DVD Video player DVD950/955/956

- Instructions for use
- Mode d'emploi
- Instrucciones de manejo
- Bedienungsanleitung
- Gebruiksaanwijzing
- Istruzioni per l'uso
- Manual de utilização









PHILIPS

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.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

LASER

Type Semiconductor laser GaAlAs

Wave lenght 650 nm (DVD)

780 nm (VCD/CD)

Output Power 7 mW (DVD)

10 mW (VCD/CD)

Beam divergence 60 degree.

NEVER MAKE OR CHANGE CONNECTIONS WITH THE POWER SWITCHED ON.



The DVD-VIDEO player is in conformity with the EMC directive and low-voltage directive.

CLASS 1 LASER PRODUCT

<u>CAUTION</u> VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO REAM

<u>Advarsel</u> synlig og usynlig laserstråling ved åbning undgå udsættelse for stråling

<u>Advarsel</u> synlig og usynlig laserstråling når deksel åpnes unngå eksponering for strålen

<u>Varning</u> synlig och osynlig laserstrålning när denna del är öppnad Betrakta ei strålen

<u>VARO!</u> AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN

<u>VORSICHT</u> SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSEN

<u>DANGER</u> VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM

<u>ATTENTION</u> RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU

CAUTION WARNING LOCATION: INSIDE ON LASER COVERSHIELD

For Customer Use:

Read carefully the information located at the bottom of your DVD-VIDEO player and enter below the Serial N° .Retain this information for future reference.

Model N . DVD-VIDEO
Serial N°.

English	
Français————	39
	_
Español	<i>1</i> ;
Deutsch	107
Deutsch	
Nederlands	1/1
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Italiano	17!
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Português	209
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This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intented for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Products with Dolby Digital and Pro Logic:

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

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TRUSURROUND, **srs**, and symbol (•) are trademarks of SRS Labs,Inc. TRUSURROUND technology is manufactured under license from SRS Labs, Inc.

The entertainment medium for the millenium

Video was never like this before! Perfect digital studio-quality pictures with truly 3- dimensional digital multichannel audio. Story sequences screened from your own choice of camera angle.

Language barriers broken down by sound tracks in as many as eight languages, plus subtitles - if available on disc - as many as 32. And whether you watch DVD-Video on wide-screen or regular TV, you always see it the way it was meant to be.

Digital video

DVD-Video uses state-of-the-art MPEG2 data compression technology to register an entire movie on a single 5-inch disc. DVD's variable bitrate compression, running at up to 9.8 Mbits/second, captures even the most complex pictures in their original quality.

The crystal-clear digital pictures have a horizontal resolution of over 500 lines, with 720 pixels (picture elements) to each line. This resolution is more than double that of VHS, superior to Laser Disc, and entirely comparable with digital masters made in recording studios.

DVD-Video discs conform to either the PAL or NTSC video standard. This dual-standard player can play both types, and presents them in the best possible way on your multistandard TV screen.

As the universal video system of the future, DVD-Video offers optimal pictures on any TV screen.

Introduction

Your Philips DVD-Video player is a player for digital video discs conforming to the universal DVD Video standard. With it, you will be able to enjoy full-length movies with true cinema picture quality, and stereo or multichannel sound (depending on the disc, and on your playback setup). The unique features of DVD-Video, such as selection of sound track and subtitle languages, and of different camera angles (again depending on the disc), are all included. What's more, Philips Child Lock lets you decide which discs your children will be able to see.

You will find your player remarkably easy to use, by way of the On-Screen Display and player display, in combination with the remote control.

In addition to DVD-Video discs, you will also be able to play all Video CDs and audio CDs (including CDR and CDRW).

DVD-Video

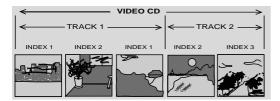
You will recognize DVD-Video discs by the logo.

Depending on the material on the disc (a movie, video clips, a drama series, etc.) these discs may have one or more Titles, and each Title may have one or more Chapters. To make access easy and convenient, your player lets you move between Titles, and also between Chapters.













Video CD

You will recognize Video CDs by the logo.

Depending on the material on the disc (a movie, video clips, a drama series, etc.) these discs may have one or more tracks, and tracks may have one or more indexes, as indicated on the disc case. To make access easy and convenient, your player lets you move between tracks, and between indexes.

Audio CD

Audio CDs contain music tracks only. You will recognize CDs by their logo.

You can play them in conventional style through a stereo system, using the keys on the remote control and/or front panel, or via the TV using the On Screen Display (OSD).

Unpacking

First check and identify the contents of your DVD-Video player package, as listed below:

- DVD-Video player
- Remote Control Handset with separately-packed batteries
- 2-core power cord
- Euroconnector cable
- Audio cable
- Video cable
- User Manual

If any item should be damaged or missing, please inform your supplier without delay.

Keep the packaging materials; you may need them to transport your player in the future.

Placement



- Place the player on a firm, flat surface.
- Keep away from domestic heating equipment and direct sunlight.
- In a cabinet, allow about 2.5 cm (1 inch) of free space all around the player for adequate ventilation.
- If the DVD-Video player cannot read CDs/DVDs correctly, use a commonly available cleaning CD/DVD to clean the lens before taking the DVD-Video player to be repaired. Other cleaning methods may destroy the lens. Always keep the tray closed to avoid dust on the lens.
- The lense may cloud over when the DVD-Video player is suddenly moved from cold to warm surroundings. Playing a CD/DVD is not possible then. Leave the DVD-Video player in a warm environment until the moisture evaporates.

Front of player STANDBY - switches the player to Power/Standby mode Standby indicator - lights up red when the player is in Standby mode - lights up green when the player is operative Display - displays the current status of the player - selects next title/chapter/track/index ► PLAY - starts video/audio play - selects previous title/chapter/track/index or beginning current title/chapter/track/index 3D SOUND - selects stereo, Dolby Surround, 3D Sound or Multichannel sound PONDOES DVD dts DOLBY Disc loading tray ▲ OPEN/CLOSE - opens/closes the disc tray **II** PAUSE - interrupts video/audio play or steps to the next picture frame ■ STOP - stops video/audio play **LEVEL** - headphone volume control **PHONES** - for connecting headphones

Rear of player Power supply socket - connection to the mains **Audio connections** Digital audio output connector (optical) - connection to digital (optical) equipment Digital audio output connector (coaxial) - connection to digital (coaxial) equipment Audio /LR - connection to an amplifier, receiver or stereo system TV connections Video (CVBS) - for connection to a TV with CVBS video inputs S-Video (Y/C) - for connection to a TV with S- Video (Y/C) inputs TV OUT (TV) - for connection to a TV with Euroconnector Euroconnector (AUX) - for connection to your VCR LEFT CENTER LEFT FRONT Multichannel connections (For connection to a multichannel receiver) - center speaker connection - subwoofer connection

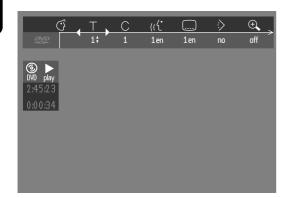
Caution: Do not touch the inner pins of rear panel connectors. Electrostatic discharge may cause permanent damage to the unit.

front speakers connectionssurround speakers connections

Display Front (left and right) speakers active C Center speaker active (6 Test tone active DIGITAL SURROUND Active audio format SL SR Surround (left and right) speakers active SW Subwoofer active DVD disc inserted VCD (V)CD disc inserted Indicates current player function: Play, Pause, Search, etc. **DVD TITLE number** TITLE **DVD CHAPTER number** CHAPTER VCD/CD TRACK number TRACK TIME in hours, minutes and seconds TOTAL TIME in hours, minutes and seconds SCAN A -B REPEAT SHUFFLE CHAPTER TITLE TRACK REPEAT CHAPTER/TITLE/TRACK active (((O Remote control active (flashing) EIS FTS active **SCAN** SCAN active A-B REPEAT **REPEAT A-B active** SHUFFLE SHUFFLE active

Remote control TV MUTE ^I ♥ **STANDBY** - DVD-mode: selects Stereo, Dolby Surround, 3D Sound or Multi Channel reproduction **REPEAT** - TV-mode: mute ON/OFF - repeat chapter, track, title, disc TV MUTE **REPEAT A-B DVD/TV** switch - repeat sequence - DVD mode/TV mode selector REPEAT SHUFFLE **SHUFFLE** - playback in random order (1) 2 **SCAN** - playback of the first 10 seconds **(5)** 6 of each chapter within a title (DVD) or the first 10 seconds of 8 each track on a disc (VCD/CD) (0) 0-9 numerical key pad RETURN ОК **DVD MENU RETURN** - select DVD-defined menu - go back to previous menu step _ V0L VOL + **MENU OSD** OK - acknowledge menu selection - (On-Screen Display) on/off (hŽ (T) (c) PROG +/-- DVD mode: up/down cursor \bigcirc (<u>v</u> 44 4 movement - search backward / previous - TV mode: Program up/down chapter or track VOL +/-- DVD mode: left/right cursor - search forward / next chapter or movement - TV mode: Volume up/down track - play [....] **PHILIPS** - subtitle language selector - pause or still frame /step frame (1,5 - audio language selector - stop Τ - select title \triangleright - slow motion - select chapter V - activate FTS - select DVD camera angle - enlarge video image

On screen display information



Menu bar/Status window

- User preference
- → Title/Track
- Chapter/Index
- ((﴿: Audio language
- Subtitle language
- Angle
- ⊕ Zoom
- ☼ Colour
- ✓ Video FTS
- Sound

- Slow motion
- ≪ Fast motion
- Time search



Status window icons

The status window displays the current status of the player and is displayed together with the first part of the menu bar, if activated in the Features menu (see Personal Preferences).

General



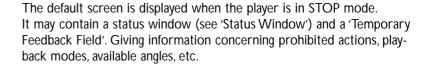




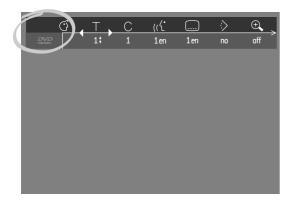
Tray status



Default screen







Temporary Feedback Field icons

repeat Repeat All
title Repeat Title
track Repeat Track
chapter Repeat Chapter

Shuffle Shuffle

Shuffle Repeat

Repeat A to end

Repeat A-B

Angle

Child Lock On

Child Safe

Resume

Action prohibited

General notes

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the player. These are shown in the following drawing.
 - Please refer to your TV, VCR, Stereo System and any other User Manual(s) as necessary to make the optimal connections.
- Do not connect your DVD-player via your VCR, because the video quality could be distorted by the copy protected system.
- For better sound reproduction you can connect the player audio outputs to your amplifier, receiver, stereo system or A/V equipment.
 For this see 'Connecting to audio equipment' and 'Multi-Channel sound connections' on the next page.

Caution: Do not connect the player's audio output to the phono input of your audio system.

Connect to a TV

 Connect the Euroconnector to the corresponding connector on the TV using the Euroconnector cable supplied (1).

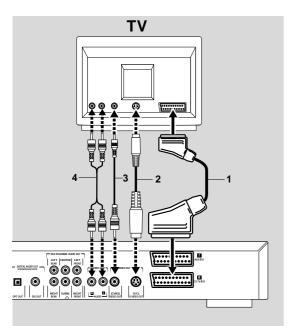
If your TV is not equipped with a Euroconnector you can select one of the following alternative connections:

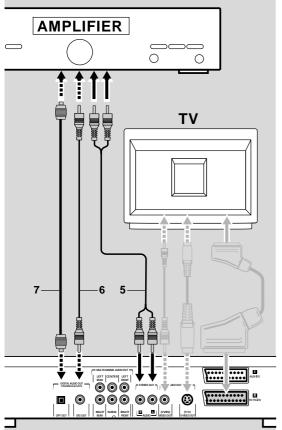
S-Video (Y/C) connection

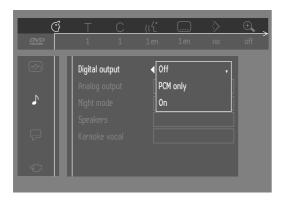
- 1 Connect the S-Video socket to the corresponding socket on the TV using an optional S-Video cable (2).
- **2** Connect the audio Left and Right output sockets to the corresponding sockets on the TV using the audio cable supplied **(4)**.

Video CVBS connection

- 1 Connect the Video socket to the corresponding socket on the TV using the video cable supplied (3).
- **2** Connect the audio Left and Right output sockets to the corresponding sockets on the TV using the audio cable supplied **(4)**.







Connecting to optional equipment

Connecting to an amplifier equiped with two channel analog stereo

 Connect the audio Left and Right output sockets to the corresponding sockets on your amplifier, receiver or stereo system.
 For this use the audio cable supplied (5).

Connecting to an amplifier equiped with two channel digital stereo (PCM)

- 1 Connect the player's digital audio output (optical **7** or coaxial **6**) to the corresponding input on your amplifier.
 - For this use an optional digital (optical 7 or coaxial 6) audio cable.
- You will need to activate the player's digital output (see 'Personal Preferences').

Connecting to an A/V receiver with multi-channel decoder (Dolby, MPEG 2 and DTS)

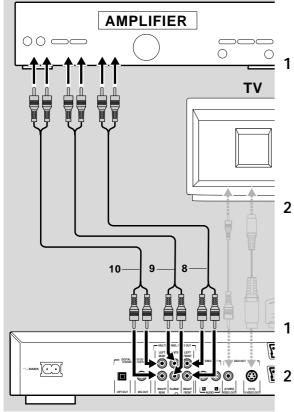
Digital Multi channel sound

Digital multi channel connection provides the optimum sound quality. For this you need a multichannel A/V receiver that supports one or more of the audio formats supported by your DVD player (MPEG 2, Dolby Digital (AC3) and DTS). For this you can check the receiver manual and the logos on the front of the receiver.

- 1 Connect the player's digital audio output (optical 7 or coaxial 6) to the corresponding input on the receiver using an optional digital (optical 7 or coaxial 6) audio cable.
- 2 You will need to activate the player's digital output (see 'Personal Preferences').

Note: If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound. The audio format of the DVD disc in play is displayed in the Status Window, when changing the language.

6 Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multichannel decoder. If your receiver does not contain a decoder, you can make the analog connections as described in the next chapter ('Connecting to a multichannel A/V receiver with 6 channel connectors') to obtain 6 Channel Digital Surround Sound.



Analog connection to a multichannel A/V receiver with 6 CH connectors

This DVD player contains a multichannel decoder. This enables playback of DVDs recorded in Multichannel Surround without the need for an optional decoder.

1 Connect the audio outputs for Center speaker and Subwoofer connection (9) to the corresponding inputs on your receiver.

Note: If the subwoofer is equipped with its own amplifier, the Subwoofer connection should be connected to the subwoofer directly.

Connect the audio Left and Right outputs for Front speaker connection (8) to the corresponding input sockets on your receiver.

Connect the audio Left and Right outputs for Surround speaker connection (10) to the corresponding inputs on your receiver.

2 Make the appropriate Sound settings for Analog Output and Speaker Settings in the Personal Preferences menu.

Connecting to an amplifier equiped with Dolby Surround™

Dolby Surround sound

Preferences menu.

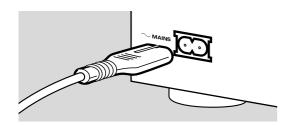
Connect the player to the TV and connect the player's audio Left and Right output sockets to the corresponding inputs on the Dolby Surround™ Audio/Video receiver, using the audio cable supplied (4). Make the appropriate Sound settings for Analog Output in the Personal

If your amplifier is equipped with a Dolby Digital™ decoder

• Connect the player as described in chapter 'Connecting to an A/V receiver with multi channel decoder'.

If your TV set is equipped with a Dolby Surround™ decoder

• Connect the player to the TV as described in chapter 'Connecting to a TV'.



Connecting the power supply

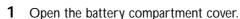
- 1 Plug the female end of the power cable supplied into the Power connector on the rear of the player.
- **2** Plug the male end of the cord into an AC outlet.

Note: The player automatically adjusts to the local mains voltage. When the player is in the "STANDBY/OFF" position, it is still consuming some power. If you wish to disconnect your player completely from the mains, withdraw the plug from the AC Outlet.

Caution: Only qualified service personnel should remove the cover or attempt to service this device.

Infra red remote control

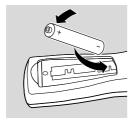
Loading the batteries



- 2 Insert two 'AA' (LR-6) batteries as indicated inside the battery compartment.
- 3 Close the cover.

Caution: Do not mix old and new batteries. And never mix different types of batteries (standard, alkaline, etc.)





General explication

About this manual

This manual gives the basic instructions for operating this DVD player. Some DVD discs however are produced in a way that requires specific operation or allows only limited operation during playback. In these cases the player may not respond to all operating commands. When this occurs, please refer to the instructions in the disc inlay. When a appears on the TV screen, the operation is not permitted by the player or the disc.

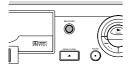
Remote control operation

- Unless otherwise stated, all operations can be carried out with the remote control. Always point the remote control directly at the player, making sure there are no obstructions in the path of the infrared beam.
- When there are corresponding keys on the front panel, they can also be used.

Menu bar operation

- A number of operations can also be carried out via the menu bar on the screen. The menu bar can be called up by pressing any of the following keys on the remote control: MENU OSD, T, C, Angle, Audio Language, Subtitle Language, Zoom and FTS.
- The following functions can be operated via the menu bar:
 - Personal Preferences;
 - Title/track selection;
 - Chapter/Index selection;
 - Audio language;
 - Subtitle language;
 - Angle;
 - Zoom;
 - Colour;
 - Video FTS;
 - Sound;
 - Picture by picture;
 - Slow motion;
 - Fast motion;
 - Time search.
- The various items can be selected with the ▼/▲ keys or by pressing the relevant keys on the remote control.
- By pressing **MENU OSD** the menu bar will disappear from the screen.
- When selecting an item in the menu bar, the selected item will be highlighted and the cursor keys (on the remote control), to operate this item are displayed below the icon.
- < or > indicates that more items are available at the left/right hand side of the menu bar. Press ◀ or ▶ to select these items.

Switching on





Switch on the TV and select the video input for your DVD-Video player.

2 Press STANDBY.

➤ The player display lights up, and the 'Virgin Mode Screen' appears.

The 'Virgin Mode' will only occur after the very first start up of the player. In 'Virgin Mode' you may have to set your personal preferences for some of the player's most relevant items. See 'Virgin Mode' in the following.

Virgin Mode

General:



In 'Virgin Mode' you may have to set your preferences for some of the player features. Depending on the kind of TV, settings will have to be made manually or they will be taken over automatically from the TV. When the DVD-player is connected to a Home Cinema system, settings will also be taken over automatically.

Manual operation:

After switching on the player for the very first time the 'Virgin Mode Screen' will appear (see 'Switching On').

The menu for the first item to be set is displayed and the first option is highlighted.

- Use the ▼ ▲ keys to go through the options in the menu. The icon of the selected option will be highlighted.
- Use **OK** to confirm your selection and to select the next menu.

Automatic setting:

When settings will be taken over from your TV or Home Cinema system, the message 'Auto configuring in process' will appear.

Menus for which no settings are available will be displayed. They have to be set manually.

Note: Preferences have to be set in the order in which the item menus will appear on the screen.

The 'Virgin Mode' will only be cancelled after the settings for the last item have been confirmed.

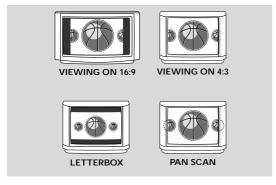
If any other keys than ▼ ▲ or **OK** are pressed, will appear on the screen.

If the player is switched off while setting personal preferences, all preferences have to be set again after switching the player on again.









The following items may have to be set in Virgin Mode: Menu language

The On Screen Menus will be displayed in the language you choose. You can choose from 8 different languages.

Audio language

The sound will be in the language you choose provided this is available on the disc in play. If not, speech will revert to the first spoken language on the disc. You can choose from 16 different languages.

Subtitle language

The subtitles will be in the language you choose provided this is available on the disc in play. If not, subtitles will revert to the first subtitle language on the disc. You can choose from 16 different languages.

TV Shape

If you have a wide screen (16:9) TV, select 16:9.

If you have a regular (4:3) TV, select 4:3.

In this case you can also select between:

Letterbox for a 'wide-screen' picture with black bars top and bottom, or Pan Scan, for a full-height picture with the sides trimmed. If a disc has Pan Scan, the picture then moves (scans) horizontally to keep the main action on the screen.

Country

Select your country. This is used as input for the 'Parental Control' feature. (see 'Access Control')

Note: All these items may have to be set after first start up ('Virgin Mode'). After that they can always be adapted in the Personal Preferences Menu.

Personal preferences

In this mode you can set your personal preferences for some of the player features.

General operation:

- Press MENU OSD on the remote control.
- Select () in the menu bar.
 - ➤ The Personal Preferences menu appears.
- Use the ◀ ► ▲ ▼ keys to toggle through the menus, sub menus and submenu options.
 - ➤ When a menu item is selected, the cursor keys (on the remote control) to opeate the item are displayed next to the item.
- Press OK to confirm and return to the main menu.

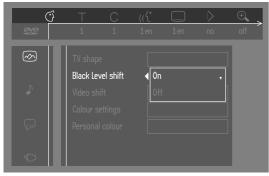
The following items can be adapted:

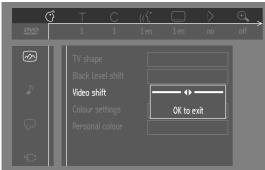
Picture

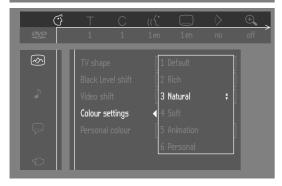
- TV Shape See 'Virgin Mode'

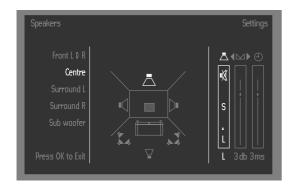












- Black level shift (NTSC only)

Adapts the colour dynamics to obtain richer contrasts. Select ON or OFF.

- Video shift

Factory setting is such that the video will be centered on your screen. Use this setting to personalize the position of the picture on your TV by scrolling it to the left or right.

- Colour settings

You can select one of five predefined sets of colour settings and one set (Personal) which you can define yourself.

- Personal colour

Allows you to fine-tune the selected colour settings saturation, brightness and contrast.

Sound

- Digital output

Factory setting ON means that both coaxial and optical outputs are switched on. If you are not connecting equipment with a digital input, change the setting to OFF.

If your equipment doesn't include a digital multi channel decoder, set the digital output to PCM (Pulse Code Modulation). Both coaxial and optical outputs are then switched on. (See appendix)

- Analog output

Select Stereo, Dolby Surround, 3D Sound or Multi Channel. (See appendix)

- Night Mode

Optimizes the dynamics of the sound with low volume playback.

- Speaker settings

Allows you to select speaker settings, volume balance and delay time and to test the speaker settings.

Speaker settings are only active on the Analog Multi Channel Output. (See appendix)

- Karaoke vocal

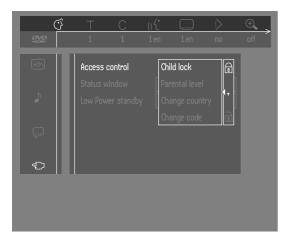
Put this setting to ON only when a multi channel karaoke DVD is being played. The karaoke channels on the disc will then be mixed to a normal stereo sound.

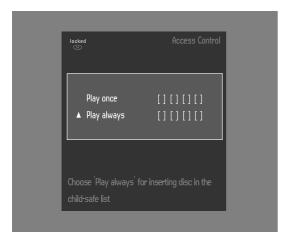
Language

Select the required Menu, Audio and Subtitle language. See 'Virgin Mode'. Audio language and Subtitle language can also be adapted via the Menu bar on the screen.









Features

- Access Control

Access Control contains the following features:

Child Lock - When Child Lock is set to ON, a 4-digit code needs to be entered in order to play discs.

Parental control - Allows the conditional presentation of DVD discs containing Parental Control information. (see 'Access Control')

- Status Window

Displays the current status of the player and is displayed together with the menu bar. In STOP mode it is displayed together with the 'Temporary Feedback' Field in the default screen. See 'On Screen Display information; Factory setting is ON. Select OFF to suppress display of the Status Window.

Access control; child lock (DVD and VCD)

Activating/deactivating the child lock

- 1 In Stop mode, select ACCESS CONTROL in the Features menu using the V/▲ keys.
- **2** Enter a 4-digit PIN code of your own choice.
- **3** Enter the code a second time.
- 4 Move to Child lock using the **▼**/**▲** keys.
- 5 Move to ⓐ / ⓐ using the ▶ key.
- 6 Select ⓐ using the ▼/▲ keys.
- Press OK to confirm or ◀ to confirm and press ◀ again to exit the menu.
 Now unauthorized discs will not be played unless the 4-digit code is entered.
- 8 Select 1 to deactivate the Child Lock.

Note: Reconfirmation of the 4-digit PIN code is necessary when:

The code is entered for the very first time (see above);

The code is changed (see 'Changing the 4-digit code');

The code is cancelled (see 'Changing the 4-digit code');

Both Child Lock and Parental Control are switched Off and the code is requested.

Authorizing discs

- Insert the disc. See 'Loading a disc' in the following.
 - ➤ The 'child protect' dialog will appear.

You will be asked to enter your secret code for 'Play Once 'or 'Play Always.' If you select 'Play Once', the disc can be played as long as it is in the player and the player is in the ON position. If you select 'Play Always', the disc will become child safe (authorized) and can always be played even if the Child Lock is set to ON.

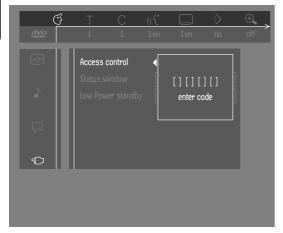
Notes: The player memory maintains a list of 50 authorized ('Child safe') disc titles. A disc will be placed in the list when 'Play Always' is selected in the 'child protect' dialog. Each time a 'child safe' disc is played it will be placed on top of the list When the list is full and a new disc is added, the last disc in the list will be removed from the list.

Double sided DVD discs may have a different ID for each side. In order to make the disc 'child safe', each side has to be authorized.

Multi volume VCD disc may have a different ID for each volume. In order to make the complete set 'child safe', each volume has to be authorized.

Deauthorizing discs

- Insert the disc. See 'Loading a disc' in the following.
- Playback starts automatically.
 Press while ⊕ is visible.
- The 'child protect' dialog will appear. 'Play always' is highlighted.
 If ▶ is pressed, playback continues and the disc is NOT deauthorized.
- Press ▲ to select 'Play Once'.
 The disc is now deauthorized.





Access control; Parental control (DVD-Video only)

Movies on DVD discs may contain scenes not suitable for children. Therefore discs may contain 'Parental Control' information which applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8 and alternative, more suitable scenes are available on the disc. Ratings are country dependent. The 'Parental Control' feature allows you to prevent discs from being played by your children or to have certain discs played with alternative scenes.

Activating/Deactivating Parental Control

- 1 In Stop mode, select ACCESS CONTROL in the Features menu using the ▼/▲ keys.
- **2** Enter your 4-digit PIN code. If necessary enter the code a second time.
- 3 Move to Parental Control using the **▼**/**▲** keys.
- 4 Move to VALUE ADJUSTMENT (1-8) using the ▶ key.
- 5 Then use the **▼**/**▲** keys or the numerical keys on the remote control to select a rating from 1 to 8 for the disc inserted.

Rating 0 (displayed as '- -'):

Parental Control is not activated. The Disc will be played in full.

Ratings 1 to 8:

The disc contains scenes not suitable for children. If you set a rating for the player, all scenes with the same rating or lower will be played. Higher rated scenes will not be played unless an alternative is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, play will stop and the 4-digit code has to be entered.

6 Press **OK** or **◄** to confirm and press **◄** again to exit the menu.

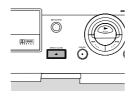
Country

- 1 In Stop mode, select ACCESS CONTROL in the Features menu using the ▼/▲ keys.
- 2 Enter the old code.
- 3 Move to CHANGE COUNTRY using the ▼ key.
- 4 Press the ► key.
- 5 Select a country using **▼**/**▲**.
- 6 Press OK or ◀ to confirm and press ◀ again to exit the menu.

Changing the 4-digit code

- In Stop mode, select ACCESS CONTROL in the Features menu using the ▼/▲ keys.
- **2** Enter the old code.
- 3 Move to CHANGE CODE using the ▼ key.
- 4 Press the ► key.
- **5** Enter the new 4-digit PIN code.
- **6** Enter the code a second time and reconfirm with **OK**.

Note: If you forgot your code, it can be cancelled by pressing ■ four times in the 'child protect' dialog. You can then enter a new code (twice!) as described above.





Loading discs

- 1 Press OPEN/CLOSE on the front of the player. The disc loading tray opens.
- 2 Lay your chosen disc in the tray, label side up (also when a double sided DVD disc is inserted). Make sure it is sitting properly in the correct recess.
- Gently push the tray, or press OPEN/CLOSE, to close the tray.
 ➤ RERI appears in the status window and on the player display and playback starts automatically.

Note: If 'Child Lock' is set to ON and the disc inserted is not in the 'child safe' list (not authorized), the PIN code must be entered and/or the disc has to be authorized. (see 'Access Control')

3D-Sound

See Appendix.

Playing a DVD-video disc



Playing a title

- ➤ After inserting the disc and closing the tray, playback starts automatically and the status window and the player display show the type of disc loaded as well as information about the disc's contents and playing time. The disc may invite you to select an item from a menu. If the selections are numbered, press the appropriate numerical key; if not, use the ∇/\triangle ,
- **◄/►** keys to highlight your selection, and press **OK**.
- ➤ The currently playing title and chapter number are displayed in the menu bar and the player display.

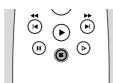
The elapsed playing time is shown in the status window and the player display.

• If required, you can use the **3D-SOUND** key to select Stereo, Dolby Surround, 3D-Sound or Multichannel reproduction.

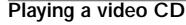
Play may stop at the end of the Title, this can result in return to menu. To go on to the next title, press ▶.

- To stop play at any other time, press ■.
 - ➤ The default screen will then appear, giving information about the current status of the player.
- You can resume play from the point at which you stopped. Press ► and when you see the Resume icon ► on the screen, press ► again.
 - ➤ The RESUME feature applies, not only to the disc in the player, but also to the last four discs you have played. Simply reload the disc, press ➤ and when you see the Resume icon I➤ on the screen, press ➤ again.

Note: Since it is usual for DVD movies to be released at different times in different regions of the world, all players have region codes and discs can have an optional region code. If you load a disc of a different region code to your player, you will see the region code notice on the screen. The disc will not play, and should be unloaded.

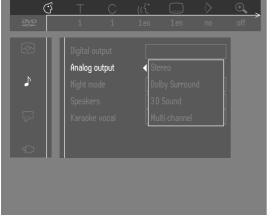






Playing a disc

- After inserting the disc and closing the tray, playback starts automatically and the status window and the player display show the type of disc loaded as well as information about the disc's contents and playing time
- The disc may invite you to select an item from a menu. If the selections are numbered, press the appropriate numerical key.
- The currently playing track number is displayed in the menu bar and the player display. The elapsed playing time is shown in the status window and the player display.
- If required, you can use the **3D-SOUND** key to select Stereo, Dolby Surround, 3D-Sound or Multichannel reproduction.
- To stop play at any time, press ■.
 - ➤ The default screen will then appear.
- You can resume play from the point at which you stopped. Press ▶ and when you see the Resume icon on the screen ▶, press ▶ again. The RESUME feature applies, not only to the disc in the player, but also to the last four discs you have played. Simply reload the disc, press > and when you see the Resume icon on the screen ▶, press ▶ again.



General features

Note: Unless stated otherwise, all operations described are based on remote control operation. A number of operations can also be carried out via the menu bar on the screen. (see 'Menu bar operation')



When a disc has more than one title or track (which you can see from both the menu bar and the player display), you can move to another title as follows:

- Press T (title), then press ► briefly during play to select the next title/track.
- Press T (title), then press ► briefly during play to return to the beginning of the current title/track. Press ■ briefly to step back to the previous title/track.
- To go directly to any title or track, select T (title), then enter the title number using the numerical keys (0-9).

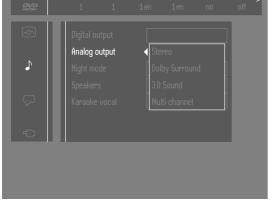
Note: If the number has more than one digit, press the keys in rapid succession.



When a title on a disc has more than one chapter or a track has more than one index (which you can see from the player display and on the menu bar), you can move to another chapter/index as follows:

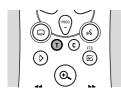
- Press ► briefly during play to select the next chapter/index.
- Press ► briefly during play to return to the beginning of the current chapter/index. Press ► briefly to step back to the previous chapter/index.
- To go directly to any chapter or index, select C (chapter), then enter the chapter or index number using the numerical keys (0-9).

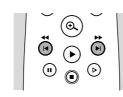
Note: If the number has more than one digit, press the keys in rapid succession.

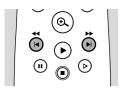


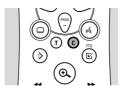












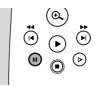
Slow Motion



- Use the ▼ keys to enter the Slow Motion menu.
 - ➤ The player will now go into PAUSE mode.
- Use the \blacktriangleleft ▶ keys to select the required speed: -1, -1/2, -1/4 or -1/8 (backward); +1/8, +1/4, +1/2 or +1 (forward).
- Select 1 to play at normal speed again.
- If **II** is pressed, the speed will be set to 0.
- To exit slow motion mode, press ➤ or ▲.

You can also select Slow Motion speeds by using the \triangleright button on the remote control.

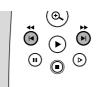
Still Picture and Step Frame



- Select ← (picture by picture) in the menu bar.
- Use the ▼ key to enter the picture by picture menu.
 - ➤ The player will now go into PAUSE mode.
- Use ◀ ► keys to select previous or next picture.
- To exit Picture by picture mode, press ➤ or ▲.

You can also step forward by using the **■** repeatedly on the remote control.

Search



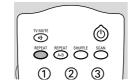
- Select <>> (Fast motion) in the menu bar.
- Use the ▼ keys to enter the Fast Motion menu.
- Use the
 ★ keys to select the required speed: -32, -8 or -4 (backward);

 +4, +8, +32 (forward).
- Select 1 to play at normal speed again.
- To exit Fast Motion mode, press ➤ or ▲.

To search forward or backward through diffirent speeds, you can also hold down ◀◀ or ▶▶.

Repeat

DVD-Video Discs - Repeat chapter/title/disc



CHAPTER

REPEAT

TITLE

- To repeat the currently playing chapter, press REPEAT:
 - REPEAT CHAPTER appears on the player display.
- To repeat the currently playing title, press REPEAT a second time
 - REPEAT TITLE appears on the display.
- To repeat the entire disc, press **REPEAT** a third time
 - > REPEAT appears on the display.
- To exit Repeat mode, press **REPEAT** a fourth time.

Video CDs - Repeat track/disc



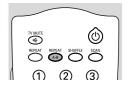
REPEAT

- To repeat the currently playing track, press REPEAT.
 - REPEAT TRACK appears on the player display.



REPEAT

- To repeat the entire disc, press **REPEAT** a second time.
 - > REPEAT appears on display and screen.
- To exit Repeat mode, press **REPEAT** a third time.



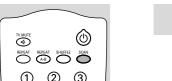
A-B REPEAT

Repeat A-B

To repeat or loop a sequence in a title:

- Press REPEAT A-B at your chosen starting point;
 - ➤ A- appears on the screen.
- Press REPEAT A-B again at your chosen end point;
 - ➤ A-B REPEAT appears on the display, and the repeat sequence begins.
- To exit the sequence, press **REPEAT A-B**.

Scan





SHUFFLE

Plays the first 10 seconds of each chapter/index on the disc.

- Press SCAN.
- To continue play at your chosen chapter/index, press SCAN again or press ►.

Shuffle

DVD-Video discs

This shuffles the playing order of chapters within a title, if the title has more than one.

- Press SHUFFLE during play.
 - ➤ The SHUFFLE icon appears on the screen for about 2 seconds.
- To return to normal play, press SHUFFLE again.
 Video CDs

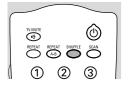
This shuffles the playing order of the tracks, if the disc has more than one.

- Press SHUFFLE during play.
 - ➤ The SHUFFLE icon appears on the screen for about 2 seconds.
- To return to normal play, press **SHUFFLE** again.

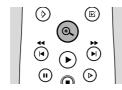
Time search

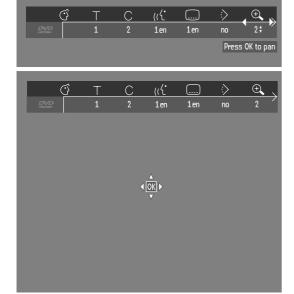
The Time Search function allows you to start playing at any chosen time stamp.

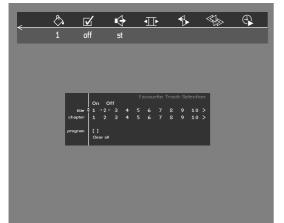
- Select (Time Search) in the menu bar.
- Press ▼.
 - ➤ The player will now go into PAUSE mode.
 - ➤ A time edit box appears on the screen showing the elapsed playing time of the current disc.
- Use the digit keys to enter the required start time. Enter hours, minutes and seconds from right to left in the box.
 - ➤ Each time an item has been entered, the next item will be highlighted.
- Press **OK** to confirm the start time.
 - ➤ The time edit box will disappear and play starts from the selected time position.











Zoom

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

- Select ⊕ (Zoom) in the menu bar.
- Press ▼/▲ to activate the ZOOM function and select the required zoom factor; 1.33 or 2 or 4.
 - ➤ The player will go into Pause mode.
 - ➤ The selected zoom factor appears below the Zoom icon in the menu bar and 'Press OK to pan' appears below the menu bar.
 - ➤ The picture will change accordingly.
- Press OK to confirm the selection.
 - ➤ The panning icons appear on the screen: ▲ ▼ ◀ ▶ and OK.
- Use the ▲ ▼ ◀ ► keys to pan all over the screen.
- When OK is pressed only the zoomed picture will be shown on the screen.
- If you wish to zoom at any moment, press ⊕ (Zoom) and select the required zoom factor as described above.
- To exit Zoom mode:
 - Press ►
 - Playback will resume
 - Press STOP, MENU OSD.

FTS-Video

- The FTS-Video function allows you to store your favourite titles and chapters (DVD) and favourite tracks and indexes (VCD) for a particular disc in the player memory.
- Each FTS program can contain 20 items (titles, chapters).
- Each time an FTS program is played it will be placed on top of the list.
 When the list is full and a new program is added, the last program in the list will be removed from the list.
- The selections can be called up and played at any time.

Storing a FTS-Video Program

- In STOP mode, select Video FTS in the menu bar.
- Press ▼ to open the menu.
 - ➤ The Video FTS menu appears.
- Press ◀ or ► or FTS to select ON or OFF.

Storing titles/tracks

- Press ▼ to select TITLES.
- Use ▶ and ◀ to select the required title.
- Press **OK** if you wish to store the entire title.
 - The title number will be added to the list of selections.

Storing chapters/indexes

- Press ▼ on the selected title number.
 - ➤ The title number will be marked and the highlight moves to the first available chapter number for this title.
- Use ▶ and ◀ to select the required chapter number.
- Press OK to confirm the selection.
 - ➤ The title/chapter selection will be added to the list of selections.
- Press OK or MENU OSD to exit the Video FTS menu.

Erasing a FTS-Video Program

- In STOP mode, select Video FTS in the menu bar.
- Use ▼ to select PROGRAM.
- Use ▶ and ◀ to select the required selection number.
- Press OK to erase the selection.
- Press MENU OSD to exit.

If you wish to erase all selections:

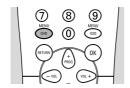
- In STOP mode, select **FTS Video** in the menu bar.
- Use ▼ to select CLEAR ALL.
- Press OK.
 - ➤ All selections will now be erased.
- Press MENU OSD to exit.

Special DVD-features

Checking the contents of DVD-Video discs: Menus

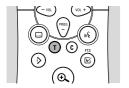
For titles and chapters, selection menus may be included on the disc. The DVD's menu feature allows you to make selections from these menus. Press the appropriate numerical key; or use the \blacktriangledown , \blacktriangle , \blacktriangleright , \blacktriangleleft keys to highlight your selection, and press OK.

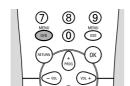
Title menus



- Press DVD MENU.
 - ➤ If the current title has a menu, this now appears on the screen. If no menu is present in the title, the disc menu will be displayed.
- The menu can list camera angles, spoken language and subtitle options, and chapters for the title.
- To remove the title menu, press DVD MENU again.

Disc menu





- Press T followed by DVD MENU.
 - ➤ The disc menu is displayed.
- To remove the disc menu, press T again followed by DVD MENU.

Camera Angle

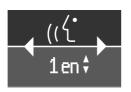
If the disc contains sequences recorded from different camera angles, the angle icon appears, showing the number of available angles, and the angle being shown. You can then change the camera angle if you wish.





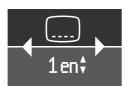
- Use the V/A keys to select the required angle in the angle icon.
- To go to any angle directly, enter the angle number using the numerical keys (0-9).
 - ➤ After a small delay, play changes to the selected angle. The angle icon remains displayed until multiple angles are no longer available.

Changing the audio language



- Select ((< (Audio) in the menu bar.
- Press ((\(\frac{1}{2} \) or \(\neq \)/▲ repeatedly to step through the different languages.
- You can enter the required language number directly using the numerical keys (0-9).

Subtitles



- Select (Subtitle) in the menu bar.
- Press ___ or ▼/▲ repeatedly to step through the different subtitles.
- You can enter the required subtitle number directly using the numerical keys (0-9).

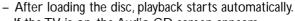
Special VCD-Features

Playback Control (PBC)

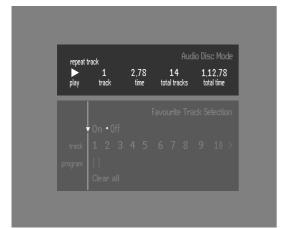
- Load a Video CD with PBC and press ►.
 - ➤ The PBC menu appears on the TV screen.
- Go through the menu with the keys indicated on the TV screen until your chosen passage starts to play. If a PBC menu consists of a list of titles, you can select a title directly.
- Enter your choice with the numerical keys (0-9).
- Press RETURN to go back to the previous menu.

Playing an audio CD





- If the TV is on, the Audio CD screen appears.
- The number of tracks and the total playing time will be shown on the screen and the player display.
- During play, the current track number and its elapsed playing time will be shown on the screen and the player display.
- Playback will stop at the end of the disc.
- To stop play at any other time, press ■.



Pause



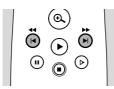
- Press II during play.
- To return to play, press ►.

Search



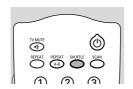
- To search forwards or backwards through the disc at 4x normal speed, hold down → for about 1 second during play.
 - > Search begins, and sound is partially muted.
- To step up to 8x normal speed, press or ➤ again.
 - > Search goes to 8x speed, and the sound is muted.
- To return to 4x normal speed, press or ▶ again.
- To end the search, press ➤ or as desired.

Moving to another track



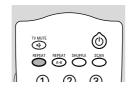
- Press ► briefly during play to step forward to the next track.
- Press
 I briefly during play to return to the beginning of the current track. Press
 I briefly again to step back to the previous track.
- To go directly to any track, enter the track number using the numerical keys (0-9).

Shuffle



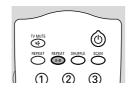
- Press SHUFFLE during play.
 - ➤ The order of the tracks is changed.
- To return to normal play, press SHUFFLE again.

Repeat track/disc



- To repeat the currently playing track, press REPEAT.
 - > REPEAT TRACK appears on the display.
- To repeat the entire disc, press **REPEAT** a second time.
 - > REPEAT appears on the display.
- To exit Repeat mode, press **REPEAT** a third time.

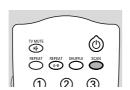
Repeat A-B



To repeat or loop a sequence:

- Press REPEAT A-B at your chosen starting point;
 - ➤ A- appears on the player display.
- Press REPEAT A-B again at your chosen end point;
 - ► A-B appears on the display, and the repeat sequence begins.
- To exit the sequence, press **REPEAT A-B** again.

Scan



Plays the first 10 seconds of each track on the disc.

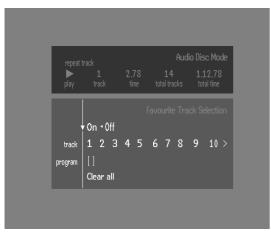
- Press SCAN.
- To continue play at your chosen track, press SCAN again or press ▶.

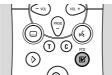
FTS (Favourite Track Selection)

- The FTS feature allows you to store your favourite tracks for a particular disc in the player memory.
- Each FTS program can contain 20 tracks.
- Each time an FTS program is played it will be placed on top of the list. When the list is full and a new program is added, the last program in the list will be removed from the list.
- The selections can be called up and played at any time.

Storing an FTS-program

1 Load a disc and go to STOP mode.





- **2** Press **FTS** or use the **◄ ▶** keys to set FTS to ON.
- 3 Use ▼ to go to the list of available tracks.
- 4 Use ◀ and ▶ to select tracks from the list. To go directly to any track, enter the track number using the numerical keys (0-9).
- 5 Store each track by pressing **OK**.
 - ➤ The track numbers will be added to the list of selected tracks.
 - ➤ The number of tracks and the playing time of the program will be shown on the audio screen and the player display.

When your FTS program is complete, press ▶ to start play, the FTS program will be automatically memorized.

Erasing a track from an FTS-program

- 1 Use ▼ to go to the list of selected tracks.
- 2 Use ◀ and ▶ to select the track number you wish to erase.
 To go directly to any track, enter the track number using the numerical keys (0-9).
- 3 Press OK.
 - ➤ The track number will be erased from the list of selected tracks.

Erasing the complete program

- Use ▼ to select Clear All and press OK.
 - ➤ The complete FTS program for the disc will be erased.

Before requesting service

If it appears that the DVD-Video player is faulty, first consult this checklist. It may be that something has been overlooked. Under no circumstances attempt to repair the system yourself; this will invalidate the warranty.

Look for the specific symptom(s). Then perform only the actions listed to remedy the specific symptom(s).

Symptom	Remedy	
No power	Check if both plugs of the mains cord are properly connected. Check if there is power at the AC outlet by plugging in another appliance.	
No picture	Check if the TV is switched on. Check the video connection.	
Distorted picture	Check the disc for fingerprints and clean with a soft cloth, wiping from centre to edge. Sometimes a small amount of picture distortion may appear .This is not a malfunction.	
Completely distorted picture with player menu	NTSC/PAL switch in wrong status, hold down the STOP button and press the NEXT button.	
No colour in picture with player menu	NTSC/PAL switch in wrong status, hold down the STOP button and press the NEXT button.	
Disc can't be played	Ensure the disc label is upwards. Clean the disc. Check if the disc is defective by trying another disc.	
No sound	Check audio connections. If using a HiFi amplifier, try another sound source.	
Distorted sound from HiFi amplifier	Check to make sure that no audio connections are made to amplifier phono input.	
No return to start-up screen when disc is removed	Reset by switching the player off, then on again. Check to see if the program requires another disc to be loaded.	
The player does not respond to the remote control	Aim the remote control directly at the sensor on the front of the player Avoid all obstacles which may interfere with the signal path. Inspect or replace the batteries.	
Distorted or B/W picture with DVD or Video CD disc	The disc format is not according to the TV-set used (PAL/NTSC)	
No audio at digital output	Check the digital connections Check the settings menu to make sure that the digital output is set to on. Check if the audio format of the selected audio language matches your receiver capabilities.	
Buttons do not work	Set the player in standby by using the STANDBY button on the front of the player. Press standby again to set the player back to ON.	
Player does not respond to all operating commands during playback	Operations are not permitted by the disc. Refer to the instructions in the disc inlay	

Cleaning discs

Some problems occur because the disc inside the player is dirty. To avoid these problems clean your discs regularly, in the following way:



When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the centre out.

Caution: Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for analog discs.

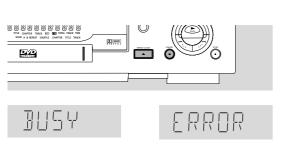
Diagnostic program

If the player is still faulty you can start the Diagnostic Program in the player.

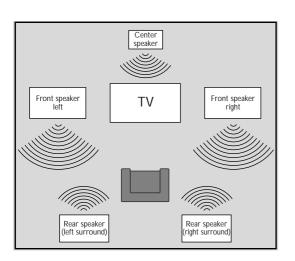
How does the Diagnostic Program work: you can operate the Diagnosis Program by following the instructions step by step.

Instructions

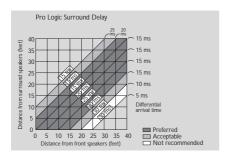
- 1 Unplug the power cord of the player.
- 2 Press the OPEN/CLOSE and II button simultaneously and keep them pressed while you plug the player.
 - ➤ On the display the message **BUSY** appears together with a counter. This counter indicates the termination of the test when zero is reached.
 - ➤ After a few minutes the message on the local display changes over from **BUSY** to **ERROR** or to **PASS**.
 - ➤ If the message ERROR appears on the display, there is apparently a failure in your player and your player should be repaired.
- 3 Consult your dealer or the Philips Customer Care Centre for the nearest Service Repair Shop in your country. The phone number is given in your warranty booklet.
- 4 If the message PASS appears on the display, there is apparently no failure in your player, in this case the failure can be caused by incorrect interpretation of the operating instructions or a wrong disc is used or your player is not correctly connected. In this case you should consult your dealer or the Philips Customer Care Centre for further assistance in solving the problem.
- 5 If the problem remains, then go to point 3 of this instruction to find the nearest repair shop.
- **6** Unplug the power cord of the player.
- **7** Replug the power cord in the AC outlet.



P A 5 5



Digital Surround Delay 10 5 0 ms 33 0 0 ms 0 ms 0 ms 0 ms 15 10 ms 16 25 0 ms 17 20 0 ms 18 20 0 ms 19 20 0 ms 19 20 0 ms 19 20 0 ms 10 ms 10



Speaker settings

6 Channel settings

Front speaker

L (Large): When the front speakers can reproduce low frequency signals below 120Hz

S (Small): When the front speakers cannot produce low frequency signals below 120Hz

Center Speaker*

L (Large): When the center speaker can reproduce low frequency signals below 120Hz

S (Small): When the center speaker cannot produce low frequency signals below 120Hz

Off : When the center speaker is not connected

Surround speakers

L (Large): When the surround speakers can reproduce low frequency signals below 120Hz

S (Small): When the surround speakers cannot produce low frequency signals below 120Hz

Off : When the surround speakers are not connected

Subwoofer

On : When you connect a subwoofer Off : When a subwoofer is not connected

* You can use your TV as center speaker. When center speaker is turned on, the audio L/R as well as the audio from the scart will contain the center speaker audio.

Delay times

The DVD player is set to reproduce correctly synchronized Digital Surround Sound in a listening area where the surround speakers are about 150cm nearer to the listening position than the front speakers, and the center speaker is in line with the front speakers. To adjust for other listening area arrangements, adapt delay times according to the following:

Digital Surround

Measure the distances in centimeters from the front speaker plane and from the surround speaker plane to the listening positioning plane. Subtract the surround distance from the front distance and divide by 30. The result is the required Surround Channel delay time in milliseconds. If the center speaker is on the front speaker plane, no center speaker delay is needed. If, however, it is nearer the listening position, measure the distance in centimeters between the front and center speaker planes, and divide by 30. The result is the required Center Channel delay time in milliseconds.

Dolby Surround

Add 15 milliseconds to the Surround Channel delay time calculated for Digital Surround.

If the Center Channel in Digital Surround mode is set, add 15 milliseconds to the Center Channel delay time.

Digital and Analog output Settings

Connected audio system	Digital out	Analog out
Amplifier or TV with two channel analog stereo	Off	Stereo
Amplifier or TV with Dolby Surround	Off	Dolby Surround
Amplifier with two channel digital stereo	PCM only	Stereo
A/V receiver with multi-channel decoder (Dolby AC-3, MPEG, DTS)	On	Stereo or Dolby Surround
Multichannel A/V receiver with 6-ch connectors	Off	Multi channel

3D Sound

In a setup without rear speakers (analog stereo output), 3D Sound remixes the six channels of digital surround (AC-3,MPEG-2) into a two speaker output, while retaining all of the original audio information. The result is the listening sensation of being surrounded by multiple speakers.

Notes