

## 1. What's in the box?



DVD player D-890 HX



User manual



Remote Control Unit



2x AAA batteries



A/V cable

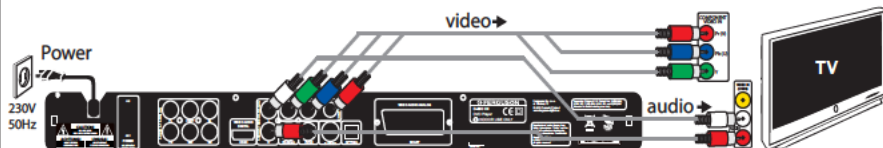
## 2. Connect - basic audio/video connections

### HDMI (Best quality, cable not supplied)



or

### Component (Better quality, cable not supplied) and stereo audio

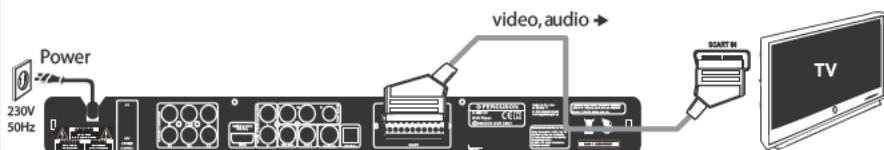


or

# Quick Start Guide

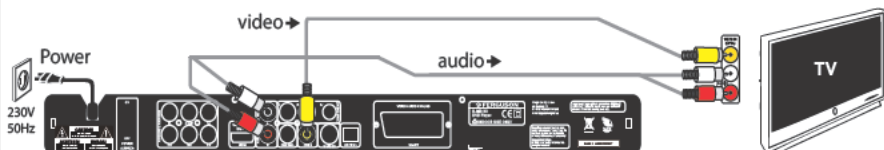
ENGLISH

## SCART (Good quality, cable not supplied)



or

## CVBS / Composite (Normal quality) and stereo audio



### 3. Setup

- 1 Press **⏻** to turn on.
- 2 Setup wizard (Setup-Assistent) will appear.
- 3 Select **🇬🇧** Menu OSD and press **▶**.
- 4 Use **▲ ▼** keys to select a language option in the menu and press **OK** to confirm.
- 5 Adjust other settings if needed
- 6 Press **SETUP** to exit.

### 4. Use

- 1 Playback may start automatically when a disc has been loaded in the disc tray.
- 2 If a disc menu appears on the TV, use **◀▶▲▼** keys to navigate in the DVD menu.
- 3 Press **PLAY** to start playback.
- 4 To stop playback, press **STOP**.

#### CAUTION!

Refer to the user manual for more information.

---

## Introduction

- 1 Supplied accessories
- 1 Cleaning discs
- 2 User manual
- 2 Software upgrade
- 3 Symbols used on the device
- 3 Setup

---

## Connections

- 4 Connecting to a TV
- 6 Connecting the power cord
- 7 Optional: Connecting to an Stereo System
- 7 Optional: Connecting to a Multi-channel Receiver
- 8 Optional: Connecting Digital AV Receiver
- 8 Optional: Connecting a supported USB devices

---

## Functional Overview

- 9 Front and Rear Panels
- 10 Remote Control Unit (RCU580)

---

## Getting Started

- 11 Step 1: Inserting batteries into the Remote Control
- 11 Step 2: Setting up the TV
- 12 Step 3: Setting language preference

---

## Disc Operation

- 14 Upscaling
- 14 Playable discs
- 14 Playing discs
- 15 Basic playback controls
- 15 Selecting various repeat/shuffle functions
- 15 Operation for video playback (DVD/VCD/SVCD)
- 16 OSD (On-Screen Display) (DVD/VCD/SVCD/XviD)
- 17 Special DVD Features
- 18 Special .avi (XviD) Features
- 19 Special VCD&SVCD Features
- 19 Playing a XviD disc
- 20 Playing pictures or audio files from the supported USB device
- 20 Playing JPEG/Picture CD

---

## DVD Setup Menu Options

- 22 General Setup Menu
- 22 Audio Setup Menu
- 24 Dolby Digital Setup Menu
- 24 Video Setup Menu
- 26 Preference Page
- 27 XviD Subtitle Setup Page

---

## Troubleshooting

---

## Specification

---

## Glossary



## Supplied accessories

Remote Control  
and  
two AAA batteries



## Cleaning discs

To clean a disc, use a micro fibre cleaning cloth and wipe the disc from the center to the edge in a straight line.

### CAUTION!

Do not use solvents such as benzene, thinner, commercially available cleaners, or anti-static sprays intended for discs. Since the optical unit (laser) of the DVD system operates at a higher power than regular DVD or CD players, cleaning CDs intended for DVD or CD players may damage the optical unit (laser). Therefore, refrain from using a cleaning CD.

## Safety Information

- Please observe all warnings and instructions on the equipment and contained in these operating instructions.
- Please carefully read this user's manual before using the device.
- To avoid electric-shock hazards, do not open the cabinet, refer servicing to qualified personnel only. If cabinet is opened warranty will be invalid.
- Please switch off completely the device during thunder, during abnormal phenomenon, before cleaning it and in case it remains out of service for a long period.
- Do not expose the device under the sunlight. And keep it away from the heat source or humid environments. Do not block ventilation holes of the device so that air can circulate freely.
- Please place the device in horizontal and stable conditions, keeping it away from vibrating.
- If device is moved from warmer place to a colder one some problem might occur. Please switch off the device and turn it on after 1 or 2 hours.
- Keep the device away from flower vases, tubs, sinks, etc., in order to avoid damaging the equipment. Do not touch power supply with wet hands.
- Don't put any objects on the device.
- Be sure to turn the device off and disconnect the AC power cord before cleaning the receiver surface. If the surface is dirty, wipe clean with a cloth which has been dipped in a weak soap/and/water solution and wrung out thoroughly, and then wipe again with a dry cloth.
- Do not connect cables while power is plugged.

# Introduction

---

- Do not use damaged cables for connections: you could cause fires.
- Please switch off completely the device while making all connections.
- The product purchased is a sophisticated electronic device which is not suitable for children under 18 years.
- We do not assume responsibility for damages caused to people or object, deriving from use of the device made by people under 18 years.

---

## User manual

Ferguson has used all the available means to ensure the latest information regarding its products. Ferguson does not give a warranty regarding the contents of this User Manual and waives any implied warranties regarding market value or fitness for specific purposes. The information contained herein provide guidelines allowing the operation and maintenance of the receiver.

Ferguson reserves the right to make changes, corrections or to translate the User Manual without giving prior notice of such changes. Therefore, it is recommended that users visit our website regularly to receive the latest information.

---

## Software upgrade

Periodically Ferguson will issue software upgrade to enhance your user experience.

- **To download and install the latest software to the DVD player**

Visit the Ferguson website [www.ferguson-digital.eu](http://www.ferguson-digital.eu) to check the availability of the latest software upgrade.



## Symbols used on the device

### The caution risk of electrical shock - do not open symbol

This symbol tells you that you are not allowed to open the device. Only authorized (service) technicians are allowed to open the box.

### The CE mark

This mark tells you that the device is following the provisions of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to the electromagnetic compatibility and the provisions of Council Directive 73/23/EEC and 93/68/EEC on the approximation of the laws of the Member States relating to low voltage and electrical safety.

### The double insulation symbol

This symbol tells you that the device is electrically safe within the normal use of the device as stated in the safety chapter.

### The RoHS mark

This mark tells you that the device is following The Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment 2002/95/EC (commonly referred to as the Restriction of Hazardous Substances Directive or RoHS)

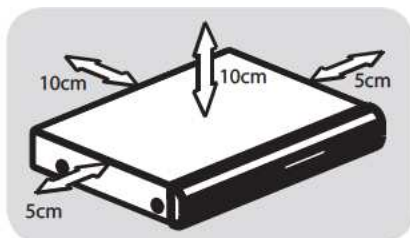
## Setup

### Finding a suitable location

- Place the set on a flat, hard and stable surface. Do not place the set on a carpet.
- Do not position the set on top of other equipment that might heat it up (e.g. receiver or amplifier).
- Do not put anything under the set (e.g. CDs, magazines).
- Install this system near the AC outlet and where the AC power plug can be reached easily.

### Space for ventilation

- Place the apparatus in a location with adequate ventilation to prevent internal heat build up. Allow at least 10 cm clearance from the rear and the top of the set and 5 cm from the left and right to prevent overheating.

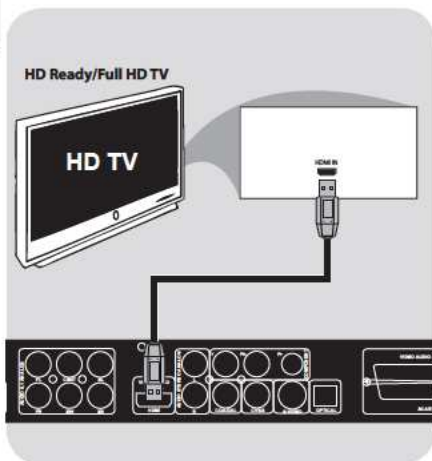


### Avoid high temperatures, moisture, water and dust

- Apparatus shall not be exposed to dripping or splashing.
- Do not place any sources of danger on the apparatus (e.g., liquid filled objects, lighted candles).

# Connections

## Connecting TV



### IMPORTANT!

– You only need to make one video connection from the following options, depending on the capabilities of your TV system.

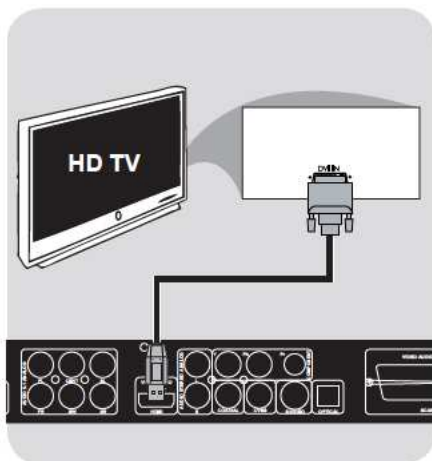
– Connect the DVD system directly to the TV.

### Using HDMI (High Definition Multimedia Interface) sockets

- HDMI transfers an uncompressed digital signal for the clearest sound/image quality.
- It has plug and play capability using only one cable for both audio/video output.
- ① Use a HDMI cable (not supplied) to connect the DVD player's HDMI to HDMI IN on the HDMI TV.
  - It may take a while for the DVD player and input device to communicate and initialise.

### IMPORTANT!

**When there is no picture on screen press repeatedly VIDEO key.**



### Using DVI (Digital Visual Interface) sockets

- If your TV has a DVI IN socket, you need a HDMI-DVI adapter cable to connect the HDMI socket on the DVD player.
- This HDMI-DVI cable has only video output capability.
- ① Use a HDMI-DVI cable (not supplied) to connect the DVD player's HDMI to DVI IN on the DVI TV.

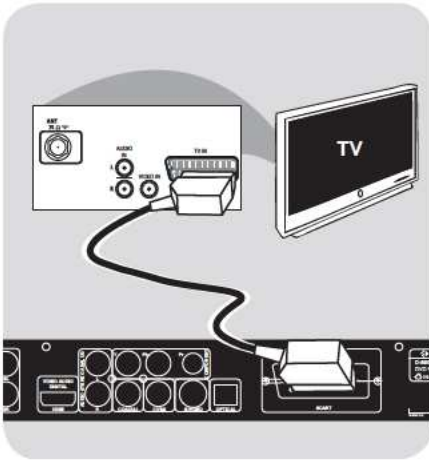
### IMPORTANT!

**When there is no picture on screen press repeatedly VIDEO key.**

### Helpful hint:

– To hear sound from the DVD player, use one of the audio connections.





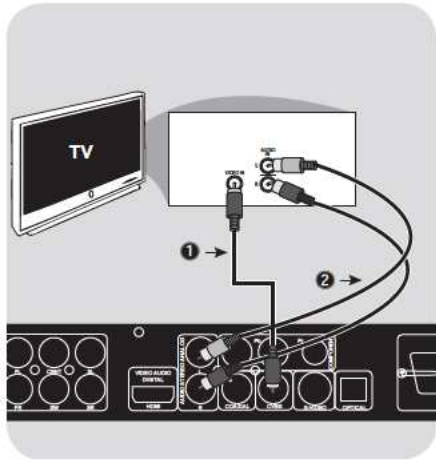
## Using SCART Jack

– A SCART connection will let you use features both Audio and Video on the DVD Player.

- Use the SCART cable (black) to connect the DVD Player's SCART jack(TV OUT) to the corresponding Scart input jacks on the TV.

### IMPORTANT!

– When there is no picture on screen press repeatedly B key.



## Using Composite Video Jacks (CVBS)

- 1 Use the composite video cable (yellow) to connect the DVD player's CVBS(VIDEO) jack to the video input jack(or the labled as A/V in , Video In, Composite or Baseband ) on the TV.

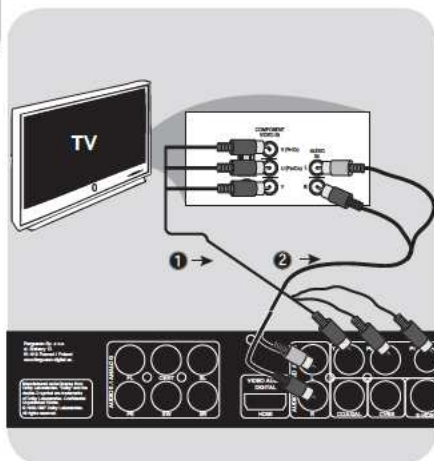
- 2 To hear the sound of this DVD Player through your TV, use the audio cables (white/red) to connect AUDIO OUT (L/R) jacks of the DVD player to the corresponding AUDIO IN jacks on the TV.

### IMPORTANT!

– When there is no picture on screen press repeatedly B key.

# Connections

ENGLISH



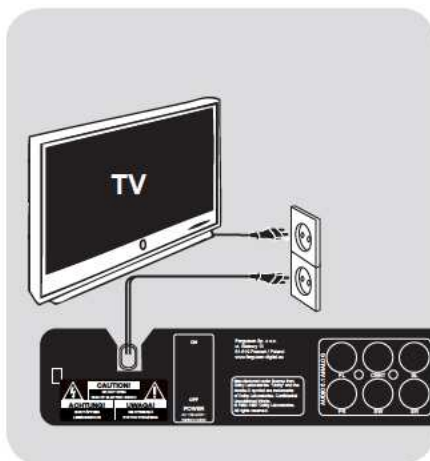
## Using Component Video Jacks (Y Pb Pr)

- 1 Use the component video cables (red/blue/green) to connect the DVD system's Y Pb Pr jacks to the Corresponding Component video input jacks (or labeled as Y Pb Pr) on the TV.
- 2 To hear sound of this DVD player through your TV, use the audio cables (white/red) to connect AUDIO OUT (L/R) jacks of the DVD player to the corresponding AUDIO IN jacks on the TV.

### IMPORTANT!

– When there is no picture on screen press repeatedly B key.

## Connecting the power cord

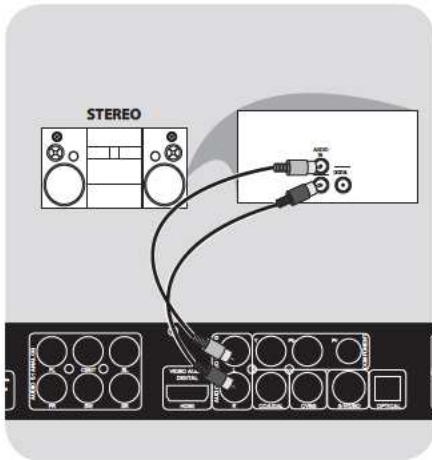


**After everything is connected properly, plug in the AC power cord to the power outlet.**

Never make or change any connections with the power switched on.

When no disc is loaded, press **POWER** ⏻ on the DVD player front panel. "NO DS" may appear on the display panel.

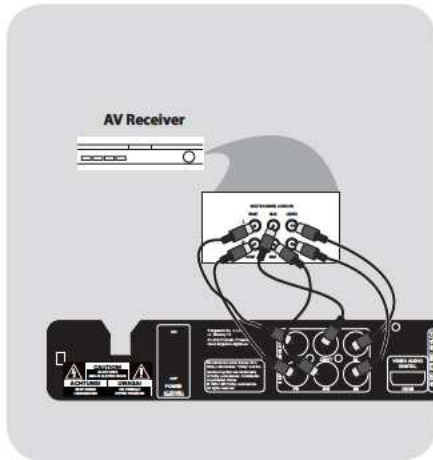
## Optional: Connecting to a Stereo System



Stereo system has Dolby Pro Logic or Right/Left Audio In Jack

- ❶ Select one of the video connections (CVBS VIDEO IN, SCART or COMPONENT VIDEO IN) depending on the options available on your TV.
- ❷ Use the audio cables (white/red) to connect **AUDIO OUT (L/R)** jacks of the DVD Player to the corresponding AUDIO IN jacks on the stereo system.

## Optional: Connecting to a Multi-channel Receiver



Receiver has multichannel analog input

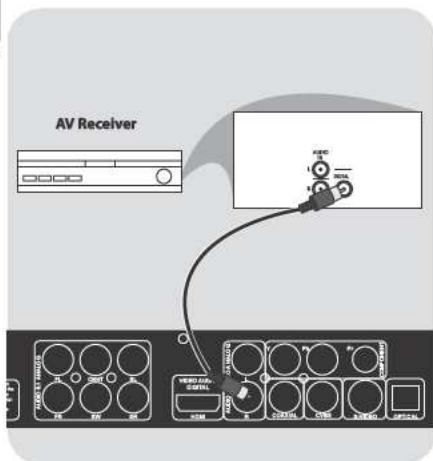
- ❶ Select one of the video connections (CVBS VIDEO, SCART or COMPONENT VIDEO) depending on the options available on your TV.
- ❷ Connect the Audio Out Left and Right jack for Front and Rear speakers to the corresponding input sockets on your Receiver.
- ❸ Connect the Audio Out for center speaker, surround left, surround right and subwoofer to the corresponding inputs on your Receiver (cable not supplied).
- ❹ Set the DVD Player's Analog Output (menu **SPEAKER SETUP > ANALOG OUTPUT**) to '5.1 CH' to enable playback of DVDs recorded in Multi-channel.

### Helpful Hint:

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

## Connections

### Optional: Connecting Digital AV Receiver



Receiver has a PCM, Dolby Digital, or MPEG2 decoder

- 1 Select one of the video connections (CVBS VIDEO IN, SCART or COMPONENT VIDEO IN) depending on the options available on your TV.
- 2 Connect the COAXIAL or OPTICAL jack of the DVD player to the corresponding Digital Audio In jack on your Receiver (*cable not supplied*).
- 3 Set the DVD Player's Digital Output to PCM-Only or RAW depending on the capabilities of your Receiver.

#### Helpful hint:

– If the audio format of the Digital Output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.

### Optional: Connecting a supported USB devices



#### Using USB port

You can only view the content of supported USB devices through this DVD system.

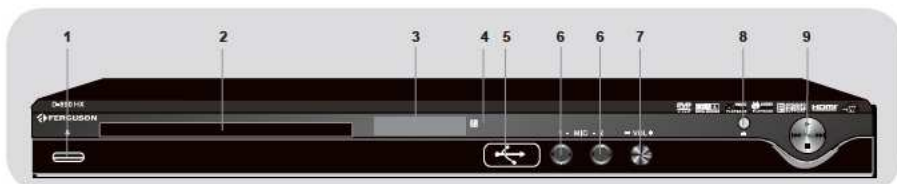
- 1 Connect the supported USB device directly to the USB port on the front panel (as shown on the above illustration).
- 2 Press **INPUT** button on the remote control in order to view the files stored in the supported USB device.
- 3 You have to stop playback before removing the supported USB device from the USB port.

#### Helpful hints:

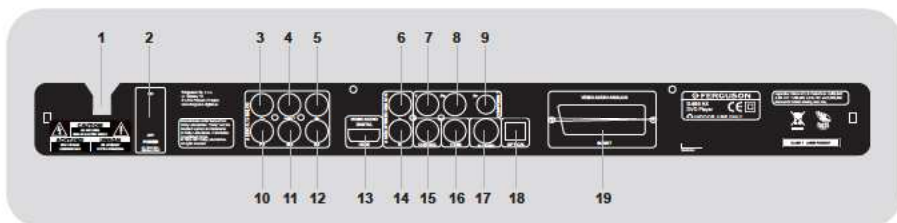
- The USB port supports playback of JPEG/audio files/video files.
- Not all portable audio/video players and digital cameras are supported.
- While connected to a card reader, only one card can be read at the same time.
- Only format FAT16, FAT32 partitions are supported by USB. NTFS is not supported
- External hard disk drives without separate power supply are not supported and may not work.
- If the USB device does not fit into the USB port, a USB extension cable is required.



## Front and Rear panels



- 1 **POWER** - Turns the player on
- 2 **Disc tray**
- 3 **Display** - Shows information about the current status of the DVD Player
- 4 **IR Sensor** - Point the remote control towards this sensor
- 5 **USB port** - Input the supported USB device
- 6 **MIC 1 2** - microphone 1 and 2
- 7 **VOL +/-** - Decrease/Increase the microphone volume
- 8 **EJECT** - Open / close the disc tray
- 9 **PLAY** - Starts playback  
**STOP** - Stops playback  
**PREV** - Skips to the previous chapter  
**NEXT** - Skips to the next chapter



- 1 **Main (AC Power Cord)** - connect to a standard AC outlet
- 2 **Power** - power switch
- 3 **FL Multichannel Audio Out** - connect to front left input of an amplifier
- 4 **C Multichannel Audio Out** - connect to center input of an amplifier
- 5 **SL Multichannel Audio Out** - connect to left surround input of an amplifier
- 6 **L Stereo Audio Out** - connect to audio left input of a stereo system
- 7 **Y (Component Video Out)** - connect to Y input of a TV
- 8 **Pb (Component Video Out)** - connect to Pb input of a TV
- 9 **Pr (Component Video Out)** - connect to Pr input of a TV
- 10 **FR Multichannel Audio Out** - connect to front right input of an amplifier
- 11 **SW Multichannel Audio Out** - connect to subwoofer input of an amplifier
- 12 **SR Multichannel Audio Out** - connect to right surround input of an amplifier
- 13 **HDMI** - Audio and video output socket for the high definition television set
- 14 **R Stereo Audio Out** - connect to audio right input of a stereo system
- 15 **COAXIAL (Digital Audio Out)** - connect to coaxial audio input of an amplifier
- 16 **CVBS (Video Out)** - connect to CVBS video input of a TV
- 17 **S-Video** - connect to S-Video compatible device
- 18 **OPTICAL (Digital Audio Out)** - connect to coaxial audio input of an amplifier
- 19 **SCART** - connect to SCART input of a TV

# Functional Overview

ENGLISH

## Remote Control Unit (RCU580)

Due to standardization fact most of Ferguson DVD players are using the same remote control unit RCU580. That is why NOT all keys are being used by this DVD model!!



**POWER** - Turns the player on or switches it to standby mode

**EJECT** - Open / close the disc tray

**A (Blu-ray)** - PBC menu

**B (Blu-ray)** - Switch analog video output modes

**C (Blu-ray)** - Selects different channels, when the disc tray is opened, press the button will enter interlace video output mode

**D (Blu-ray)** - enters +10 value in a menu

**Alphanumeric keypad 0-9** - Selects numbered items in a menu

**AUDIO** - Selects an audio language (DVD/VCD/avi) and time adjustment (avi)

**SUBTITLE** - Selects a DVD subtitle language

- Selects a XviD subtitle file / subtitle moving / font change / time adjustment

**SETUP** - Enters or exits system setup menu

**INFO** - Display information on the screen during playback

- Display information about audio and video files in filebrowser

- Display content of text files (like subtitles) in filebrowser

◀ ▶ ▲ ▼ - Cursor buttons for moving left, right, up, down.

- Fast forward ▶▶ / reverse search ◀◀

**OK** - Confirms an entry or selection

**VOL + -** - Increase / decrease the volume

**NEXT ▶▶ / PREV ◀◀** - Skips to the next/ previous title/chapter/track

**MUTE** - Turn on/off sound

**STEP** - Step play

**SLOW** - Slow the normal play motion

**STOP ■** - Stops playback

**PLAY/PAUSE ▶||** - Starts or pauses playback

**MENU** - Enter or exits the disc menu

**TITLE** - To go back to show title menu

**RETURN** - Return to disc menu playback

**SEARCH** - Start playback from a designated point

**INPUT** - Access the contents of disc or the connected supported USB device

**OPT** - Switch the camera angle during DVD playback

**ZOOM** - Enlarge a picture on the TV screen

**BROWSE** - Browse VCD/DVD/JPEG tracks in small-picture screen

**VIDEO** - Select video output mode (HDMI resolution)

**EQ** - Select preferred sound mode

**REPEAT** - Selects various repeat modes

**A-B** - Not used in this model



### Step 1: Inserting batteries into the Remote Control

- 1 Open the battery compartment.
- 2 Insert two batteries type R03 or AAA, following the indications(+ -) inside the compartment.
- 3 Close the cover.

### Using the Remote Control to operate the Player

- 1 Aim the Remote Control directly at the remote sensor (IR) on the front panel.
- 2 Do not put any objects between the Remote Control and DVD Player while operating the DVD Player.




#### CAUTION!

- Remove batteries if they are exhausted or if the Remote Control is not being used for a long time.
- Do not use old and new or different types of batteries in combination.
- Batteries contain chemical substances, so they should be disposed properly.

### Step 2: Setting up the TV

#### IMPORTANT!

**Make sure you have completed all the necessary connections.**

- 1 Press **POWER**  on the DVD player to turn it on.
- 2 Turn on the TV and set it to the correct video-in channel. You should see the DVD background screen.
  - Usually these channel are between the lowest and highest channels and may be called FRONT, A/V IN, VIDEO. See your TV's manual for more details.
  - Or, you may go to channel 1 on your TV, then press the Channel down button repeatedly until you see the Video In channel.
  - Or, the TV Remote Control may have a button or switch that chooses different video modes.
- 3 If you are using external equipment, (eg. audio system or receiver), turn it on and select the appropriate input source for the DVD player output. Refer to the equipment owner's manual for detail.

# Getting Started

## Selecting the colour system that corresponds to your TV

This DVD Player is compatible with both NTSC and PAL. In order for a DVD disc to play on this player, the colour system of the Disc, the TV and the DVD player should match.



- 1 Press **SETUP**.
- 2 Press **▶** to select {Video Setup Page}
- 3 Press **▲▼** to highlight {TV Type}, then press **▶**.
- 4 Press **▲▼** to highlight one of the options below:

**PAL** -Select this if the connected TV has the PAL colour system. It will change the video signal of an NTSC disc and output it to PAL format.

**NTSC** -Select this if the connected TV is NTSC colour system. It will change the video signal of a PAL disc and output in NTSC format.

**Multi** -Select this if the connected TV is compatible with both NTSC and PAL (multi-system). The output format will be in accordance with the video signal of the disc.

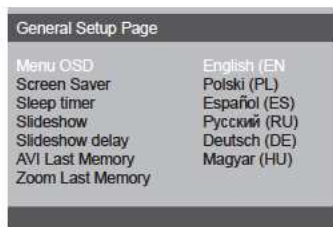
- 5 Select a setting and press **OK**.  
→ Follow the instructions show on the TV to confi rm the selection.

## Step 3: Setting language preference

The language options are different depending on your country or region.It may not correspond to the illustrations shown on the user manual.

## Setting the OSD language

The On-screen language for the system menu will remain as you set it, regardless of various disc languages



- 1 Press **SETUP**.
- 2 Press **▶** to select {General Setup Page}.
- 3 Press **▲▼** to highlight {Menu OSD}, then press **▶**.
- 4 Press **▲▼** to select a language and press **OK**.

### Setting the Audio, Subtitle and Disc menu language

You can choose your own preferred language or soundtrack from audio, subtitles and DVD menu languages. If the language selected is not available on the disc, the disc's default language will be used instead.



- 1 Press **STOP** twice, then press **SETUP**.
- 2 Press **▶** to select {Preference Page}.
- 3 Press **▲ ▼** to highlight one of the options below at a time, then press **▶**.
  - 'DVD-Video Audio' (disc's soundtrack)
  - 'DVD-Video Subtitle' (disc's subtitles)
  - 'DVD-Video Disc Menu' (disc's menu)
- 4 Press **▲ ▼** to select a language and press **OK**.
- 5 Repeat steps 3~4 for other language settings.

## Disc operation

### IMPORTANT!

– If the inhibit icon (ø) appears on the TV screen when a button is pressed, it means the function is not available on the current disc or at the current time.

### Upscaling

Supported Upscaling on DVD and Standard-Formats:




- ① 720p HDTV Progressive Scan - 24/25/30Hz, 720 Lines per Frame, 1280x720 Pixel
- ② 1080i HDTV Interlaced - 50/60Hz, 520+520 Lines per Frame, 1920x1080 Pixel
- ③ 1080p HDTV Progressive Scan - 24Hz, 1080 Lines per Frame, 1920x1080 Pixel

### Playable Discs

Your DVD Player will play:

- Digital Video Discs (DVDs)
- Video CDs (VCDs)
- Super Video CDs (SVCDs)
- Digital Video Discs + Recordable[Rewritable] (DVD+R[W])
- Compact Discs (CDs)
- Picture (Kodak, JPEG) files on CD-R(W).
  - JPEG/ISO 9660 format
- XviD disc on CD-R[W]/DVD+R[W]:
  - Q-pel accurate motion compensation
  - Global Motion Compensation (GMC) playback (except 3 warp-point GMC)

### Playing discs

- ① Connect the power cords of the DVD player and TV (and any option stereo or AV receiver) to a power outlet.
- ② Turn on the TV power and set to the correct Video in channel.
- ③ Press **POWER**  to turn on the DVD player.
  - The DVD background screen appears on the TV.
- ④ Press **OPEN/CLOSE** on the front of the DVD player or **EJECT**  button on the remote control.
- ⑤ Place a disc into the disc tray with the label facing up, then press **EJECT** .
  - For double-sided discs, load the side you want to play facing up.
- ⑥ Playback will start automatically. If not press **PLAY/PAUSE**.
  - If a disc menu appears on the TV see "Using the Disc Menu".
  - If the disc is locked by parental control, you must enter your six-digit password.

## Basic playback controls

Unless otherwise stated, all operations described are based on Remote Control use.

### Pausing playback

- ① During playback, press **PLAY/PAUSE** to pause playback and display a still picture.  
→ Sound will be muted.
- ② To resume normal playback, press **PLAY/PAUSE** again.

### Selecting track/chapter

Press **PREV / NEXT** to go to the previous or next track/chapter

### Stopping playback

Press **STOP ■**

## Selecting various repeat/shuffle functions

### Repeat play mode

The repeat play options vary depending on the disc type.

- ① While playing a disc, press **REPEAT** continuously to choose a repeat options.
- ② To cancel repeat playback, press **STOP ■**.

## Operations for video playback (DVD/VCD/SVCD)

### Using the Disc Menu

Depending on the disc, a menu may appear on the TV screen once you load in the disc.

#### To select a playback feature or item

- Use **◀▶▲▼** keys or **numeric keypad (0-9)** on the remote, then press **OK** to start playback.

#### To access or remove the menu

- Press **MENU** on the remote.

### Zooming In

**This function allows you to enlarge the picture on the TV screen and to pan through the enlarged picture**

- ① During playback, press **ZOOM** repeatedly to display the picture with different scales.  
→ Use **◀▶▲▼** keys to pan through the enlarged picture.  
→ Playback will continue.
- ② Press **ZOOM** repeatedly to return to the original size.



## Disc operation

### Slow Motion

- 1 Press ◀▶ during playback to select the required speed: 1/2, 1/4, 1/8 or 1/16 (forward {DVD/SVCD/VCD} or backward {DVD}).  
→ Sound will be muted.
- 2 To return to normal speed, press **PLAY/PAUSE**.

### Forward/Reverse Searching

- 1 Press ◀▶ during playback to select the required speed: 2X, 4X, 8X, 16X, 32X (backward or forward)  
→ Sound will be muted(DVD/VCD/XviD) or intermittent (audio files/CD).
- 2 To return to normal speed, press **PLAY/PAUSE** or **OK**.

### Resuming playback from the last stopped point

Resume playback of the last 5 discs is possible, even if the disc was ejected (open) or standby. Auto resume is active for DVD, VCD, SVCD, CD types of discs.

- Load one of the last 5 discs.  
→ 'Play from start, press [PREV]' appears during playback for first 10 seconds.
- During the message appears on the TV screen, press **PREV** to start playback from the beginning.  
→ Playback restarts from the first title (DVD) or the beginning of the title/track (VCD/CDDA/SVCD).
- To cancel resume mode. In stop mode, press **STOP** again.

### OSD (On -Screen Display) (DVD/ VCD/SVCD/XviD)

#### Using the OSD menu

OSD menu shows the disc playback information (for example, title or chapter number, elapsed playing time, audio/ subtitle language), a number of operations can be done without interrupting disc playback.

- During playback, press **SEARCH**  
→ A list of available disc information appears on the TV screen.

#### Title/Chapter/Track selection

- 1 Press ▲▼ to highlight {Title} / {Chapter} or {Track}, then press ▶ to access.
- 2 Use the **numeric keypad (0-9)** to enter a valid number (e.g. 04/05).
- 3 Press **OK** to confirm.  
→ The playback skips to the selected title/ chapter/track.

#### Audio/Subtitle

- 1 Press ▲▼ to highlight {Audio} or {Subtitle}, then press ▶ to access.  
→ Audio or Subtitle menu appears on the TV.
- 2 Press ▲▼ to select one language, then press **OK** to confirm.  
→ Current audio or subtitle language will be changed to the selected language.



## Playback info

This OSD menu shows the disc playback information (for example, title or chapter number, elapsed playing time), without interrupting disc playback.

- During playback, press **INFO**
  - Info about current playback progress and other information appears on the TV screen.

## Angle Function

- ① Press **▲▼** to highlight {Angle}, then press **▶** to access.
- ② Use the **numeric keypad (0-9)** to key in a valid number.
- ③ Press **OK** to confirm.
  - Playback will go to the selected angle.

## Preview Function

The browse function allows you to reduce the picture of 6 tracks enough to display in a full screen.

- ① Press **▲▼** to highlight {Preview}, then press **▶** to access.
  - The preview menu appears on the TV screen.
- ② Press **▲▼** to select the PREVIEW type, then press **OK**.
  - The picture of each segment will appear on the screen.
- ③ Press **▲▼◀▶** to select a track or input your selected track number using the **numeric keypad (0-9)**, then press **OK**.
  - Playback will start automatically on the selected track.

## Special DVD Features

## Playing a Title

- ① Press **MENU**.
  - The disc title menu appears on the TV screen.
- ② Use **▲▼◀▶** keys or **numeric keypad (0-9)** to select a play option.
- ③ Press **OK** key to confirm

## Changing the Audio Language

## For DVD

- Press **AUDIO** repeatedly to select different audio language.

## For VCD

- Press **AUDIO** to select the available audio channels provided by the disc (**Mono Left, Mono Right, MIX-Mono, Stereo**).

## Subtitles

- Press **SUBTITLE** repeatedly to select different subtitle languages.

## Disc operation

### Special .avi (XviD) Features

#### MediaInfo function

- 1 Press **INFO** button in File Browser on .avi or audio file to view detailed file information.



- 2 Press **INFO** key to exit

#### Subtitles loading

- 1 Choose subtitle file from File Browser by pressing **OK** on that file.
- 2 Start .avi playback.
  - or
  - 1 Start .avi playback.
- 2 Choose subtitle by pressing **SUBTITLE** button during playback.
  - To view content of subtitle file mark this file in File Browser and press **INFO** button. Use **▲▼** keys to change subtitle position. Press **OK** key to exit.

#### Subtitles adjustment and time shift

- 1 During .avi playback, press **SUBTITLE**. Use **▲▼◀▶** keys to change subtitle file



- 2 Press **SUBTITLE** again. Use **▲▼◀▶** keys to change font size.



- 3 Press **SUBTITLE** again. Use **▲▼◀▶** keys to change subtitle position.



- 4 Press **SUBTITLE** again. Use **◀▶** keys to adjust subtitle time shift.



- 5 Press **OK** key to confirm

#### Audio track change and time shift

- 1 During .avi playback, press **AUDIO**. Use **▲▼◀▶** keys to change audio track
- 2 Press **AUDIO** again. Use **◀▶** keys to adjust subtitle time shift.
- 3 Press **OK** key to confirm

### Resuming playback from the last stopped point

Resume playback of the last 5 movies is possible, even if the disc was ejected (open) or standby. Auto resume is active for DVD, CD types of discs.

### Special VCD&SVCD Features

#### Playback Control (PBC)

#### For VCD with Playback Control (PBC) feature (version 2.0 only)

- Press **MENU** to toggle between 'PBC ON' and 'PBC OFF':
  - If you select 'PBC ON', the disc menu (if available ) will appear on the TV.
  - If you select 'PBC OFF', use the **PREV/NEXT** or the **numeric keypad (0-9)** to select a play option.
- During playback, pressing **TITLE** will return to the menu screen (if PBC is on)

#### If you want to skip the index menu and playback directly from the beginning

- Press **MENU** key on the remote control to switch to PBC off

### Playing a XviD disc

**This DVD player supports the XviD movie playback that you download from your computer onto a CD-R/RW or DVD±RW**

- ① Load a XviD disc.
  - Playbak will start automatically. If not press **PLAY**.
- ② Pressing **SUBTITLE** on the remote control will turn on or off the subtitles.
- If multilingual subtitles are embedded on the XviD disc , pressing **SUBTITLE** will change the subtitle language during playback.

#### Helpful Hints:

– Subtitle files with the following filename extensions (.srt, .smi, .sub, .ssa, .txt) are supported and appear on the file navigation menu.

## Disc operation

### Playing pictures or audio files from the supported USB device

This DVD system is able to access and view the data in the supported USB device.

- 1 If a disc is playing, inserting a supported USB device into the USB port on the front panel.
  - A dialog will be displayed on the left bottom corner.
  - When playing an ISO disc, the dialog will not be displayed.
- 2 Press **INPUT** on the remote control to access the data in the drive.
  - A file menu that contains all supported files will be displayed on the TV screen.
- Use **▲▼** to navigate within the menu and select the device you want to access, then press **OK**.
- Press **INPUT** on the remote control to exit the file menu, and return to DVD mode.
- Press **INPUT** to enter DVD mode, before removing the supported USB device from the slot.

#### Helpful Hints:

- A total of 300 folders and maximum of 648 titles can be supported.

### Compatibility of USB device

- The USB port does not support the connection of other USB device except the supported USB device.
- The USB port can support the playback of JPEG/music files/AVI files.
- It is not possible to record from the data from USB ports to this DVD system.
- Copy protected contents are not playable.

#### Helpful Hints:

- Supported USB device include:  
{Thumb drive or flash drive, Card readers for different kinds of cards, Portable hard disk players}.

### Playing JPEG/Picture CD

This DVD system can playback music files, JPEG, VCD & SVCD files on a personally recorded CD-R/RW disc, commercial CD or USB device.

### General Operation

- 1 Load a disc or USB device.
  - The disc reading time may exceed 30 seconds due to the complexity of the directory/file configuration.
  - The data disc menu appears on the TV screen



- 2 Press **▲▼** to select the folder and press **OK** to open the folder.
- 3 Press **▲▼** to select a track/files.
- 4 Press **PREV/NEXT** to go to previous/next page.
- 5 Press **OK** to confirm.

### Playback selection

During playback, you can;

- Press **PREV/NEXT** to select the previous/next track/file in the current folder.
- Press **PLAY/PAUSE** repeatedly to pause/resume playback.

## Zoom picture (JPEG)

- During playback, press **ZOOM** repeatedly to display the picture with different scales.
- Use **▲▼◀▶** to view the zoomed picture

## Rotating Pictures

- During playback, press **▲▼◀▶** to rotate the picture on the TV screen.
  - ▲: flip the picture vertically by 180°
  - ▼: flip the picture horizontally by 180°
  - ◀: flip the picture anti-clockwise by 90°
  - ▶: flip the picture clockwise by 90°

### Helpful Hints:

- It may not be possible to play certain JPEG disc due to the configuration and characteristics of the disc or condition of the recording.
- For multi-session discs with different formats, only the first session will be available.

## Preview Function (JPEG)

This function shows the content of the current folder or the whole disc.

- 1 Press **BROWSE** during playback.
  - 12 thumbnail pictures will appear on the TV screen.
- 2 Press **PREV/NEXT** to display the other pictures on the previous/next page.
- 3 Press **▲▼◀▶** on highlight one of the picture and press **OK** to start playback.
- 4 Press **MENU** to return to Picture CD menu.

## Playing music files and JPEG picture simultaneously

- 1 Load a disc that contains music and picture.
  - Load a disc that contains music and picture.
- 2 Select an music track.
- 3 During music playback, select a picture from the TV screen and press **OK**.
  - The picture files will be played back one after another until end of the folder.
- 4 To quit simultaneous playback, press **STOP**.

### Helpful Hint:

- Some files on Kodak or JPEG disc may be distorted during playback due to the configuration and characteristics of the disc.
- During simultaneous playback, fast forward / reverse or slow forward is not available.

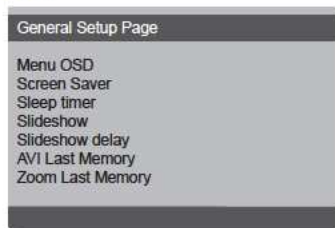


## DVD Setup Menu Options

This DVD Player setup is carried out via the TV, enabling you to customise the DVD player to suit your particular requirement.

### General Setup menu

- 1 In disc mode, press SETUP.
- 2 Press ◀▶ to select 'General Setup Page' icon.



### Menu OSD

This menu contains various language options for display language on the screen.

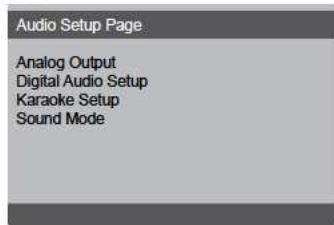
### Sleep timer

Sleep function allows you to turn off the DVD player automatically after a preset time.

- 1 In 'General Setup Page', press ▲▼ to highlight {Sleep}, then press ▶.
- 2 Press ▲▼ to select a setting, then press **OK** to confirm your selection.

### Audio Setup menu

- 1 In disc mode, press SETUP.
- 2 Press ◀▶ to select 'Audio Setup Page' icon.



### Analog Output

This options allows you to set the stereo analog output of your DVD Player.

- 1 In 'AUDIO SETUP PAGE', press ▲▼ keys to highlight {ANALOG OUTPUT}, then press ▶.

**{Stereo}** - Select this when output delivers sound from only the two front speakers.

**{LT/RT}** - Select this option if your DVD player is connected to a Dolby Pro Logic decoder. Surround sound will be like in a movie theatre only if movie disc was recorded in the Dolby Pro Logic format.

**{5.1 CH}** - Select this option to enable multi-channel output.

- 2 Use ▲▼ keys to select a setting and press **OK** to confirm.



## Digital Audio Setup

The options included in Digital Audio Setup are: { Digital Output } and { LPCM Output }.

- 1 In 'Audio Setup Page', use ▲ ▼ keys to highlight { Digital Audio Setup }, then press ►.
- 2 Use ▲ ▼ keys to select an option.
- 3 Press ► to enter into the submenu.
- 4 Press ▲ ▼ keys to select a setting.

### ● { Digital Output }

Select this if you connect to a multichannel decoder/receiver.

- { RAW } - Select this if the connected device has a built-in multichannel decoder that supports one of the multichannel audio format (Dolby Digital, MPEG-2).
- { PCM Only } - Select this if the connected device is not capable of decoding multichannel audio. The DVD player will convert the Dolby Digital and MPEG-2 multichannel signals to PCM (Pulse Code Modulation).
- { Off } - To deactivate the digital audio output. For example, if you use the AUDIO OUT sockets to connect to a TV or stereo system.

### Helpful Hint:

- If { Digital Output } is set to { All }, all audio settings except MUTE are invalid.

### ● { LPCM Output }

Select this if you connect to a PCM compatible receiver. Discs are recorded at a certain sampling rate with the higher sampling rate, the better sound quality.

- { 48K } - Select this if the playback disc is recorded at a sampling rate of 48kHz.
- { 96K } - Select this if the playback disc is recorded at a sampling rate of 96kHz.
- { 192K }

## HDMI Audio Setup

This function allows you to set the digital audio to output via HDMI cable.

- 1 In 'Audio Setup Page', press ▲ ▼ to select {HDMI Audio Setup}, then press ►.

{AUTO} - To enable the automatic HDMI digital audio to output.

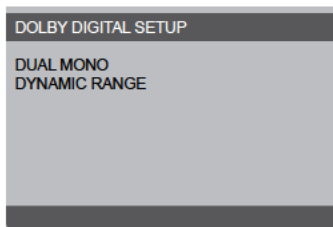
{PCM} - To disable the automatic HDMI digital audio to output. Output is now plain stereo PCM.

- 2 Use ▲ ▼ keys to select a setting and press **OK** to confirm.

# DVD Setup Menu Options

## Dolby Digital Setup Menu

- 1 Press **SETUP**.
- 2 Press ◀▶ to select DOLBY DIGITAL SETUP icon.



### DYNAMIC RANGE

Choose this setting to adjust the line out ratio. If adjusting to FULL, the audio signal peak value will be the minimum; while adjusting to OFF, maximum.

#### Helpful Hints:

This option will be active only when the ANALOG OUTPUT option is set to 5.1 CH.

## Video Setup Menu

- 1 In disc mode, Press **SETUP**.
- 2 Press ◀▶ to select 'Video Setup Page' icon.



### TV Type

This menu contains the options for selecting the colour system that matches the connected TV.

### Setting the TV Display

The picture shape can be adjusted to fit your TV and the format must be available on the playback disc. Otherwise, the TV display will not affect the picture during playback.

- 1 In 'Video Setup Page', use ▲ ▼ keys to highlight { TV Display }, then press ▶.
- 2 Use ▲ ▼ keys to select a setting:
  - { **4:3 Panscan** }
  - Select this for a full-height picture with the sides trimmed.
  - { **4:3 Letterbox** }
  - Select this for a 'wide-screen' display with black bars on the top and bottom.
  - { **16:9** }
  - Select this for wide-screen TV (frame ratio 16:9).
- 3 Press **OK** to confirm.

## Switching the YUV/RGB

This setting allows you to toggle the output of the video signal between RGB (on scart) and Component(YUV).

- 1 In 'Video Setup Page', use ▲ ▼ keys to highlight {COMPONENT}, then press ►.

**YUV** - Select this for Y Pb Pr connection

**RGB** - Select this for SCART connection

**S-Video** - Select this for S-Video (S-VHS) connection

- 2 Use ▲ ▼ keys to press **OK** to confirm your selection.

### Warning:

When the player is set to Y Pb Pr (YUV), some TV may not properly synchronise with player on the SCART connector.

## HDMI Setup

The options included in HDMI Setup is : 'Resolution'.

- 1 In {VIDEO SETUP PAGE}, press ▲ ▼ to highlight{HDMI Setup}, then press ►.
- 2 Press ▲ ▼ to highlight an option.
- 3 Enter its submenu by pressing ► .
- 4 Press ▲ ▼ to select a setting, then press **OK** to confirm your selection.

### Resolution

You can select the resolution of the picture according to your preference and the connected HDMI TV.

**480p**: Progressive output in 480 lines for NTSC TV.

**576p**: Progressive output in 576 lines for PAL TV.

**720p**: Progressive output upscale to 720 lines.

**1080i**: Interlaced output upscale to 1080 lines.

**1080p**: Progressive output upscale to 1080 lines.

**Auto**: Output automatically based on your display's supported resolution.

### Helpful Hint:

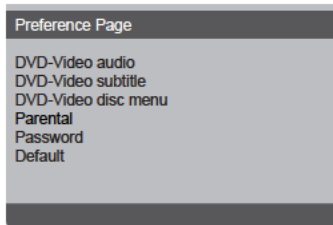
- If not display appears on the TV screen due to unsupported resolution, reconnect any available interlace video output to your display and re-adjust the resolution settings to 480p/576p.

- Select AUTO to automatically display the best resolutions settings.

# DVD Setup Menu Options

## Preference Page

- 1 Press **STOP** button twice to stop playback (if any), then press **SETUP**.
- 2 Press **◀▶** to select 'Preference Page' icon.



## DVD-Video Audio, Subtitle, Disc Menu

These menus contain various language options for audio, subtitle and disc menu which may be recorded on the DVD.

## Restricting playback by Parental Control

Some DVDs may have a parental level assigned to the complete disc or to certain scenes on the disc. This feature lets you set a playback limitation level. The rating levels are from 1 to 8 and are country dependent. You can prohibit the playing of certain discs that are not suitable for your children or have certain discs played with alternative scenes.

- 1 In 'PREFERENCE PAGE', press **▲▼** to highlight {PARENTAL}, then press **▶**.
- 2 Press **▲▼** to highlight a rating level for the disc inserted and press **OK**  
→ To disable Rating level and have all Discs play, select {8. Audlt}
- 3 Use the **numeric keypad (0-9)** to enter the six-digit password  
→ DVDs that are rated above the level you selected will not play unless you enter your six-digit password.

## Helpful Hints:

- VCD, SVCD, CD have not level indication, so parental control function has no effect on these type of discs. This applies to most illegal DVD discs.
- Some DVDs are not encoded with a rating though the movie rating may be printed on the Disc cover, The rating level feature does not work for such Discs.

## Changing the Password

The same password is used for both Rating setting and Disk Lock, Enter your six-digit password when prompted on the screen, default password is 0000.

- 1 In 'PREFERENCE PAGE', press **▲▼** to highlight{PASSWORD}, then press **▶** to select {CHANGE}.
- 2 Press **OK** and the menu appears.
- 3 Use the **numeric keypad (0-9)** to enter your old six-digit password.  
→ When doing this for the first time, Key in '0000'.  
→ If you forget your old six-digit password, Key in '0000'.
- 4 Enter the new six-digit password.
- 5 Enter the new six-digit password a second time to confirm.  
→ The new six-digit password will now take effect.
- 6 Press **OK** to confirm.



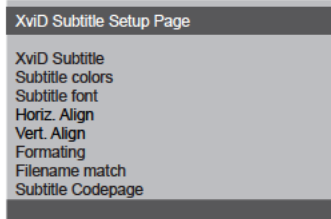
## Restoring to original settings

Setting the { Default } function will reset all options and your personal settings to the factory defaults, except your password for Parental and Disc Lock.

- 1 In 'Preference Page', use ▲ ▼ keys to highlight { Default }, then press ► to select { Reset }.
- 2 Press **OK** to confirm.  
→ All settings will now reset to factory defaults.

## XviD Subtitle Setup Page

- 1 Press **STOP** button twice to stop playback (if any), then press **SETUP**.
- 2 Press ◀ ▶ to select 'XviD Subtitle Setup Page' icon.



## Setting the XviD subtitle font

You can set the font type that supports the recorded XviD subtitle.

- 1 In 'XviD Subtitle Setup Page', use ▲ ▼ keys to highlight {Subtitle Codepage}, then press ►.  
**CP1252 - Standard:** Albanian, Danish, Dutch, English, Finnish, French, Gaelic, German, Italian, Kurdish (Latin), Norwegian, Portuguese, Spanish, Swedish and Turkish.  
**CP1251 - Cyrillic:** Bulgarian, Belorussian, English, Macedonian, Moldavian, Russian, Serbian and Ukrainian.  
**CP1250 - Central European:** Albanian, Croat, Czech, Dutch, English, German, Hungarian, Irish, Polish, Romanian, Slovak, Slovene and Sorbian.  
**UTF-8; ISO-8859-1; ISO-8859-2; ISO-8859-5; ISO-8859-15:** Select proper option if you have subtitles in this code page format
- 2 Use ▲ ▼ keys to select a setting and press **OK** to confirm.

## Troubleshooting

### WARNING

Under no circumstances should you try to repair the system yourself, as this will invalidate the warranty. Do not open the system as there is a risk of electric shock.

If a fault occurs, first check the points listed below before taking the system for repair. If you are unable to remedy a problem by following these hints, consult your dealer for help.

Problem	Solution
No power	<ul style="list-style-type: none"> <li>– Check if the AC power cord is properly connected.</li> <li>– Press the STANDBY ON on the front of the DVD system to turn on the power.</li> </ul>
No picture	<ul style="list-style-type: none"> <li>– Refer to your TV's manual for correct Video In channel selection. Change the TV channel until you see the DVD screen.</li> <li>– Check if the TV is switched on.</li> </ul>
Distorted picture	<ul style="list-style-type: none"> <li>– Sometimes a small amount of picture distortion may appear depending on the disc being played back. This is not a malfunction.</li> </ul>
Completely distorted picture or black/white picture with DVD	<ul style="list-style-type: none"> <li>– Connect DVD Player directly to the TV. black/white picture with DVD</li> <li>– Make sure the disc is compatible with the DVD/Player.</li> <li>– Ensure that the DVD Player's TV Type is set to match that of the Disc and your TV.</li> </ul>
No sound or distorted sound	<ul style="list-style-type: none"> <li>– Adjust the volume.</li> <li>– Check that the speakers are connected correctly.</li> </ul>
No audio at digital output	<ul style="list-style-type: none"> <li>– Check the digital connections.</li> <li>– Check if your receiver can decode MPEG-2 and if not, please make sure the digital output is set to PCM.</li> <li>– Check if the audio format of the selected audio language matches your receiver capabilities.</li> </ul>
No sound and picture	<ul style="list-style-type: none"> <li>– Check that the RGB/SCART cable is connected to the correct device (See Connecting TV).</li> </ul>
Disc can't be played	<ul style="list-style-type: none"> <li>– The DVD+R/CD-R must be finalised.</li> <li>– Ensure the disc label is facing up.</li> <li>– Check if the disc is defective by trying another disc.</li> <li>– Region code incorrect.</li> </ul>
Picture freezes momentarily during playback	<ul style="list-style-type: none"> <li>– Check the disc for fingerprints/scratches and clean with a soft cloth wiping from centre to edge.</li> </ul>
No return to start-up screen when disc is removed	<ul style="list-style-type: none"> <li>– Reset the unit by switching the player off, then on again.</li> </ul>
The player does not respond to the Remote Control	<ul style="list-style-type: none"> <li>– Aim the Remote Control directly at the sensor on the front of the player.</li> <li>– Reduce the distance to the player.</li> <li>– Replace the batteries in the Remote Control.</li> <li>– Re-insert the batteries with their polarities (+/- signs) as indicated.</li> </ul>
Buttons do not work	<ul style="list-style-type: none"> <li>– To completely reset the player, unplug the AC cord from the AC outlet for 5-10 seconds.</li> </ul>



<b>Player does not respond to some operating commands during playback.</b>	<ul style="list-style-type: none"> <li>– Operations may not be permitted by the disc. Refer to the instructions of the disc jacket.</li> </ul>
<b>DVD Player cannot read CDs/DVDs</b>	<ul style="list-style-type: none"> <li>– Use a commonly available cleaning CD/DVD to clean the lens before sending the DVD Player for repair.</li> </ul>
<b>Menu items cannot be selected</b>	<ul style="list-style-type: none"> <li>– Press STOP twice before selecting System Menu.</li> <li>– Depending on the disc availability, some menu items cannot be selected.</li> </ul>
<b>Unable to select Progressive Scan on/off</b>	<ul style="list-style-type: none"> <li>– Check that the output of the video signal is switch to 'YUV'.</li> </ul>
<b>No sound during XviD movies playback</b>	<ul style="list-style-type: none"> <li>– The audio codec may not be supported by the DVD player.</li> </ul>
<b>An XviD movies does not repeat</b>	<ul style="list-style-type: none"> <li>– Check that file size of the movies does not exceed the file size of the CD disc during burning.</li> </ul>
<b>The contents of the USB flash drive cannot be read</b>	<ul style="list-style-type: none"> <li>– The USB flash drive format is not compatible with the player.</li> <li>– Drive is formatted with a different file system. (eg. NTFS)</li> </ul>
<b>Slow operations of the USB flash drive</b>	<ul style="list-style-type: none"> <li>– Big file size or high resolution USB flash drive takes longer time to read and display on the TV screen.</li> </ul>
<b>No sound is output from the HDMI out</b>	<ul style="list-style-type: none"> <li>– Check the connection between the TV and the HDMI jack of DVD player.</li> <li>– See if the TV supports this 480p/576p/720p/1080i DVD player.</li> <li>– Check your TV system setup correctly.</li> </ul>

# Specifications

## TV STANDARD (PAL/50Hz) (NTSC/60Hz)

Number of lines	625	525
Playback	Multistandard	(PAL/NTSC)

## VIDEO PERFORMANCE

Video DAC	12bit 108MHz
YPbPr	0.7Vpp -75Ohm
Video output	1Vpp -75Ohm
RGB (SCART)	0.7Vpp-75Ohm

## VIDEO FORMAT

Digital Compression	MPEG-2 for DVD, SVCD MPEG-1 for VCD MPEG-4 XviD
DVD	50Hz(PAL) 60Hz(NTSC)
Horiz.resolution	720 pixels 720 pixels
Vertical resolution	576 lines 480 lines
VCD	50Hz 60Hz
Horiz.resolution	352 pixels 352 pixels
Vertical resolution	288 lines 240 lines

## AUDIO FORMAT

Digital	MPEG/AC-3/ PCM	compressed Digital 16,20,24 bits fs, 44.1,48, 96kHz kbps & variable bit rate fs 32,44.1, 48 kHz
Analog Sound Stereo		
Dolby Surround compatible downmix from Dolby		
Digital multi-channel sound		

## AUDIO PERFORMANCE

DA Converter	24bit, 192kHz
DVD	fs 96kHz 4Hz-44kHz fs 48kHz 4Hz-22kHz
SVCD	fs 48kHz 4Hz-22kHz fs 44.1kHz 4Hz-20kHz
CD/VCD	fs 44.1kHz 4Hz-20kHz
Signal-Noise (1kHz)	>100dB
Dynamic range (1kHz)	>90dB
Crosstalk (1kHz)	>100dB
Distortion/noise (1kHz)	>85dB

## CONNECTIONS

Scart Output	Euroconnector
YPbPr Output	Cinch 3x
CVBS Output	Cinch (yellow)
HDMI Output	HDMI
Audio Output (L+R)	2 Cinch (white/red)
Digital Output	1 coaxial IEC60958 for CDDA/LPCM IEC61937 for MPEG-1/2 Dolby Digital

## CABINET

Dimensions (w x h x d)	430 x 34 x 204 mm
Weight	Approximately 2.1kg

## POWER CONSUMPTION

Power Supply Rating	110-240V; 50/60Hz
Power consumption	<12W
Power consumption in Standby mode	<1W

*Specifications subject to change without prior notice*

**Analogue:** Sound that has not been turned into numbers. Analogue sound varies, while digital sound has specific numerical values. These jacks send audio through two channels, the left and right.

**Aspect ratio:** The ratio of vertical and horizontal sizes of a displayed image. The horizontal vs. vertical ratio of conventional TVs is 4:3, and that of widescreens is 16:9.

**AUDIO OUT Jacks:** Jacks on the back of the DVD System that send audio to another system (TV, Stereo, etc.).

**Bit Rate:** The amount of data used to hold a given length of music; measured in kilobits per seconds, or kbps. Or, the speed at which you record. Generally, the higher the bit rate, or the higher the recording speed, the better the sound quality. However, higher bit rates use more space on a Disc.

**Chapter:** Sections of a picture or a music piece on a DVD that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want.

**Component Video Out Jacks:** Jacks on the back of the DVD System that send high-quality video to a TV that has Component Video In jacks (R/G/B, Y/Pb/Pr, etc.).

**Disc menu:** A screen display prepared for allowing selection of images, sounds, subtitles, multi-angles, etc recorded on a DVD.

**Digital:** Sound that has been converted into numerical values. Digital sound is available when you use the DIGITAL AUDIO OUT COAXIAL or OPTICAL jacks. These jacks send audio through multiple channels, instead of just two channels as analog does.

**XviD:** MPEG-4 based video compression technology, that can shrink digital video to sizes small enough to be transported over the internet, while maintaining high visual quality.

**Dolby Digital:** A surround sound system developed by Dolby Laboratories containing up to six channels of digital audio (front left and right, surround left and right, center and subwoofer).

**JPEG:** A very common digital still picture format. A still-picture data compression system proposed by the Joint Photographic Expert Group, which features small decrease in image quality in spite of its high compression ratio.

**Multichannel:** DVD is specified to have each sound track constitute one sound field. Multichannel refers to a structure of sound tracks having three or more channels.

**Parental Control:** A function of the DVD to limit playback of the disc by the age of the users according to the limitation level in each country. The limitation varies from disc to disc; when it is activated, playback will be prohibited if the software's level is higher than the user-set level.

**PCM (Pulse Code Modulation):** A system for converting analog sound signal to digital signal for later processing, with no data compression used in conversion.

**Playback control (PBC):** Refers to the signal recorded on video CDs or SVCDs for controlling reproduction. By using menu screens recorded on a Video CD or SVCD that supports PBC, you can enjoy interactive-type software as well as software having a search function.

**Progressive Scan:** It displays all the horizontal lines of a picture at one time, as a signal frame. This system can convert the interlaced video from DVD into progressive format for connection to a progressive display. It dramatically increases the vertical resolution.

**Surround:** A system for creating realistic three-dimensional sound fields full of realism by arranging multiple speakers around the listener.

**Title:** The longest section of a picture or music feature on DVD, music, etc., in video software, or the entire album in audio software. Each title is assigned a title number enabling you to locate the title you want.

**VIDEO OUT jack:** Jack on the back of the DVD System that sends video to a TV.

**HDMI:** High Definition Multimedia Interface. A specification developed by the HDMI Working Group that combines multi-channel audio and high definition video and that controls signals into a single digital interface for use with DVD players, digital television, and other audiovisual devices.

