD (Media Browser).
→ If the code is new, you may have to enter the code a second time as confirmation.
- 6 Select '**Child lock**' using ▲ or ▼ and confirm with ▶ .
- 7 Select the '🔒' icon using ▼ or ▲ .

- 8 Confirm with **OK** .
- 9 Quit the feature using ◀ and **SYSTEM MENU** .

Unauthorized discs can only be played by entering the four-digit PIN code.

To deactivate the child lock, select the '🔓' icon in 7 .

Authorizing a disc

- 1 Insert a disc. The access control box will appear after a short delay.
- 2 Using ▲ or ▼ select '**Play once**' or '**Play always**'.
3 Enter your PIN code using the number buttons **0..9** .

Double-sided DVDs may have a different ID for each side. For these discs, each side must be authorized. Video CDs may have a different ID for each disc. For these CDs, each disc must be authorized.

Locking unlocked discs

To lock a disc that was formerly authorized follow the instructions below

- 1 Insert a disc. Playback starts automatically. If the playback does not start automatically, press **PLAY ▶** .
- 2 Press the **STOP ■** button while the 'safe' icon is visible. The icon changes to 'locked'. The disc is now locked.

Parental level control (DVD video only)

Films on pre-recorded DVD discs may contain scenes not suitable for children. Therefore, some discs may contain 'Parental Control' rating information that applies to the entire disc or to certain scenes on the disc.

The appropriate scenes have filter values that reach from 1-8. If such a scene is detected during playback, the filter value set on the DVD recorder is compared to the scene. If the filter value is higher than the setting, an alternative scene will be played (if available).

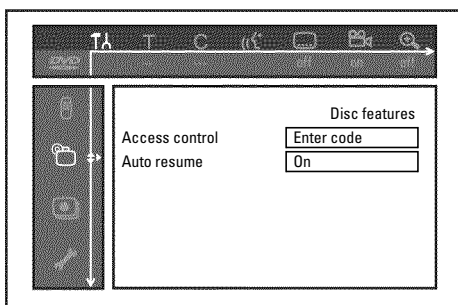
Most DVDs apply the rating to an entire DVD. Therefore, if certain scenes exceed the rating you select, the entire disc will be blocked from viewing.

Activating/deactivating parental level control

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press **DISC MENU** and then **SYSTEM MENU** on the remote control.
→ The menubar appears.
- 2 Select the 'T' icon using ◀ or ▶ .
- 3 Press the **SYSTEM MENU** button on the remote control.
- 4 Select the 'T' icon using ◀ or ▶ .
- 5 Select 'Disc features' using ▼ or ▲ and confirm with ▶ .



- 6 Confirm '**Access control**' using ▶ .
- 7 Enter a 4-digit code of your choice. If the code is new, you may have to enter the code a second time as confirmation.
- 8 Select the '**Parental level**' using ▲ or ▼ and confirm with ▶ .
A bar appears to select the parental level.
- 9 Select the appropriate rating using ▼ , ▲ or the number buttons 0..9 .

What do the ratings mean?

Rating 0 (displayed as '-') parental control not active.
Rating 1 (suitable for children)
Rating 8 (only suitable for adults)

What happens if a DVD scene contains a higher level than the rating set?

If the recorder does not find a suitable alternative, playback will stop and you must enter the four-digit code.

- 10 Confirm with **OK** . Quit using ◀ and **SYSTEM MENU** .

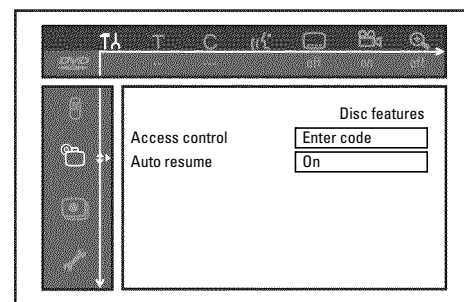
Changing the country

The set filter values depend on the respective country. It is therefore necessary to enter the country to which these filter values apply.

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press the **DISC MENU** and then the **SYSTEM MENU** button on the remote control.
→ The menubar appears on the screen.
- 2 Select the 'T' icon using ◀ or ▶ .
- 3 Select line 'Disc features' using ▼ or ▲ and confirm with ▶ .



- 4 Confirm the line '**Access control**' using ▶ .
- 5 Enter your four-digit code. If the code is new, you may have to enter the code a second time as confirmation.
- 6 Select '**Change country**' using ▼ or ▲ and confirm with ▶ .
- 7 Select the corresponding country using ▲ or ▼ and confirm with **OK** .
- 8 To end, press ◀ and then **SYSTEM MENU** .

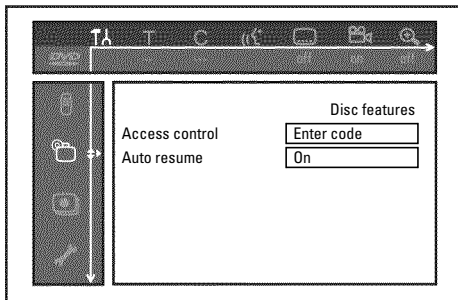
Access control (Child Lock)

Changing the PIN code

Preparation:

-) Switch on the TV set, and if necessary, select the channel for the DVD recorder (channel 3 or 4).
-) Switch on the DVD recorder.

- 1 Press the **TUNER** and then the **SYSTEM MENU** button on the remote control.
→ The menubar appears.
- 2 Select the 'T' icon using ◀ or ▶ .
- 3 Select 'Disc features' using ▼ or ▲ and confirm with ▶ .



- 4 Confirm '**Access control**' using ▶ .
- 5 Enter your four-digit PIN code. If the code is new, you may have to enter the code a second time as confirmation.
- 6 Select '**Change code**' using ▲ or ▼ and confirm with ▶ .
- 7 Enter the new code using the number buttons **0..9** . Enter the same code again as confirmation.
- 8 Quit using ◀ and **SYSTEM MENU** .

I have forgotten my code

Press **STOP** ■ four times (step 5), then press **OK** . Access control is now switched off. You can now enter a new code as described above.

Information on the screen of your TV

You can check or change many of the functions and settings of your DVD recorder via the system menu bar.

Symbols in the menu bar

Press **DISC MENU** and then **SYSTEM MENU** to open the menu bar. If a disc is played back, you can open the menubar with **SYSTEM MENU**.

Use **◀** and **▶** to select the relevant function.

Use **▼** to confirm the function and go either to another menu or execute the function directly.

Some functions may not be available, depending on the disc inserted.

Menu bar 1



User preferences

Title/track

Chapter/index

Audio language

Subtitle language

Camera angle

Zoom

Menu bar 2

While menu bar 1 is being displayed you can go to menu bar 2 by pressing **▶** again.



Sound

Frame advance

Slow motion

Fast motion

Search by time

Field for temporary messages

The top left corner of the menu line contains a field for temporary messages relating to the various operating modes. This information appears briefly on the screen when certain disc functions have been activated:

Shuffle

Scan

Repeat entire disc

Repeat title

Repeat track

Repeat chapter

Repeat from A to the end

Repeat from A to B

Camera angle

Child lock enabled

Resume playback

Illegal action

Status field

During playback of a disc, the status field shows the current operating mode (status) of the DVD recorder and the type of disc inserted. This display can be switched off.

Disc type symbols

DVD+RW

DVD+R

DVD-Video

Video-CD

No disc

Error

Operating mode symbols

Recording

Stop

Playback

Playback-Pause

Record-Pause

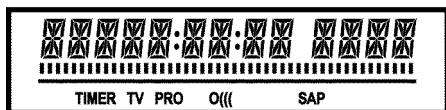
Search forwards (8x speed)

Search backwards (8x speed)

Slow motion

Information on the screen of your TV

The symbols on your DVD recorder display



These symbols can light up on your DVD recorder display:

Multi-function display/text line

-) Clock
-) Disc/title playing time
-) Title name
-) Display of the channel number of the TV channel/playing time/function.
-) Display of information and alerts
-) Display of the title from the actual recording.

||||| Position/Diskbar: Displays the current position on the HDD/disc.

Time Shift Buffer: Displays the elapsed time. If all segments lit, the oldest recording will be deleted from the Time Shift Buffer.

Play/Record: No segment will lit at the current position.

Pause: Flashing segment at the current position.

Stop: Nothing appears.

TIMER A recording (timer) has been programmed

TV Modulator off. The antenna signal (RF signal) is through-connected to the TV set only if the modulator is off.

PRO Component Video output switched to 'progressive scan'. If this display does not appear, the Component Video output is switched to 'interlaced'.

O(((A remote control signal has been received

SAP Second audio program of the tuner selected.

Messages in the DVD recorder display



The following messages may appear in your DVD recorder display

IS TV ON? The DVD recorder is in initial installation mode. Switch the TV on, then read the paragraph on 'Initial installation' in 'Installing your DVD recorder'.

NO SIGNAL No input signal available (signal inadequate or unstable)

MENU The menu on the screen is active

OPENING Disc tray opening

TRAY OPEN Disc tray open

CLOSING Disc tray closing

READING Disc being read

MENU UPDATE Once recording has been successfully completed the table of contents is created.

CREATE MENU The menu structure is created after the first recording has been made on a new disc

COPYPROTECT You received a copy-protected signal. This may come from a copy-protected DVD/videotape of a DVD/video player or from a TV channel.

During the display **COPYPROTECT** no recording will be made. A running recording will be interrupted.

WAIT Please wait until this message disappears. The DVD recorder is busy performing a task.

NO DISC A disc has not been inserted for recording. If a disc has been inserted, it cannot be read.

INFO Information about the inserted DVD is displayed on the screen

BUSY The DVD recorder is processing the changes to make the disc DVD compatible

ERASING The entire DVD+RW is being erased

EMPTYDISC The DVD+RW/+R inserted is either new or has been completely erased (no recordings).

PROTECTED The DVD+RW/+R inserted is protected against recording. How to remove this protection you will read in the section 'Protect disc against accidental recordings' in the chapter 'Recording on a DVD+RW/+R'.

Title limit The maximum number of titles per disc/HDD has been reached. The maximum number of titles on a disc is 48 and on the HDD 499.

MAX CHAP The maximum number of chapters within a title/or the disc has been reached. The maximum number of chapters is; DVD+RW/+R: within a title 99, on the disc 255 (spread over the whole disc)


Information on the screen of your TV

HDD: within a title 500, on the HDD 1000 (spreaded over the whole HDD)

DISC FULL The disc/HDD is full. There is no space for new recordings

PAL DISC A disc with PAL recordings has been inserted. The machine is trying to record an NTSC signal. Insert a new disc or one that contains NTSC recordings.

NTSC DISC A disc with NTSC recordings has been inserted. The machine is trying to record a PAL signal. Insert a new disc or one that contains PAL recordings.

RECORDING An illegal action (e.g. **OPEN/CLOSE**  button) was attempted during recording on a DVD+RW/+R (archiving).


FREE TITLE An empty title on a DVD+RW/+R is selected.

DISC LOCKED An attempt has been made to record during playback of a protected disc. This message appears if an attempt is made to insert a chapter marker on this inserted DVD+RW/+R.

DISC ERROR An error occurred when reading the title from a DVD+RW/+R. If this error keeps occurring, please clean the disc or use a new one. For instructions on how to clean a disc see the section on 'Cleaning the discs' in the next chapter.

DISC WARN An error occurred when writing the title on a DVD+RW/+R. Recording was continued; the error was skipped

SETUP After the automatic search the menu for setting the date/time will appear on the screen.

WAIT  During the automatic channel search the TV channels found will be counted.

LOCKED The disc tray cannot be closed/opened.

SAFE REC During the archiving procedure, the new recording will be added at the end of all the other recordings (SAFE RECORD).

POST-FORMAT After the creation of the menu structure the DVD+RW/+R is prepared. As long as 'POST-FORMAT' is visible on the display you can not operate the DVD-Recorder.

PHILIPS The DVD-Recorder has been switched on

STANDBY The DVD-Recorder has been switched off

GUIDE  The TV Guide On Screen™ system is switched on

Before you call an engineer

If you have any problems using this DVD recorder, the reason may be one of the following. You can also call the **customer service centre** in your country.

You can also visit our **web page** '<http://www.p4c.philips.com>'.

Have the model number (MODEL NO) and the production number (PROD.NO) of your recorder ready.

The production number (PROD. NO.) is printed on the type plate at the back or on the bottom

PROBLEM	SOLUTION
Your recorder does not respond to any button being pressed and the display shows 'PHILIPS', '15 TV ON?':	<ul style="list-style-type: none">✓Recorder in initial installation mode: Switch on the TV, switch over to the DVD recorder jack or if you have only connected the DVD recorder to an antenna cable select channel 3 or 4 on the TV. Now the menu for language selection should appear. Please read paragraph 'Initial Installation' in the chapter 'Installing your DVD Recorder'.
The device does not react when you press a button, although the remote control works:	<ul style="list-style-type: none">✓'Dealer-Mode' is switched on: All buttons on the front of the set are locked. Switch off the function:<ol style="list-style-type: none">➊ Pull out the AC-outlet plug from the AC- outlet.➋ Press and hold down ■ and OPEN/CLOSE ▲ and put back the AC-outlet plug into the AC- outlet.➌ As soon as the time or '---:--' appears in the display (ca. 6 - 10 seconds), release ■ and OPEN/CLOSE ▲ .
Your DVD recorder does not respond to any button being pressed:	<ul style="list-style-type: none">✓There is no power supply: check the power supply✓There is a technical problem: disconnect from the AC-outlet for 30 seconds, then connect again. If this doesn't help, you can reset your DVD recorder to the default factory settings.
Resetting the machine to the default factory settings	<ul style="list-style-type: none">✓Important: All the information stored (TV channels, time and date, TIMER) will be lost.<ol style="list-style-type: none">➊ Disconnect from the AC-outlet.➋ Press and hold down the STANDBY-ON ☰ button on the device and reconnect to the AC-outlet.➌ Release the STANDBY-ON ☰ button when the features appears on the display. All the information stored (TV channels, time and date, TIMER) will be lost.Please read paragraph 'Initial Installation' in the chapter 'Installing your DVD Recorder'.
Remote control does not work:	<ul style="list-style-type: none">✓Remote control not pointed toward the DVD recorder: Point the remote control at the machine. See if the 'o(((appears on the display briefly each time you press a remote control button. If it does, the Recorder is receiving information from the remote correctly.✓There is a technical problem: Take out the batteries, wait for 10 seconds and put them in again.✓Batteries are flat: Change the batteries.
I can not switch off the DVD-Recorder:	<ul style="list-style-type: none">✓A recording is in progress (red light around the REC/OTR ● button is switched on). After the recording is finished, the DVD-recorder will switch off automatically.
Fans run with switched off DVD recorder:	<ul style="list-style-type: none">✓For the execution of certain procedures the DVD recorder can switch itself on automatically, although no information is visible on the display. To prevent overheating, the fans at the back will be switched on and off automatically This is no fault of your set.

PROBLEM	SOLUTION
<p>No playback on DVD recorder:</p>	<ul style="list-style-type: none"> ✓ There is no recording on the HDD/disc: Check the titles from the HDD in the media browser (button BROWSER HDD), change disc. ✓ You inserted the wrong disc type: Your recorder can play back the following disc types: DVD Video, (Super)Video CD, DVD+R(W), Audio CD, , MP3-CD's ✓ You inserted the disc the wrong way: Insert the disc with the label facing upwards ✓ Disc is dirty: Clean the disc ✓ Wrong region code: The region code of the DVD and the DVD recorder must match. ✓ Parental control is on: Read chapter 'Access control (child lock)' ✓ Parental control is on fro titles from the HDD: Read chapter 'Access control (child lock)' ✓ You have selected the wrong channel number on the TV for the DVD recorder: Select the correct channel number (channel 3 or 4) on the TV. ✓ The cable connecting the TV set and the DVD recorder has come loose: check the cable.
<p>I cannot playback (Super) Video CDs</p>	<ul style="list-style-type: none"> ✓ It is possible that this (Super) Video CD contains a menu and the 'PBC' is switched off. You can see this in status field 'PBC OFF'. To activate this function, proceed as follows: <ol style="list-style-type: none"> ➊ Press SYSTEM MENU while the (Super) Video-CD is inserted . ➋ Select 'T' using ◀ or ▶ . ➌ Select line 'Features' using ▼ or ▲ and confirm with ▶ . ➍ Select 'On' in line 'PBC' using ▼ or ▲ . ➎ Confirm with OK and end with SYSTEM MENU . ✓ Check the format of self recorded (s)VCD's (1.0, 1.1, 2.0). Play back of (S)VCD's in a different format can be distorted.
<p>Poor playback on DVD recorder: (distorted picture/distorted sound)</p>	<ul style="list-style-type: none"> ✓ Your TV set is not properly adjusted. ✓ Disc is dirty: Clean the disc ✓ Sometimes the picture may be temporarily distorted. This is not a defect of your DVD recorder.
<p>Digital distortions</p>	<ul style="list-style-type: none"> ✓ The low quality of some digital picture material may be the cause of digital image distortion. In this case change the setting of the sharpness or the picture settings. If your TV is equipped with a 'Smart picture' function, select the 'Soft' setting, without changing the picture settings manually.
<p>Artifacts can be displayed on the TV screen if the 'Video output' is switched to 'Progressive Scan'</p>	<ul style="list-style-type: none"> ✓ THIS PRODUCT IS EQUIPPED WITH COPY PROTECTION TECHNOLOGY REQUIRED BY MANY MOTION PICTURE COMPANIES THAT PRODUCE HIGH DEFINITION MOVIES. CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THE APPLIED PROTECTION AND THEREFORE MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. Switch therefore the 'Video output' to 'Interlaced' (see chapter 'Additional user preferences'/'Picture settings'/'Video output')
<p>No recording on the HDD possible:</p>	<ul style="list-style-type: none"> ✓ The TV channel you want to record is not stored or you selected the wrong program number: Check TV channels stored.
<p>No recording on the a DVD+RW/+R possible:</p>	<ul style="list-style-type: none"> ✓ Disc write-protected (recording protected): Remove write-protection or change the disc. For more information, please see 'Preventing accidental erasing of discs' in chapter 'Manual Recording'. ✓ An already finalized DVD+R has been inserted: Change disc. ✓ Cablebox (if available) switched off: Switch it on ✓ IR-Blaster not connected: Connect the IR-Blaster and set up the TV Guide On Screen™ system with the cable box. (Chapter 'The TV Guide On Screen™ system, section 'Setting up the TV Guide On Screen™ system').
<p>Programmed recording does not work:</p>	<ul style="list-style-type: none"> ✓ You have programmed the wrong time or date: Check time/date. ✓ You have not set the TIMER properly: Check the programmed recordings (TIMER block).
<p>There is no channel overview in the TV Guide On Screen™ system</p>	<ul style="list-style-type: none"> ✓ DVD recorder is switched on: Switch off the DVD recorder to allow data transfer ✓ Cabelbox (if available) is switched off: Switch on the cable box ✓ IR-Blaster not connected: Connect the IR-Blaster andset up the TV Guide On Screen™ System with the cable box. (Chapter 'The TV Guide On Screen™ System, section 'Setting up the TV Guide On Screen™ System').

Before you call an engineer

PROBLEM	SOLUTION
Missing or wrong TV channels	<ul style="list-style-type: none">✓ Wrong cable connection selected
The cable box do not always react to the IR Blaster	<ul style="list-style-type: none">✓ The Infrared (IR) Remote control signal interfere with the IR signal of the IR Blaster Put the IR Blaster closer to the front of the cable box.
In the TV Guide On Screen™ 'LISTINGS' screen, I see too many or too less TV Channels	<ul style="list-style-type: none">✓ The number of TV channels depends on the setting in the TV Guide On Screen™ system settings. If you have a cable box installed (cable box 'YES'), then you should switch on the available channels (Channels above 125).✓ If you have no cable box installed (cable box 'NO'), then you should switch off the channels which are not available.
My cable box does not react on the remote control from the cable box or automatically switches through the channels	<ul style="list-style-type: none">✓ If the DVD-Recorder is switched off (STANDBY ⏻ button) the cable box will be used from the TV Guide On Screen™ system via the DVD-Recorder. If you want to watch TV-Channels from the cable box, you have to switch the DVD-Recorder on. Then you can select the TV Channels with the remote control from the DVD-Recorder or from the cable box.
There is picture or sound interference on TV reception:	<ul style="list-style-type: none">✓ Before recording, select the recording mode as described in chapter 'Manual Recording', section 'Selecting the recording mode (quality)'.✓ Change the channel of the modulator. During standby hold on the remote the button 3 pressed to switch to channel 3. With button 4 you switch to channel 4.✓ Have your antenna checked.
Distorted sound coming from a connected hi-fi amplifier	<ul style="list-style-type: none">✓ The DVD recorder is connected to the 'Phono-input' of your amplifier: This jack is provided only for a record players without a preamplifier. Select a different audio input.
The picture is distorted or black-and-white during playback	<ul style="list-style-type: none">✓ The TV system of the disc does not match that of your TV set (PAL/NTSC).✓ The recording can be made in color only when the TV channels or the connected additional device send a color signal. Black-and-white signals containing no color information (color subcarriers) cannot be recorded.
No sound signal at the digital output	<ul style="list-style-type: none">✓ Check whether the sound settings match the selected inputs and connected additional devices. For more information, see section 'Sound setting' in chapter 'User preferences'.
There could be difference in the search speed of a DVD and DVD+RW	<ul style="list-style-type: none">✓ Depending on the different structure of a DVD and a DVD+RW/+R this can lead to the different search speeds. This is not a fault in your machine.

PROBLEM	SOLUTION
<p>A DVD+RW disc cannot be played on certain DVD players</p>	<p>✓If a recording is too short, it is possible that a DVD player cannot detect it: Please observe the following 'Minimum recording times': Recording mode 'M1': 5 minutes, 'M2': 10 minutes, 'M2x': 13 minutes, 'M3': 15 minutes, 'M4': 20 minutes, 'M6': 30 minutes, 'M8': 30minutes,</p> <p>✓Some DVD players cannot play back DVD+RW recordings. You can solve this problem by using a special function:</p> <ol style="list-style-type: none"> ❶ Open the disc tray with OPEN/CLOSE ▲ . Insert the disc but do not close the tray. ❷ Hold down the number button 2 on the remote control until the tray closes. The disc is modified. ❸ You can restore the disc to its original condition by pressing 1 . <p>Warning! There is a risk that you can no longer play the disc on other DVD players after this procedure. Therefore, apply this function with particular care.</p>
<p>Other disc errors (DVD+RW)</p>	<p>✓If it is impossible to play back a disc, you can try and repair it for new recordings using the following function. This will only prepare the disc for erasing. It will not be erased, however, until the recording has been completed.</p> <ol style="list-style-type: none"> ❶ Clean the disc ❷ Open the disc tray with OPEN/CLOSE ▲ . Insert the disc but do not close the tray. ❸ Hold down the red function button on the remote control until the tray closes. The disc is prepared for erasing. ❹ Start recording as with an empty disc.
<p>Other disc errors (DVD+R), 'Disc contains unknown data' interruption of a recording (power outage)</p>	<p>✓This message may appear if you insert a DVD+R that was not finalized or an error occurs during the recording. DVD+R's that have not been finalized are very sensitive to fingerprints, dust, or dirt. This may cause problems during recording. To use the disc again, follow the next steps</p> <ol style="list-style-type: none"> ❶ Make sure that the surface of the disc is clean. ❷ Open the disc tray with OPEN/CLOSE ▲ . Insert the defect DVD+R but do not close the tray. ❸ Hold down 5 on the remote control until the tray closes. The disc will be read ('READING' appears on the display) and the DVD recorder will start the repair process. This may take up to four times as much time as the recording, in which the error occurred. ❹ If the disc is recovered, the index screen will appear. <p>Please observe the following: The recovering procedure is successfully only if there was a previous recording on the disc. Error during recording: The title may be missing. Error while changing the title/index picture: The original title/index picture may be visible. Error while finalizing: The disc appears not to have been finalized.</p>
<p>The index screen flickers when a DVD+R is inserted</p>	<p>✓You can finalize the disc using the following function:</p> <ol style="list-style-type: none"> ❶ Open the disc tray with OPEN/CLOSE ▲ . Insert the defect DVD+R but do not close the tray. ❷ Hold down 4 on the remote control until the tray closes. 'FINALIZING' appears in the display. Finalizing begins. This may take up to three minutes. ❸ If finalizing has been successful, the index screen will appear.

DVD Recorder

One year Free Labor / One year Parts Exchange

This product must be carried in for repair.

WHO IS COVERED?

You must have proof of purchase to receive warranty service. A sales receipt or other document showing that you purchased the product is considered proof of purchase.

WHAT IS COVERED?

Warranty coverage begins the day you buy your product. For one year thereafter, all parts will be repaired or replaced, and labor is free.

After one year from the day of purchase, you pay for the replacement or repair of all parts, and for all labor charges. All parts, including repaired and replaced parts, are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

WHAT IS EXCLUDED?

Your warranty does not cover:

- labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips.
- reception problems caused by signal conditions or cable or antenna systems outside the unit.
- a product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)
- a product that is used for commercial or institutional purposes (including but not limited to rental purposes).

WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips. In countries where Philips does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to the owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

TO GET WARRANTY SERVICE IN THE U.S.A., PUERTO RICO, OR U.S. VIRGIN ISLANDS...

Take the product to a Philips factory service center (see enclosed list) or authorized service center for repair. When the product has been repaired, you must pick up the unit at the center. Centers may keep defective parts.

(In the U.S.A., Puerto Rico, and U.S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. Because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

TO GET WARRANTY SERVICE IN CANADA...

Please contact Philips at:

1-800-531-0039 (English or Spanish Speaking)

1-800-661-6162 (French Speaking)

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of such damages.)

REMEMBER...

Please record below the model and serial numbers found on the product. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

Model Number: **HDRW 720/17**

Serial Number: _____

This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.

Philips, P.O. Box 520890, Miami, FL 33152, (402) 536-4171

EL6506E003 / 09-02

Chapters

Also known as 'scenes', a DVD movie can be broken up into sections much like the chapters of a book, that can be accessed quickly and easily via the DVD menu or remote control.

NICAM

NICAM is a digital sound transmission system. Using NICAM, you can transmit either 1 stereo channel or 2 separate mono channels. However, if reception is poor and the sound distorted you can turn off NICAM.

NTSC

National Television Systems Committee. The color TV broadcast system used in the US, Canada and Japan. An NTSC picture is made up of 525 horizontal lines and has inferior picture quality in comparison to the PAL system. All Australian-sold DVD players are NTSC compatible, however DVD's that are played on a television that is not compatible will appear in black and white.

Region code

Since DVD films are not normally released in all parts of the world at the same time, all DVD players have a specific regional code. Discs can be given a regional code. If the regional codes differ between the player and the disc, playback is not possible.

The regional code of the DVD recorder is shown on the type plate at the back or bottom.

Pan & Scan

One method of converting a widescreen movie to fit in a standard 4:3 television is known as letterboxing (described above) and the other commonly found process is Pan and Scan (also known as Panning and Scanning). To retain a fullscreen 4x3 image, the most important part of each scene is chosen and the left and right edges of the scene are cropped. Obviously, this process results in a loss of some data and does not fully represent the film as it was intended to be portrayed by the director. As such, DVD enthusiasts are not overly fond of DVD's authored via this method.

Macrovision

Macrovision is a copy-protection technique intended to keep you from making copies of DVDs with your VCR. It works by continuously adjusting the video signal level that results in a recording where the brightness of the picture continuously fluctuates between light and dark, and the color levels fluctuate between oversaturated and washed out. Macrovision "encoded" DVDs contain a bit of data that tells the DVD player to activate its internal macrovision circuitry in order to prevent copying.

Regional Coding

A security system introduced to DVD at the request of Hollywood's major studios to ensure that DVD's released and sold in one region will not play on DVD machines in other regions. Movie distributors therefore maintain control over release dates of their films, as well as enabling discs to be produced that conform to different censorship laws, language and subtitle requirements. When a DVD disc is manufactured, a region code is applied at the authoring stage such that the final disc will play only on those players distributed in the designated world region.

Code numbers of the remote control

A Mark	146	Colortyme 004, 006, 114, 130, 134,	250	258, 259, 262, 267, 269,	
Action	116	141, 144, 151	Finlandia	216, 279	
Admiral	093, 134, 209, 262, 306,	Condor	231, 246, 250, 257, 272,	286, 297, 299, 307, 327,	
	332		283, 332	333, 334, 336	
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Storage media

Hard Disc recording: 120 GB HDD

TV systems

Playback: NTSC
Recording: NTSC
Internal tuner: NTSC

Optical disc

	Playback	Recording
DVD+RW	•	•
DVD+R	•	•
DVD-R/-RW, video mode	•	-
DVD-Video	•	-
Video CD, Super VCD	•	-
Audio CD	•	-
MP3 CD	•	-
CD-R/RW	•	-

Video Format

Digital compression DVD, SVCD: MPEG2
VCD: MPEG1

Record modes

Max HDD recording time: 190h
Max DVD recording time: 8h

Mode	Rec.time	Resolutio- n	Bit rate	
			Video (Mbit/s)	Audio (kbit/s)
M1	60'	DI	9.72M	384k
M2	120'	DI	5.07M	256k
M2x	150'	DI	4.06M	256k
M3	180'	1/2 DI	3.38M	256k
M4	240'	1/2 DI	2.54M	256k
M6	360'	1/2 DI	1.70M	256k
M8	480'	SIF	1.27M	192k

Resolution H x V 60Hz

(pixels)

Full DI (DVD-Video) 720 x 480
Half DI 360 x 480
SIF (VCD) 352 x 240

TV Standard NTSC PAL/SECAM

Scan frequency 60Hz 50Hz
Number of lines 525 625
Playback • •
Recording • •
Internal tuner - •

Video Performance

DA Converter: 10 bit
AD Converter: 9 bit
Signal handling: Components
Video (CVBS) out: 1 Vpp into 75 ohm
S-video (Y/C) out: Y: 1 Vpp into 75 ohm
C: 0.286 1Vpp into 75 ohm

Component video out (YPBPR): Y: 1 Vpp into 75 ohm
PB: 0.7 Vpp into 75 ohm
PR: 0.7 Vpp into 75 ohm

Audio Format

Compressed digital Playback Recording
Dolby Digital (AC3) 5.1- 2-channel
channel* 16-bit, 48
kHz
DTS, MPEG2 5.1-
channel* -
MPEG1, MP3 2- channel -
PCM 2-channel -
16/20/24 bit
48/96 kHz

*6.1-channel compatible

Audio Performance

DA Converter: 24 bit
AD Converter: 16 bit
DVD fs 96kHz 4Hz-44kHz
fs 48kHz 4Hz-22kHz
Video CD fs 44.1kHz 4Hz-20kHz
Audio CD fs 44.1kHz 4Hz-20kHz
Signal/Noise (1kHz): 105 dB
Dynamic range (1kHz): 90 dB
Crosstalk (1kHz): 105 dB
Distortion/Noise (1kHz): 90 dB

Front Connections

i.LINK DV in: IEEE 1394 4-pin
S-video in: Hosiden 4-pin
Video in: Cinch (yellow)
Audio left/right in: Cinch (white/red)

Rear Connections

Component video in: Cinch (green/blue/red)
Progressive scan / Cinch (green/blue/red)
Component video out:
S-video in / out: Hosiden 4-pin
Video in / out: Cinch (yellow)
Audio L/R in (2x) / out (2x): Cinch (white/red)
Digital audio out: Coaxial, Optical
RF antenna in: Coaxial 75 ohms (F type)
RF TV out: Coaxial 75 ohms (F type)
AC-outlet: Standard (IEC type)
G-LINK: for IR Blaster

Timer Recording

Number of events: 12; 1 year; daily/weekly
Timer programming: Manual, VCR Plus+

Interactive Program Guide

Timer programming: TV Guide On Screen™/VCR Plus+®/Manual
Number of events: more than 15; 1 year; daily/weekly/regular
Set Top Box control: Cable box

General Functionality

Automatic Screen Saver
Backup presets & timer: 1 year
Backup clock & calendar: 5 hours
Audio recording level: Automatic

DVD/CD playback

- Fast Forward/Backward
- Step Forward/Backward
- Slow
- Direct Title/Track access
- Next/Previous Title/Track/Chapter
- Repeat (Chapter/Title/All) or (Track/All)
- A-B Repeat
- Shuffle
- Intro Scan
- Time Search
- Zoom (1.33x, 2x, 4x) with picture enhancement
- Auto Resume (20 discs)

MP3 CD playback

- Time display (Track)
- MP3 text (ID3 tags) display
- Album and track selection
- Repeat (disc/album/ track)
- Variable Bit Rate of 32-256 kbit/s
- 32, 44.1, 48 kHz sampling rates
- ISO9660 file system
- Single session
- Nested directories supported to 8 levels
- Up to 32 album numbers
- Up to 999 tracks

Power Supply

Power supply: 120V, 60Hz
Power consumption Operation 27W
Low-power standby 8 W

Cabinet

Dimensions (W x H x D): 435 x 76 x 335 mm
Net Weight: 4.0kg

Remote Control

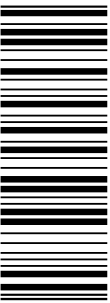
- Multi brand remote control

Package Contents

- DVD Video Recorder/Harddisc
- Remote Control + batteries
- User Manual
- AC power cable
- Coax RF antenna cable
- IR-extender cable (IR Blaster)
- Component Video cable
- Stereo audio cable

Philips Consumer Electronics

Data subject to change without notice



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4375/000

HDRW 720/17

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