PRIMARE

DVD30 Universal Disc Player

Copyright and acknowledgements

The information in this guide is believed to be correct as of the date of publication. However, our policy is one of continuous development and so the information is subject to change without notice, and does not represent a commitment on the part of Primare Systems AB.

FCC Warning: This equipment generates and can radiate radio frequency energy and if not installed and used correctly in accordance with our instructions may cause interference to radio communications or radio and television reception. It has been type-tested and complies with the limits set out in Subpart J, Part 15 of FCC rules for a Class B computing device. These limits are intended to provide reasonable protection against such interference in home installations.

EEC: This product has been designed and type-tested to comply with the limits set out in EN55013 and EN55020.

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PLAYING MP3'S

INTRODUCTION

Welcome to the Primare DVD30 Universal Discplayer! This chapter introduces you to its key features, and explains how you can take advantage of its configurability to create a system perfectly suited to your requirements.

Welcome to the DVD30 Universal Disc Player

The DVD30 is endowed with the very latest video and audio processing technology to deliver the best performance from any disc that you choose. Its universal capabilities will ensure ultimate convenience and ease of use.

Universal choice

The DVD30's twin-wave laser pickup for CD and Video allows you to play CD/SACD/CD-R/CD-RW/MP3/ DVD-A/DVD-V/DVD-R and DVD-RW (DVD Video Format) discs for true multi-media compatibility.

Video Performance Features

The DVD30's twin-wave laser pickup for CD and Video allows you to play CD/SACD/CD-R/CD-RW/MP3/ DVD-A/DVD-V/DVD-R and DVD-RW (DVD Video Format) discs for true multi-media compatibility.

Audio Performance Features

Superior sound quality is assured through the use of triple, balanced, 192KHz/24bit DACs allowing multi-channel DVD-A and SACD playback for surround sound music with useful bass management facilities. Primare's characteristically refined analogue, fully balanced, circuitry will provide clear, undistorted sound to match the DVD30s superb video performance. Total Harmonic Distortion is a mere 0.004% at 1kHz whilst dynamic range, S/N ratio and channel separation meet the highest specification. Built-in decoding of Dolby(r) Digital and dts(r) surround sound formats means that the DVD30 can act as both player and surround processor in a high calibre home theatre system.

Flexible outputs

The DVD 30 provides a wide range of video and audio outputs to embrace numerous system-building options. Video outputs include two Component Video outputs, S-Video, Composite Video and 21-pin Scart. Digital coaxial, optical, outputs are augmented by a six-channel RCA analogue output, two-channel RCA and ultra-low noise balanced XLR outputs.

Mulitmedia inputs

To allow the DVD30 to perform in specialised automated multi-room applications, it is equipped with RS232 control capability, and offers data and IR inputs.

Easy navigatíon

The DVD30 is easy to use. All the parameters are adjusted using simple but comprehensive On Screen Display menus, which work in conjunction with a "setup navigator" that immediately guides the user through the basics during initial power-up, allowing a quick, easy and convenient way to optimise the DVD30 according to user taste and environment.

Technical specification

Video Performance Features

PureCinema Progressive Scan (2-3 Pulldown)

108MHz/12bit Video DAC for high-quality DVD pictures

6 MHz Bandwidth

Twin-Wave Laser Pickup for CD/Video CD/CD-R/CD-RW/DVD-R/RW (DVD VideoFormat)

Playback Super-Fine Focus Filter with 4:4:4 Video Up-sampling

16 Video Parameter Adjustments w/3 User Memories
(Progressive Motion, PureCinema (on, off, Auto),YNR, CNR, Mosquito NR, Block NR, Sharpness High, Sharpness Mid, Detail, White level, Black Level, Gamma, Black Setup, Hue, Chroma Level, Chroma Delay)

3 Factory Video Settings (CRT/PDP/Professional)

Still/Step Play (Forward/Reverse, Except VCD Reverse)

Slow Motion Playback (Except VCD Reverse)

Audio Performance Features

Multi-channel DVD Audio Playback

Multi-channel SACD Playback (1 bit)

MP3 Playback Capability

Bass Management

Triple 192KHz/24-bit (3x2 channel) Audio DAC's for Superior Sound Quality

Fully balanced circuitry

THD + Noise, 0.004% at 1 kHz

Dynamic range, 100dB

Signal-to-noise Ratio, 100dB

Channel separation, 100 dB

Output Level, 2.0V Maximum

Dolby® Digital and dts® Digital Outputs

Dolby® Digital and dts® Decoders

Convenience Features

Resume Function (DVD, Video CD)

Repeat Mode

Program Play

Output Terminals Video

Component Video (Y, Cr, Cb) Output x 2 (Gold Plated)

S-Video (S2 Compatible) x 1 (Gold Plated)

Composite Video Output x 1 (Gold Plated)

21-pin Scart x 1, RGB compatible

Output Terminals Audio

Dolby® Digital/dts®/LPCM Coaxial Output x 1

Dolby® Digital/dts®/LPCM Optical Output x 1

Dolby® Digital/dts®/LPCM XLR Output x 1

Analog Output x 1 (Gold Plated)

6 Channel Audio Output x 1

Output Terminals Others

IR input, 3,5 mm

Data input,

RS232 input

Construction

2mm non-magnetic Heavy Duty chassis.

Power Consumption

Operating: 38 W, Standby: 14 W

Dimensions (WxHxD) 430 x 100 x 380 mm

Weight 7,5 kg

HOW TO GET STARTED

This chapter provides a quick overview of how to connect the DVD30 player and how to start playing discs. More detailed explanations of all the various functions are explained in the following chapters.

Power connection

⚠️ WARNING: Before connecting power check that the required supply voltage, indicated on the back panel, corresponds to your local AC supply. If a different voltage is stated on the type plate do not connect the DVD30 to the mains power, and seek advice from your dealer.

Connect the mains power using the enclosed mains cable.

NOTE: Always disconnect the DVD30 from the mains power before connecting or disconnecting any of the cables.

Switching on and off

To switch on

• Use the main switch on the back panel.(D).

During normal operation you can leave the DVD30 switched on and in standby mode.

To switch on from standby or to standby

• Pressing ⏻ on the front panel or on the remote control, will change the standby mode.

Back panel connections
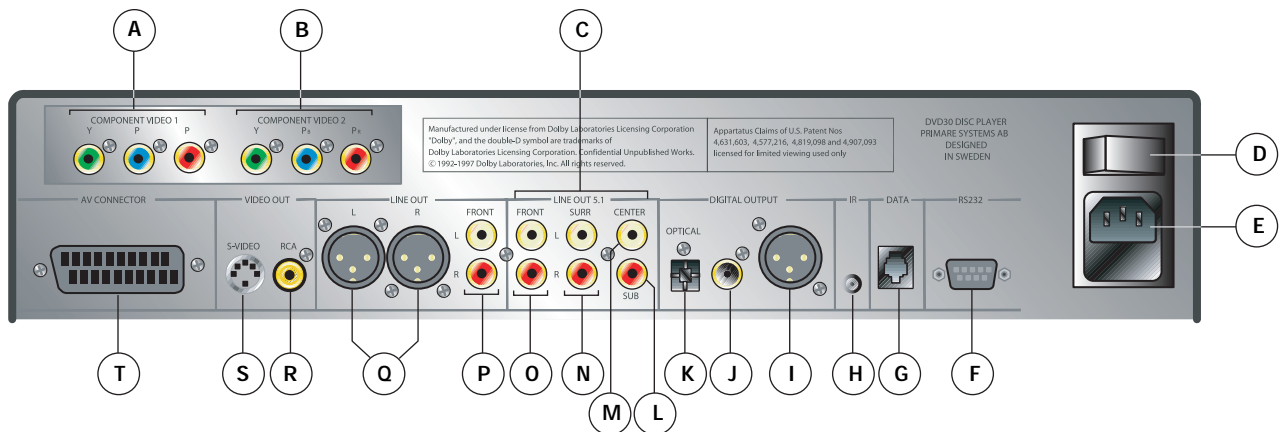
A.	Component video output 1	H.	External IR-input	O.	Analog RCA front outputs
B.	Component video output 2	I.	Digital AES/ EBU output	P.	Analog RCA front outputs
C.	5:1 output	J.	Digital SPDIF output	Q.	Analog XLR front outputs
D.	Mains switch	K.	Digital TOSlink output	R.	Composite output
E.	Main power input and fuse	L.	Sub analog output	S.	S-video output
F.	RS232 port	M.	Center analog RCA output	T.	Scart
G.	Data port	N.	Analog RCA surround outputs		

Front panel- and basic playback controls

A   ⏮   **Skips to the start of the current track or chapter, then to previous tracks/chapters.**

B   ◀◀   **Press once to start reverse scannning.**
Press again to increase the scan speed. (SACD, CD and Video CD have two scan speeds; DVD has three). Press ▶ to resume normal playback.

C   ▶▶   **Press once to start forward scannning.**
Press again to increase the scan speed (SACD, CD and Video CD have two scan speeds; DVD has three). Press ▶ to resume normal playback.

D   ⏭   **Skips to the next track or chapter.**

E   ⏏   **Opens/ and closes the disc tray.**

F   ■   **Stops playback.**
DVD and Video CD: Display shows RESUME. Press ■ again to cancel the resume function.

G   ▶   **Starts playback.**
DVD and Video CD: if the display shows RESUME, playback starts from the resume point.

H   ⏻   **Changes the standby mode.**

Front panel display

The front panel display shows what's in progress:
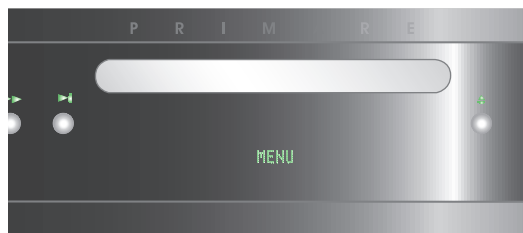
Playing discs

The basic playback controls for playing discs are covered here. Further functions are detailed in the remotecontrol chapter.

NOTE: Throughout this manual, the term 'DVD' means DVD-Video, DVD-Audio and DVD-R/RW. If a function is specific to a particular kind of DVD disc, it is specified.

- Switch the player on.
  If you're playing a DVD or Video CD, also turn on your TV and make sure that it is set to the correct video input.

- Press ⏏ to open the disc tray.

- Load a disc.
  Load a disc with the label side facing up, using the disc tray guide to align the disc (if you're loading a double-sided DVD disc, load it with the side you want to play face down).

- Press ► to start playback.

TV System

The default setting of this player is AUTO, and unless you notice that the picture is distorted when playing some discs,you should leave it set to AUTO. If you experience picture distortion with some discs, set the TV system to match your country or region 's system.

- Switch the player into standby.

- Hold down ► then press ⏻ to switch the TV system.
  - You have to switch the player into standby before each change.

The TV system changes as follows:

AUTO -> NTSC -> PAL -> AUTO -> NTSC -> PAL etc.

The display indicates the new setting.

  - This function is not available in region three players.

About MOD.(Modulation)PAL

Most models of the newly developed countdown PAL TV system detect 50 Hz (PAL)/60 Hz (NTSC) and automatically switch vertical amplitude, resulting in a display without vertical shrinkage.

If your PAL TV does not have a V-Hold control, you may not be able to view NTSC disc because the picture may roll. If the TV has a V-Hold control, adjust it until the picture stops rolling. On some TVs, the picture may shrink vertically, leaving black bands at the top and bottom of the screen.This is not a malfunction; it is caused by the NTSC -> PAL conversion.

Infra-red remote control

The DVD30 is controlled by an infra-red remote control pointed at the front panel.

The DVD30 can also be controlled by using the IR-input at the backpanel.

- Switch off the DVD30 using the main switch at the backpanel.

- Hold down the ►► button at the front and then switch on again by using the main switch.

The display shows 'Remote back input'.

For security reasons this setting disappears every time the DVD30 player is switched off by using the main switch. To reactivate the IR-input at the backpanel the above described procedure has to be repeated.

Resetting the disc player

- Switch the player into standby.
- Hold down ■ then press ⏻ to reset the player.

COMPATIBILE DISCS AND DVD-V REGIONS

This chapter informs about the disc formats that are compatible with the DVD30 player. An overview of DVD-V regions is also included.

Disc compatibility

DVD-V	CD-RW/R
DVD-A	Video CD
DVD-RW/R	SVCD
SACD	MP3
Audio CD	

DVD-V Regions

The map shown below indicates DVD-V region codes for all areas of the world. All DVD-Vs are marked with a region code, which is often located on the disc packaging. The DVD30's rear panel is also marked with a region code. The DVD30 is compatible with discs marked with this same region code or with the ALL region code. The DVD30 is not compatible with discs marked with other region codes.
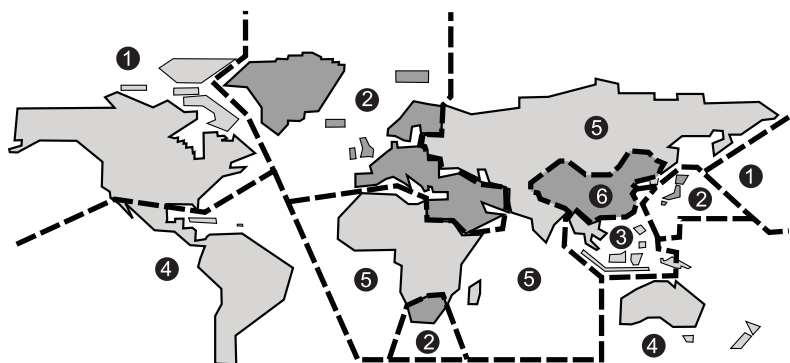
ADVANCED FEATURES

This chapter explains the function buttons of the remote control which are needed to give you acces to the advanced features of the DVD30 player.

How to use the remote control

The DVD button (C) must have been pressed before any operations can be carried out.

A.   Dims the front panel. Four steps- three different levels and off.

B.   Numerical buttons

C.   DVD button

D.   Pause: Pauses a disc that's playing, or restarts a paused disc

E.   Menu: The DVD menu appears on screen

F.   Slow motion forward

G.   Top menu: The DVD top menu appears on screen

H.   Displaying disc information, see page 12

I.   The setup menu appers on screen

J.   Changes subtitle

K.   Switching audio language

L.   Browse to specific parts of a disc

M.   Switching camera angles

N.   Memorizing disc settings

O.   Making a program list

P.   Using repeat play

Q.   Slow motion reverse

R.   Return: Returns to the previous step in the menu

S.   Clear: Normally used as a delete function

On the following pages more detailed explanations will follow.
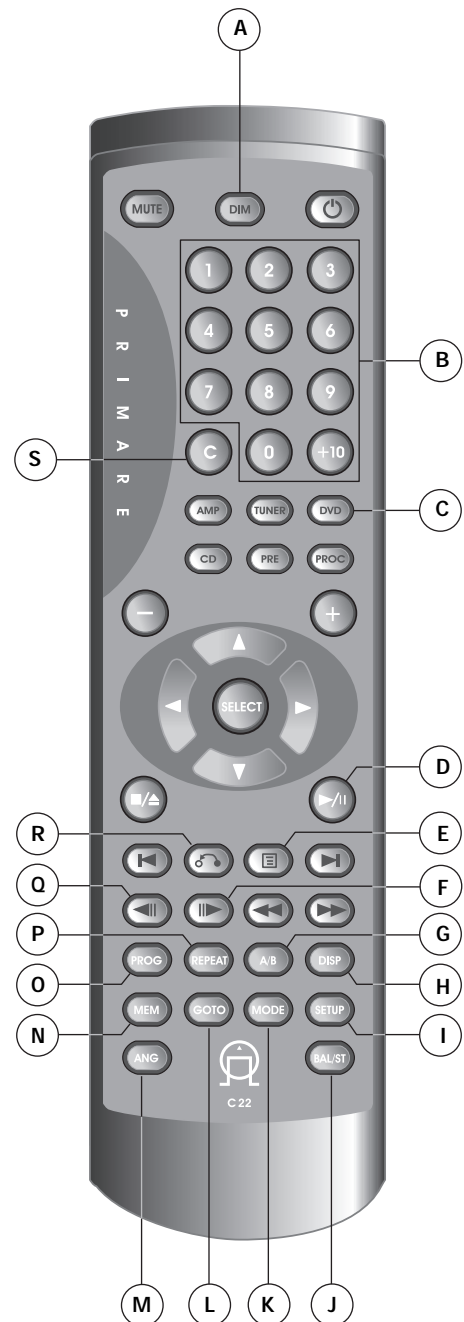
Switching camera angles
DVD

Some DVD Video discs feature scenes shot from two or more angles- check the disc box for details: it should be marked with a icon if it contains multi-angle scenes.

- To switch the camera angle, press ANG. If the disc was paused, playback starts again with the new angle.

- To hide the TV angle indicator, choose Angle Indicator -> Off from the Video 2 menu (see page 27).

Switching subtitles
DVD

Many DVD Video discs have subtitles in one or more languages- the disc box will usually tell you which subtitle languages are available. You can switch subtitle language anytime during playback.

- To display/switch the subtitle language, press BAL/ST repeatedly.
  The current subtitle language is shown on-screen.

- To switch off subtitles, press BAL/ST then C.

- To set subtitle preferences, see page 28.

Switching audio language
DVD-Video

When playing a DVD Video disc recorded with dialog in two or more languages, you can switch audio language anytime during playback.

- To display/switch the audio language, press MODE repeatedly.
  The current audio language is shown on-screen.

- To set audio language preferences, see page 27.

Making a program list

This feature lets you program the play order of titles groups/chapters/tracks on a disc. You make a program list via an on-screen display, using the cursor buttons to navigate and the number buttons to enter titles/chapters/tracks.

NOTE that programmed playback is not available for DVD-RWs.

DVD

- Press PROG.


```
Program Chapter  Program Title
Current:         Title     1  Chapter     1
 Title                     1  (Chapter 1~35)
 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
 Program Memory -- Off

   Move        ENTER Play  PROGRAM Exit
```



```
Program Chapter  Program Title
Current:         Title     1(/1)

 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
 Program Memory -- Off

   Move        ENTER Play  PROGRAM Exit
```
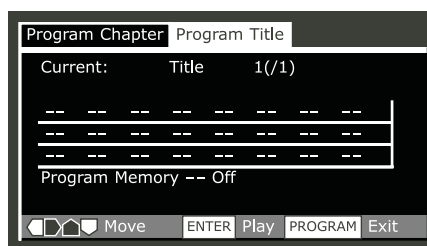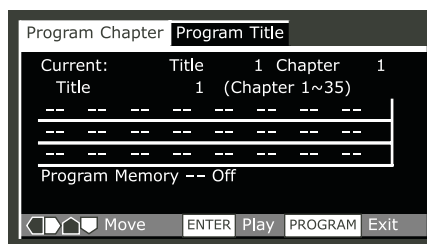
- Press the ◄ or ► buttons to select 'Program Chapter' or 'Program Title'.

- Press the ▼ button to the program list window.
  - If you selected Program Chapter, press the ▲ button and enter a title number (all the programmed chapters will come from this title).

- Enter the title/chapter numbers for your program list. For titles/chapters 1 –9, use the corresponding number buttons. For 0 and over, use the +10 button (+10, +10, 4 for 24, etc.).
  - You can program a pause instead of a title/chapter: press 8 instead of entering a number in the program list.(A pause can't be the first or last step in the list.)

A program list can contain up to 24 steps.

- If you want to save the program list, press the ▼ button down to 'Program Memory' and set it to 'On '.

If you do this, the program list is automatically recalled when you next load the disc. You can save program lists for up to 24 discs.

After setting to 'On', move the cursor back up to the program list window.
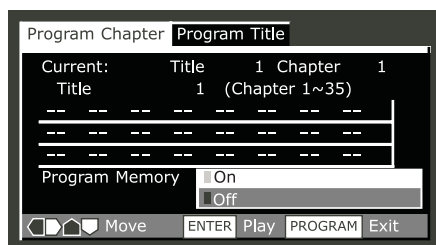
```
Program Chapter  Program Title
Current:        Title      1  Chapter    1
  Title           1  (Chapter 1~35)
 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
Program Memory    ▢On
                  ▢Off
◁▷△▽ Move    ENTER Play  PROGRAM Exit
```

- Press SELECT or ► to start playback immediately, or PROG to exit if you want to start playback later.

During program play, you may occasionally see the start of a chapter that was not programmed when the chapter number changes. This is not a malfunction.

Video CD - SACD - CD

For Video CDs that feature PBC, make sure that the disc is stopped before you start.

- Press PROG.

```
Program Track
Current:        Track      1(1/13)

 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --
 --  --  --  --  --  --  --  --

◁▷△▽ Move    ENTER Play  PROGRAM Exit
```
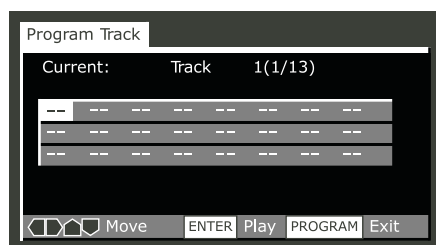
- Enter the track numbers for your program list.

For tracks 1 –9, use the corresponding number buttons. For 10 and over, use the +10 button (+10, +10, 4 for 24, etc.)

– You can program a pause instead of a track: press ‖ instead of entering a number in the program list. (A pause can't be the first or last step in the list.)

A program list can contain up to 24 steps.

- Press SELECT or ► to start playback immediately, or PROG to exit if you want to start playback later.

You can't start playback later with a PBC Video CD; press SELECT or ► to start.

Using repeat play

DVD - Video CD - CD

You can set the player to repeat individual tracks on CDs or Video- CDs, chapters/tracks or titles/group on DVD discs, or the whole disc. It's also possible to loop a section of a disc.

You can use the repeat together with the programming mode to repeat the tracks/chapters in the program list (see page 10 for how to make a program list).

You can't use any repeat mode or looped play with a Video CD playing in PBC mode.

Looped playback is not possible with SACD.

Each press switches the repeat mode:

DVD
Chapter/Track -> Title/Group -> Off

Video CD - CD
Track -> All -> Off

Memorizing disc settings

DVD-Video

If you have a particular set of preferences for a disc, you can memorize them using the Condition Memory function. Once memorized, your settings will be recalled automatically whenever you load that disc. The player can store settings for 15 discs; after this, memorizing another replaces the oldest one stored.

Condition Memory does not work with DVD-Audio and DVD-RW discs.

The settings memorized are:

– Multi-Angle (page 10)
– Subtitle Language (page 10)
– Audio Language (page 10)
– On Screen Display (page 27)
– Video Adjust (page 25)
– Parental Lock level (page 30-31)

• To memorize settings for the current disc, press MEM during playback.

• To recall memorized settings, just load the disc.

The display shows COND_MEM and 'Condition Memory' appears on-screen.

Displaying disc information

DVD - Video CD - SACD - CD

Various track, chapter and title information, as well as the video transmission rate for DVD discs, can be displayed on-screen while a disc is playing, or while it's stopped.

• To show/switch the information displayed, press DISP. When a disc is playing, the information appears at the top of the screen. Keep pressing DISP to change the displayed information.

```
Play              1/5      0.07
  Track           TRACK 1-1
```

When a disc is stopped, all title/chapter, or track information for the disc loaded appears on-screen. Press DISP again to exit the screen.

DVD-Video

```
Information:DVD

Title   Chapter     Title   Chapter
01      1~30        06      1~10
02      1~21        07      1~13
03      1~46        08      1~05
04      1~12        09      1~04
05      1~08        10      1~08

◁ 1/1 ▷                    DISPLAY  Exit
```
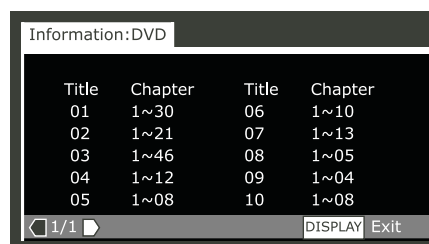
Titles and number of chapters in each title

Video-CD - CD

```
Information:Compact Disc
  Total time            72.04
  Track   Time          Track   Time
  01      5.23          06      6.51
  02      4.55          07      3.18
  03      6.13          08      6.50
  04      5.45          09      4.16
  05      5.10          10      3.22
  1/2 ▷                       DISPLAY  Exit
```

Total playing time of disc, tracks and track times

DVD-RW

```
Information:DVD-RW
  Disc    [          ]

  Title   Original      1~6
          Play List     1~3



                        DISPLAY  Exit
```
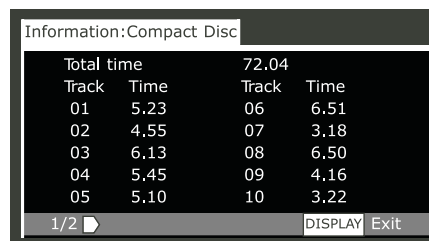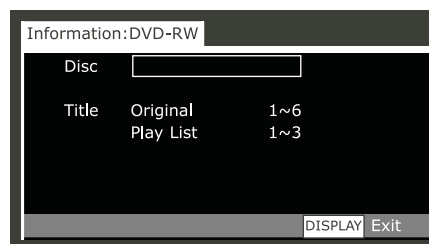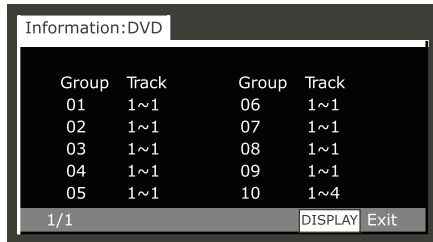
Disc name (if programmed) and number of titles in the Original recording and the Play List.

DVD-Audio
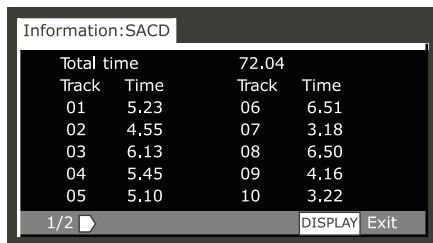
```
Information:DVD

   Group   Track      Group   Track
   01      1~1        06      1~1
   02      1~1        07      1~1
   03      1~1        08      1~1
   04      1~1        09      1~1
   05      1~1        10      1~4
   1/1                         DISPLAY  Exit
```

Groups and number of tracks in each group

SACD

```
Information:SACD
   Total time          72.04
   Track   Time        Track   Time
   01      5.23        06      6.51
   02      4.55        07      3.18
   03      6.13        08      6.50
   04      5.45        09      4.16
   05      5.10        10      3.22
   1/2                         DISPLAY  Exit
```

Total playing time of disc, tracks and track times

Navigating a disc

DVD - Video CD - SACD - CD

You can directly access any point on a disc using one of the search modes. Use these search modes while a disc is playing, or when it's stopped. Playback jumps to the point specified.

- Press GOTO repeatedly to choose between:

    – Title/Group search (DVD only)
    – Chapter/Track search
    – Page search (DVD-Audio discs with browsable pictures only)
    – Time search (DVD-Video and Video CD only)
    – Frame &Time search (DVD-Video only)
      (The Frame Search option in the Video1 menu must be 'On' to use this) (page 24).

- Off

SETTINGS IN THE GENERAL MENU

This chapter explains the necessary basic settings of the DVD30 player in the General menu including the Setup Navigator.

Using the Setup Navigator

Before playing any discs, we strongly recommend using the Setup Navigator. This makes all the basic DVD player settings for you.

- Press the ⏻ button to switch on.

Also turn on your TV and make sure that it is set to the correct video input.

- The ⏻ button switches the player between standby and on.

- If a disc that's already loaded starts to play, press ■ to stop it.

- Press SETUP.

The Setup Navigator on-screen display (OSD) appears:
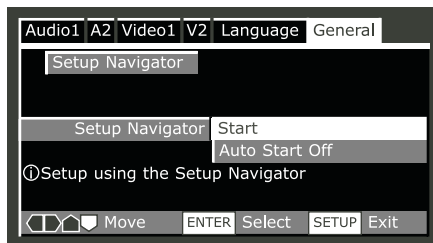
Navigate all of the following OSDs using these controls:

Selection	Option
Pressing the ▲ or ▼ buttons	cursor up/down
ENTER	select the highlighted menu option
The ◀ button	go back to the previous question.
The ▶ button	go forward to the next question.

The control possibilities for the current OSD are shown at the bottom of each screen.

The player automatically takes you to the setup navigator the first time you press setup on the remote. After first setup, you will always come back to where you left the setup menu.

Setup Navigator

- Select 'Start'.
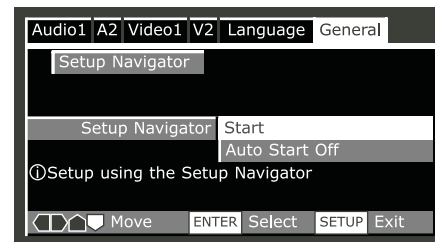
- Choose an OSD menu language.

• Select the type of TV you have.

```
Audio1  A2  Video1  V2   Language   General
      Setup Navigator

   TV Connection
             TV Type   Widescreen (16:9)
                       Standard
  ⓘWidescreen TV
    16:9 aspect ratio
  ◁▷⌂▽ Move      ENTER  Select   SETUP  Exit
```
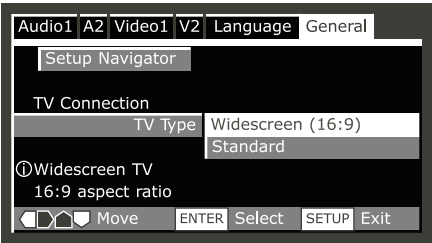
• Select the type of analog audio connections you made to your amplifier/receiver.

```
Audio1  A2  Video1  V2   Language   General
      Setup Navigator

   Amp Connection     2 Channel
        Analog Jacks  5.1 Channel
                      Not Connected
  ⓘ2 channel jacks for L/R

  ◁▷⌂▽ Move      ENTER  Select   SETUP  Exit
```
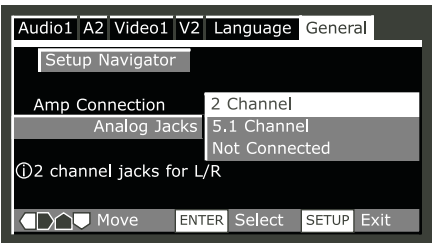
If you selected 5.1 Channel audio connections in the previous step, confirm which speakers are connected to your amplifier.

```
Audio1  A2  Video1  V2   Language   General
      Setup Navigator

   Amp Connection
        Center Speaker  Present
                        Not Present
  ⓘCenter speaker is connected
    to an amplifier
  ◁▷⌂▽ Move      ENTER  Select   SETUP  Exit
```

```
Audio1  A2  Video1  V2   Language   General
      Setup Navigator

   Amp Connection
     Surround Speakers  Present
                        Not Present
  ⓘSurround speakers are connected
    to an amplifier
  ◁▷⌂▽ Move      ENTER  Select   SETUP  Exit
```

```
Audio1  A2  Video1  V2   Language   General
      Setup Navigator

   Amp Connection
           Sub-woofer   Present
                        Not Present
  ⓘSub-woofer is connected
    to an amplifier
  ◁▷⌂▽ Move      ENTER  Select   SETUP  Exit
```

Confirm the digital audio formats your amplifier is compatible with (if you made a digital connection).

```
Audio1  A2  Video1  V2   Language   General
      Setup Navigator   Dolby Digital
                        Dolby Digital/DTS
                        Dolby Digital/MPEG
   Amp Connection       Dolby D/DTS/MPEG
        Digital Jack    PCM
                        Not Connected
  ⓘCompatible with Dolby Digital
  ◁▷⌂▽ Move      ENTER  Select   SETUP  Exit
```
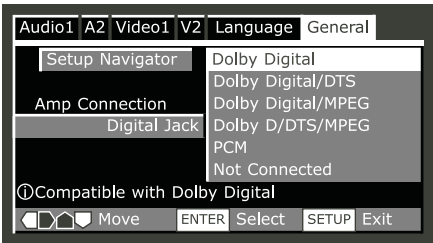
All options (except Not Connected) assume PCM compatibility. The PCM option means only compatible with PCM. Consult the manual that came with your amplifier if you're unsure about compatibility with any of these formats.

Consult the manual that came with your amplifier if you're unsure about compatibility with any of these formats.

• Confirm whether your amplifier is compatible with 96kHz audio.

```
┌──────────────────────────────────────────┐
│ Audio1  A2  Video1  V2  Language  General │
│   ▐ Setup Navigator ▌                     │
│                                           │
│   Amp Connection      No                  │
│   ▐ 96kHz PCM Audio   Yes                 │
│                       Don't Know          │
│  ⓘ Digital jacks not compatible with 96kHz│
│                                           │
│  ◀▭▷◁▽ Move   ENTER Select  SETUP Exit    │
└──────────────────────────────────────────┘
```
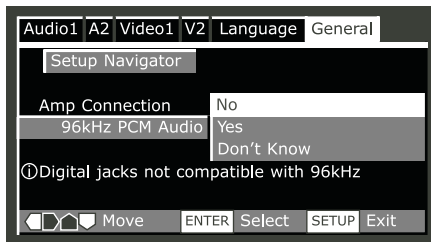
– You won't see this screen if you selected 'Not Connected' above. Selecting 'Don't Know' has the same effect as selecting No: any 96kHz audio will be downsampled to 48kHz. This is a more compatible sampling frequency.

• Select 'Save Changes' to make the settings.

```
┌──────────────────────────────────────────┐
│ Audio1  A2  Video1  V2  Language  General │
│   ▐ Setup Navigator ▌                     │
│                                           │
│                       Save Changes        │
│   ▐ Exit Setup Navigator  Delete Changes  │
│                       Start Again         │
│  ⓘ Changes are saved                      │
│                                           │
│  ◀▭▷◁▽ Move   ENTER Select  SETUP Exit    │
└──────────────────────────────────────────┘
```
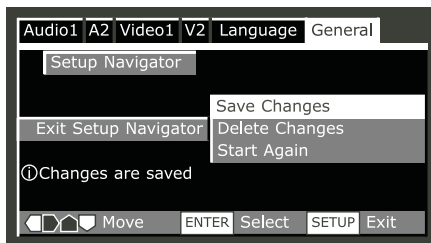
Setup Menu Mode

Default setting: Expert

The Expert setup menu gives you access to all the player's settings.

• Switch to 'Basic' for a reduced set of more commonly used settings. The Basic menu also features an information bar which tells you more about what the currently highlighted option means.

Sections below marked with **EXPERT** are available only in Expert mode.

```
┌──────────────────────────────────────────┐
│ Audio1  A2  Video1  V2  Language  General │
│    Setup Menu Mode    ▐ Expert            │
│    Setup Navigator    ▐ Basic             │
│    Parental Lock  --- Off(us)             │
│    Bonus Group                            │
│    Auto Disc Menu --- On                  │
│    Group Playback --- Single              │
│                                           │
│  ◀▷◁▽ Move              SETUP Exit        │
└──────────────────────────────────────────┘
```

This chapter gives an overview of all set up menus of the DVD30 player and a detailed description of how to use them.
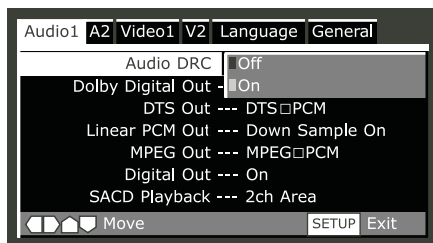
Using the Setup menu

The Setup menu gives you access to all the player's settings. Press SETUP to display/leave the menu and the cursor buttons and SELECT on the remote to navigate and select options. In some screens you can press the 🎧 button to leave the screen without making any changes. The controls for each menu are shown at the bottom of the screen. If an option is grayed out it means that it cannot be changed at the current time. This is usually because a disc is playing. Stop the disc, then change the setting. The current setting for any option is marked with a highlighted box.

Audio DRC

• Default setting: Off

When watching Dolby Digital DVDs at low volume, it's easy to lose the low level sounds completely—including some of the dialog. Switching on Audio DRC (Dynamic Range Control) can help things by bringing up the low level sounds, while keeping the lid on high level peaks.

The 'Off ' setting leaves the original dynamics intact; 'On' 'squashes' the dynamics; but exactly how much difference you can hear between the settings will depend on the material you're watching.
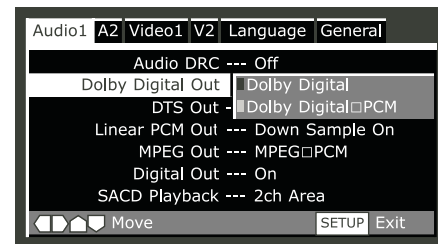
```
Audio1 A2 Video1 V2 Language General
              Audio DRC  Off
        Dolby Digital Out  On
              DTS Out --- DTS□PCM
          Linear PCM Out --- Down Sample On
             MPEG Out --- MPEG□PCM
             Digital Out --- On
          SACD Playback --- 2ch Area
    Move                        SETUP  Exit
```

Dolby Digital Out

• Default: Dolby Digital

You only need to make this setting if you connected this system to another component (AV amplifier, etc.) using one of the digital outputs.

• If your AV amplifier (or other connected component) is Dolby Digital compatible, set to 'Dolby Digital', otherwise set to 'Dolby Digital - PCM'.

```
Audio1 A2 Video1 V2 Language General
              Audio DRC --- Off
        Dolby Digital Out  Dolby Digital
              DTS Out -  Dolby Digital□PCM
          Linear PCM Out --- Down Sample On
             MPEG Out --- MPEG□PCM
             Digital Out --- On
          SACD Playback --- 2ch Area
    Move                        SETUP  Exit
```
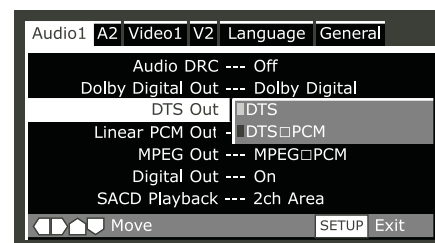
DTS Out

• Default setting: DTS - PCM

You only need to make this setting if you connected the player to another component (AV amplifier, etc.) using one of the digital outputs.

• If your AV amplifier (or other connected component) has a built-in DTS decoder, set this to 'DTS', otherwise set to 'DTS - PCM'. Check the manual that came with the other component if you're unsure whether it is DTS compatible.

```
Audio1 A2 Video1 V2 Language General
              Audio DRC --- Off
        Dolby Digital Out --- Dolby Digital
              DTS Out  DTS
          Linear PCM Out -  DTS□PCM
             MPEG Out --- MPEG□PCM
             Digital Out --- On
          SACD Playback --- 2ch Area
    Move                        SETUP  Exit
```

Linear PCM Out

• Default setting: Down Sample On

You only need to make this setting if you connected the player to another component (AV amplifier, etc.) using one of the digital outputs.

• If your AV amplifier (or other connected component) is compatible with high sampling rates (96 kHz), set this to 'Down Sample Off', otherwise set it to 'Down Sample On' (96 kHz audio is converted to a more compatible 48 kHz). Check the manual that came with the other component if you're unsure whether it is 96 kHz compatible.
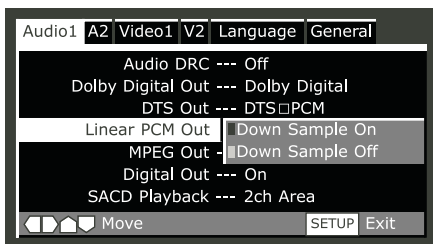
MPEG Out

• Default setting: MPEG - PCM

You only need to make this setting if you connected the player to another component (AV amplifier, etc.) using one of the digital outs.

• If your AV amplifier (or other connected component) is compatible with MPEG audio, set this to 'MPEG', otherwise set it to 'MPEG - PCM' (MPEG audio is converted to more compatible PCM audio). Check the manual that came with the other component if you're unsure whether it is MPEG audio compatible.
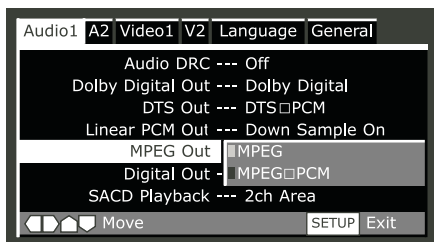
## Digital Out - EXPERT

• Default setting: On

If at any time you need to switch off the digital audio output, set this to 'Off', otherwise leave it 'On'. Note that you can't switch on/off the optical and coaxial outp uts individually.
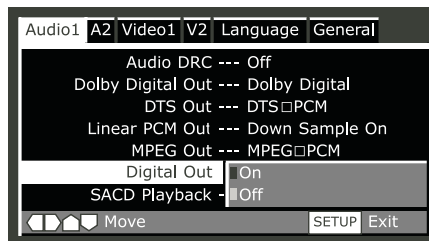
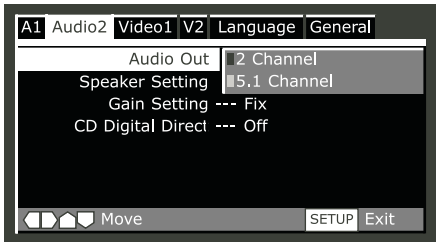## SACD Playback - EXPERT

• Default setting: 2ch Area

SACD discs can be divided up into several different areas – stereo audio, 5.1 channel audio and, for hybrid SACDs, standard CD audio. The SACD Playback setting enables you to select which area of the disc you want to play.
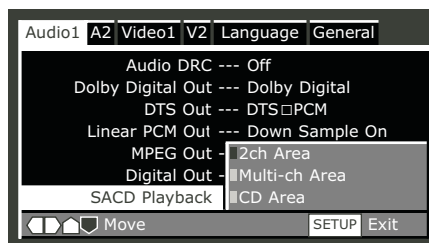
Audio Out

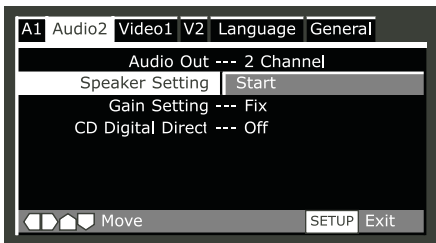• Set in Setup Navigator (Default: 2 Channel)

If you connected this player to your amplifier using the 5.1 channel analog outputs (front, surround, center and subwoofer outs), set this to '5.1 Channel'; if you connected only the stereo outs, set to '2 Channel'.

```
A1  Audio2  Video1  V2  Language  General

              Audio Out   ▮2 Channel
         Speaker Setting  ▮5.1 Channel
           Gain Setting --- Fix
       CD Digital Direct --- Off


       ◄►▲▼ Move                  SETUP  Exit
```

Speaker Setting
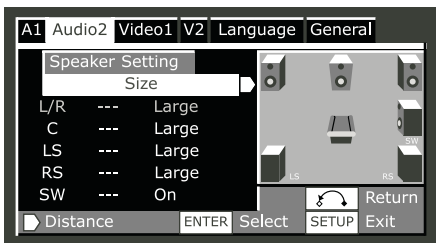
Size

• Set in Setup Navigator

The DVD30 can provide signal to upto five loudspeakers and one subwoofer. If your surround system does not include a full set of speakers, the DVD30 will distribute the signals from these channels to the other channels as appropriate in your system.

For left/ right, center, left surround and right surround you can specify whether the speaker is large, in which case it can handle the bass below the crossover setting for that channel. Alternatively you can specify the speaker to small, in which case the bass for that channel is handled by a subwoofer or any speaker set to large. The subwoofer you can only set to 'On' or 'Off'.

When setting the C, LS and RS parameters, select 'Small' to apply to 100 Hz crossover point through the associated channel(s). Select 'Large' to provide full-range audio output through the associated channel(s). Select 'Off' if the associated speaker is not present.

Default Size:

Center: Large
Left surr: Large
Rigth surr: Large
Subwoofer: On

You only need to make this setting if you connected this player to your amplifier using the 5.1 channel analog outputs. This setting does not affect digital audio output.

Follow the on-screen displays to describe which speakers are in your system and their sizes and positions.

• Set the size of your speakers in the Size screen:

```
A1  Audio2  Video1  V2  Language  General

            Audio Out --- 2 Channel
       Speaker Setting   Start
         Gain Setting --- Fix
     CD Digital Direct --- Off


     ◄►▲▼ Move                    SETUP  Exit
```

```
A1  Audio2  Video1  V2  Language  General

      Speaker Setting
              Size
     L/R    ---   Large
      C     ---   Large
     LS     ---   Large
     RS     ---   Large
     SW     ---   On
                                        Return
   ► Distance       ENTER  Select   SETUP  Exit
```

Option	Description
FRONT (L/R)	**Fixed settings of Large.**
CENTER (C)	**Select OFF, SMALL, or LARGE to specify whether there is a center speaker in the system, and whether it is small or large.**
LEFT SURROUND (LS)	**Select OFF, SMALL, or LARGE to specify whether there is a left center speaker in the system, and whether it is small or large.**
RIGHT SURROUND (RS)	**Select OFF, SMALL, or LARGE to specify whether there is a right center speaker in the system, and whether it is small or large.**
SUBWOOFER (SW)	**Select OFF or ON to specify whether the layout should include a subwoofer.**

Note that the LS and RS speakers cannot be set independently.

Speaker Settings

Distance

- Set in Setup Navigator

Default Distance: All 3,0 m

The next step in setting up the speakers is to set the speaker delays to ensure that the sound image is correctly focused.

Delaying the sound from a speaker by 1 milli-second is equivalent to moving the speaker one foot (0.3 m) further away from the listener. Because the center speaker is usually physically closer to the listener than the left and right speakers you should add a delay to the center speaker to ensure that the sound from all three front speakers reaches the listener at the same time. Regarding the rear speakers you will normally add a delay to increase the spaciousness of the sound. The left- and right surround speakers are fixed.

You only need to make this setting if you connected this player to your amplifier using the 5.1 channel analog outputs. This setting does not affect digital audio output.

Follow the on-screen displays to describe which speakers are in your system and their distances and positions.

- Set the distance of your speakers in the Distance screen:
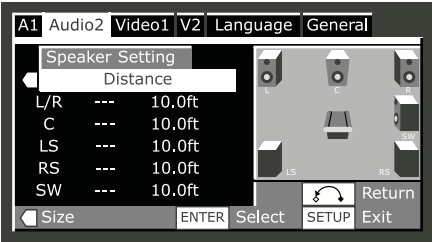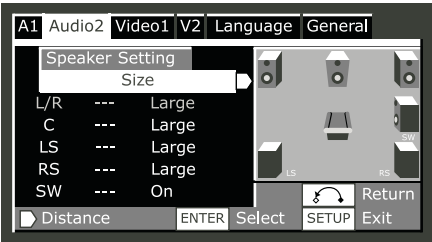
Gain Settings - EXPERT

- Set in Setup Navigator

Defaut setting: Fix

You only need to make this setting if you connected this player to your amplifier using the 5.1 channel analog outputs. This setting does not affect digital audio output.

Under the default setting, all channels are output at the relative volumes they were recorded at. Change the setting to Variable if you want to adjust the relative volume levels of any of the speakers. Adjustment is in the range of -6dB to +6dB, in steps of 0.5dB.
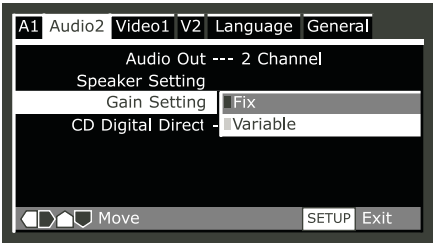
When set to 'Variable', the overall output level may sound quieter than when set to 'Fix'. This is not a malfunction.

Follow the on-screen displays to select speakers and set the channel levels.
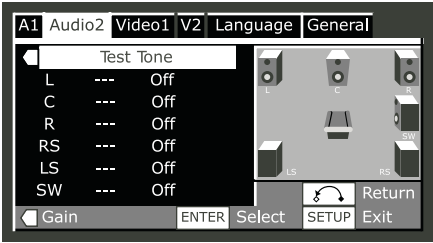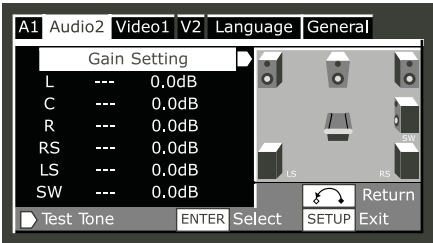
To help you gauge the correct gain levels, set the Test Tone to 'On' (test tone from just that speaker) or 'Auto' (test tone from each speaker in turn, excluding the subwoofer) then adjust the gain so that all speakers appear to be the same volume from your listening position.

• You can adjust the 'Test Tone' setting only when the player is stopped.

• Many AV amplifiers allow you to make similar settings at the amplifier stage. In this case, set the channel levels at the player or the amplifier, not both.

• As the test tone plays through a speaker, its name is highlighted.

CD Digital Direct - EXPERT

• Default setting: Off

Setting this to 'On' increases CD audio quality by bypassing certain audio circuits in the player that audio signal would otherwise pass through. However, this must be set to 'Off' for proper playback of DTS encoded CDs.
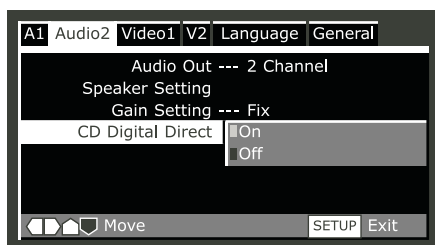

TV Screen

• Set in Setup Navigator (Default: 16:9 (Wide))

If you have a widescreen TV, select the '16:9 (Wide)' setting– widescreen DVD software is then shown using the full screen area. When playing software recorded in conventional (4:3) format, the settings on your TV will determine how the material is presented—see the manual that came with your TV for details on what options are available. If your TV does not have settings for how 4:3 sources look, choose the '16:9(Compressed)' setting. The picture you see on your TV will be determined by the disc.

If you have a conventional TV, choose either '4:3 (Letter Box)' or '4:3 (Pan & Scan)'. In Letter Box mode, widescreen software is shown with black bars at the top and bottom of the screen. Pan & Scan chops the sides off widescreen material to make it fit the 4:3 screen (so even though the picture looks larger on the screen, you're actually seeing less of the movie).
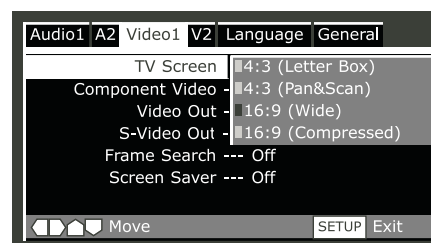
Component Video

Default setting: Progressive

Controls component video output format when the DVD30 is using the component video output connectors.
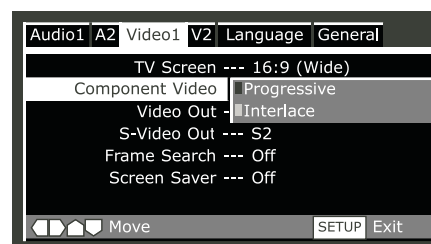
• Select 'Progressive' if the associated display device provides a progressive-scan component video input connector.

• Select 'Interlace' if the associated display device does not provide a progressive-scan component video input connector.

When 'Progressive' is selected:

– The picture might appear stretched on the associated display device screen if a video source recorded in 4:3 format is present and the DVD30 or the display device is configured for a 16:9 aspect ratio. To correct this, configure the DVD30 or the display device for a 4:3 aspect ratio.

– The picture will not appear on the associated display device screen if the display device does not provide a progressive-scan component video input connector. To correct this, set the Component Video parameter to Interlace and configure the DVD30 for a different video output connection to the display device.

Video Out

• Default setting: Video

If you make a setting here that is incompatible with your TV, the TV may not display any picture at all. If this happens either switch everything off and reconnect to the TV using either the supplied composite video cable, or an S-Video cable, or reset the unit.

Option	Description
Video	Compatible with all TVs, but lowest quality of the three AV settings.
S-Video	Almost the same quality as RGB, but can give better results if you are using a long SCART cable.
RGB	If your TV is compatible, this setting gives the best picture quality.
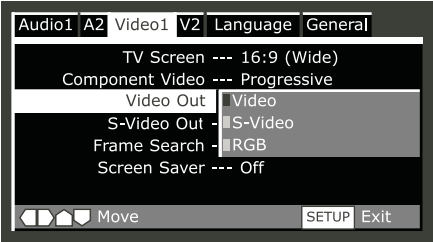
S-Video Out - EXPERT

• Default setting: S2

You only need to make this setting if you connected this player to your TV using an S-Video cord.

If you find that the picture is stretched or distorted on the default 'S2 setting', use 'S1' instead.
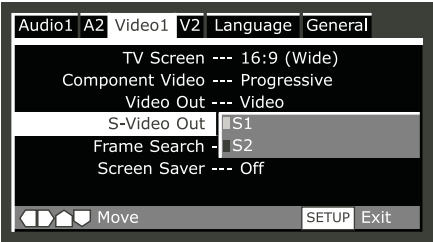
Frame Search - EXPERT

• Default setting: Off

Set this to 'On' if you want to be able to do frame-accurate searching of DVD discs (see page 13 for how to do a time and frame search). On the default setting, the time & frame search is not available.
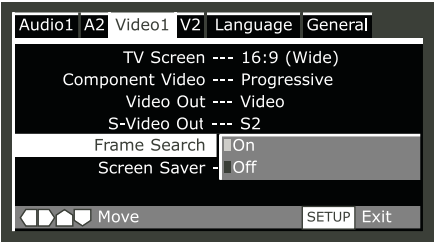
Screen Saver - EXPERT

• Default setting: Off

If a constant image is displayed on a conventional CRT-type TV, it can "burn in" leaving a ghost image on the screen. Switch to 'On' to make sure that a constant image is not displayed for a dangerously long time.

If the Screen Saver comes on when the Speaker Setup test tone is playing, the test tone will stop (page 22).
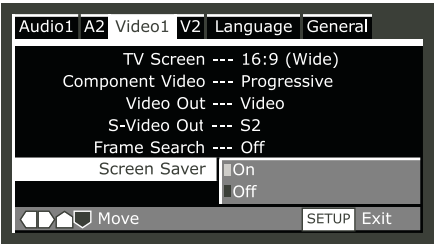
Background

• Default setting: Black

Determines the background color of Setup menu screens when resume or stop mode is activated. The video output signal appears behind Setup menu screens when playback or pause mode is activated.
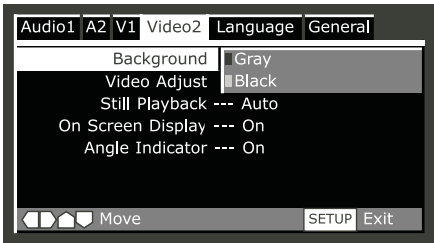
Video Adjust

There are several preset picture quality settings that suit different kinds of display device (TV, Plasma display, etc.).

Alternatively, set up your own and save them in the player's memory.
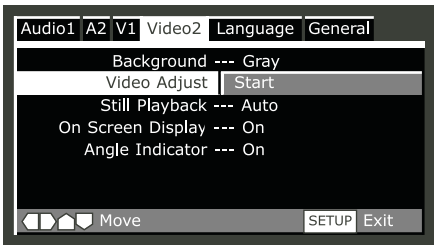
Selecting a preset

• Select 'Start'.

• Select 'Video Memory Select'

• Select a preset.
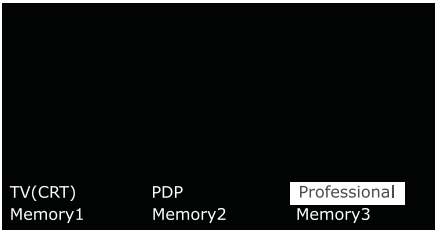
Option	Description
TV (CRT)	optimized settings for a standard television set.
PDP	optimized for a plasma display.
Professional	(default setting) optimized for a profes sional monitor.
Memory 1, 2, 3	User presets (see the following pages)

You can highlight a preset while a disc is playing (before you press SELECT to select it) to see the effect on the picture immediately.

Creating your own setting 1

• Select 'Start'.

• Select 'Video Setup'

• Use the ▲ or ▼ buttons to select a picture quality parameter, then use the ▲ or ▼ buttons to adjust that parameter.

| Option	Description
Prog. Motion	When using progressive scan, this adjusts the motion and still picture quality.
PureCinema	When watching DVD movies, PureCinema optimizes the picture quality. The default setting is Auto1, but if the picture appears unnatural, then set to Auto2, On or Off as desired and adjust the Prog. Motion setting (see above).
YNR	Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.
CNR	Adjusts the amount of noise reduction (NR) applied to the C (colour) component.
MNR (Mosquito Noise Reduction)	Adjusts the amount of noise reduction applied to the mosquito noise (video artifacts on the edge of the image resulting from MPEG compression).
Chroma Delay	Compensates for misalignment of the Y (brightness) and the C (colour) components.
BNR (Block Noise Reduction)	Adjusts the amount of noise reduction applied to the block noise.
Sharpness High	Adjusts the sharpness of the high-frequency (finely detailed) elements in the picture.
Sharpness Mid	Adjusts the sharpness of the mid-frequency (less detailed) elements in the picture.
Detail	Adjusts how sharp edges appear in the picture.
White Level	Adjusts the intensity of white in the picture.
Black Level	Adjusts the intensity of black in the picture.
Black Setup	For correction of floating black colour.
Gamma	Adjusts the brightness of the darker images in the picture.
Hue	Adjusts the overall colour balance between red and green.
Chroma Level	Adjusts how saturated colours appear.

• Press SELECT to save your changes.

Creating your own setting 2

• Select 'Start'.

• Select 'Video Setup'

• Press DISP.
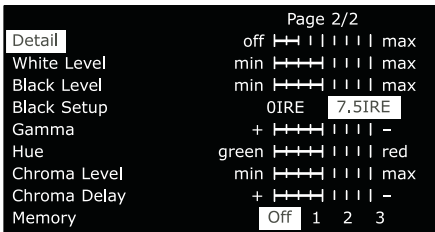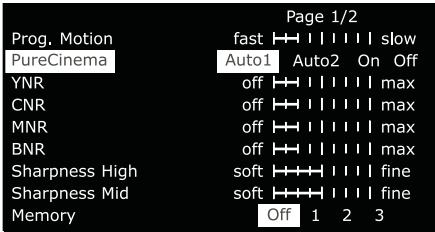
• Use the ▲ or ▼ buttons to select a picture quality parameter, then use the ◄ or ► buttons to adjust that parameter.

• To save your changes in one of the user presets, highlight Memory 1, 2 or 3 and press SELECT.

Still Picture - EXPERT

• Default setting: Auto

The player uses one of two processes when displaying a still frame from a DVD disc.

Option	Description
Auto	Automatically chosses the best settting each time.
Field	Produces a stable, generally shake-free image.
Frame	Produces a sharper image, but more prone to shake than field stills.
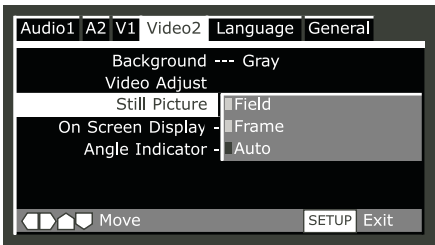
On Screen Display - EXPERT

• Default setting: On

Allows you to choose whether a top menu is shown as an on screen display or not.

```
Audio1 A2 V1 Video2  Language  General
          Background --- Gray
          Video Adjust
          Still Playback --- Auto
     On Screen Display   On
        Angle Indicator  Off

      Move                SETUP  Exit
```

Angle Indicator - EXPERT

• Default setting: On

Activates and deactivates the 📹 indicator. When set to On, the 📹 indicator appears on the front panel display when playback of a scene recorded from multiple camera angles is in progress.

If you prefer not to see the camera icon on-screen during multiangle scenes on DVD discs, change this setting to 'Off'.

```
Audio1 A2 V1 Video2  Language  General
          Background --- Gray
          Video Adjust
          Still Playback --- Auto
     On Screen Display --- On
        Angle Indicator   On
                          Off

      Move                SETUP  Exit
```
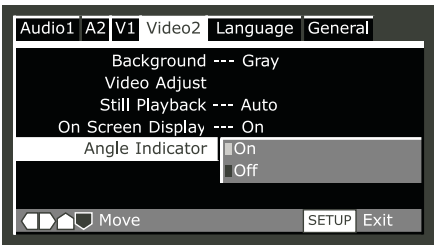
OSD Language

• Default setting: English

Choose the language you want the OSDs in.

```
Audio1 A2 Video1 V2  Language  General
        OSD Language   English
       Audio Language  francais
    Subtitle Language  Deutsch
       Auto Language   Italiano
        DVD Language   Espanol
      Subtitle Display --- On
         Subtitle Off --- Selected Subtitle

      Move                SETUP  Exit
```
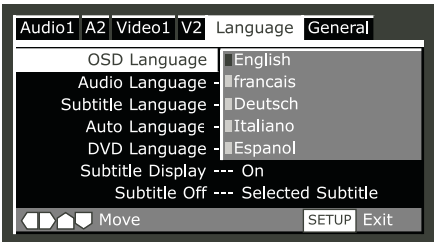
Audio Language

• Default Setting: English

This setting is your preferred audio language for DVD discs. If the language you specify here is recorded on a disc, the system automatically plays the disc in that language (although this depends on the Auto Language setting—see page 29).
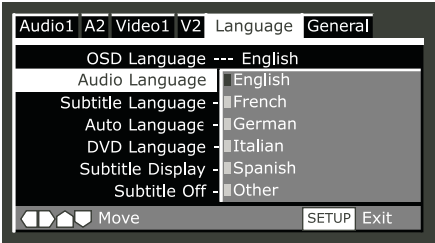
```
Audio1 A2 Video1 V2  Language  General
        OSD Language --- English
       Audio Language  English
    Subtitle Language  French
       Auto Language   German
        DVD Language   Italian
      Subtitle Display Spanish
         Subtitle Off  Other

      Move                SETUP  Exit
```
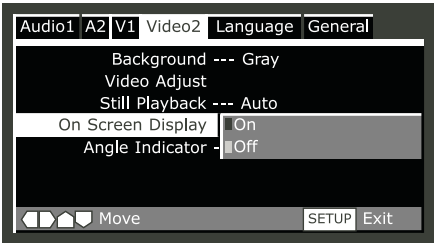
The DVD format recognizes 136 different languages. Choose 'Other' if you want to specify a language other than those listed, then follow the on-screen display to select a language.

```
Audio1 A2 Video1 V2  Language  General
      Audio Language
      List of Languages      Code (0~2)

        en:English           0  5  1  4

      +/-                         Return
      Move      ENTER Select  SETUP Exit
```

You can switch between the languages recorded on a DVD disc any time during playback using the MODE button. (This does not affect this setting.)

Subtitle Language

• Default Setting: English

This setting is your preferred subtitle language for DVD discs. If the language you specify here is recorded on a disc, the system automatically plays the disc with those subtitles (although this depends on the Auto Language setting–see page 29).

```
┌─────────────────────────────────────────┐
│ Audio1 A2 Video1 V2  Language  General   │
│         OSD Language --- English         │
│         Audio Language - ▐English        │
│       Subtitle Language  ▐French         │
│         Auto Language - ▐German          │
│          DVD Language - ▐Italian         │
│        Subtitle Display - ▐Spanish       │
│          Subtitle Off - ▐Other           │
│  ◄▐▲▼ Move              SETUP  Exit       │
└─────────────────────────────────────────┘
```

The DVD format recognizes 136 different languages. Choose Other if you want to specify a language other than those listed, then follow the on-screen display to select a language.

```
┌─────────────────────────────────────────┐
│ Audio1 A2 Video1 V2  Language  General   │
│  Subtitle Language                       │
│    List of Languages      Code (0~2)     │
│                ▲                         │
│    en:English          0  5  1  4        │
│                ▼                         │
│  ▲▼ +/−                        Return    │
│  ◄▐► Move     ENTER Select  SETUP  Exit   │
└─────────────────────────────────────────┘
```
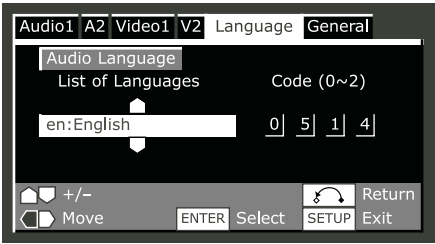
Auto Language

• Default Setting: On

When set to 'On', the player always selects the default audio language on a DVD disc (French dialog for a French movie, for example), and displays subtitles in your preferred subtitle language only if that is set to something different. In other words, movies in your native language won't have any subtitles, while foreign language movies will be shown with subtitles.

Set to 'Off' to have the system play discs strictly according to your Audio Language and Subtitle Language settings.

For Auto Language to work, the Audio Language and Subtitle Language settings must be the same– see pages 27-28.

```
┌─────────────────────────────────────────┐
│ Audio1 A2 Video1 V2  Language  General   │
│      OSD Language --- English            │
│    Audio Language --- English            │
│  Subtitle Language --- English           │
│      Auto Language   ▐On                 │
│       DVD Language - ▐Off                │
│     Subtitle Display --- On              │
│          Subtitle Off --- Selected Subtitle│
│  ◄▐▲▼ Move              SETUP  Exit       │
└─────────────────────────────────────────┘
```

DVD Language - EXPERT

• Default Setting: w/Subtitle Language

Some multilingual discs have disc menus in several languages. This setting specifies in which language the disc menus should appear. Leave on the default setting for menus to appear in the same language as your Subtitle Language– see above.
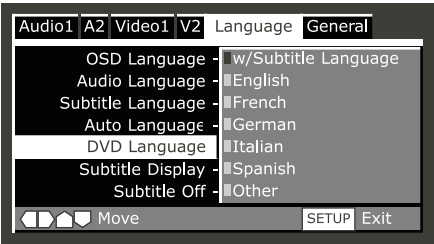
```
┌─────────────────────────────────────────┐
│ Audio1 A2 Video1 V2  Language  General   │
│       OSD Language - ▐w/Subtitle Language│
│     Audio Language - ▐English            │
│   Subtitle Language - ▐French            │
│     Auto Language - ▐German              │
│      DVD Language   ▐Italian             │
│    Subtitle Display - ▐Spanish           │
│      Subtitle Off - ▐Other               │
│  ◄▐▲▼ Move              SETUP  Exit       │
└─────────────────────────────────────────┘
```

The DVD format recognizes 136 different languages. Choose 'Other' if you want to specify a language other than those listed, then follow the on-screen display to select a language.
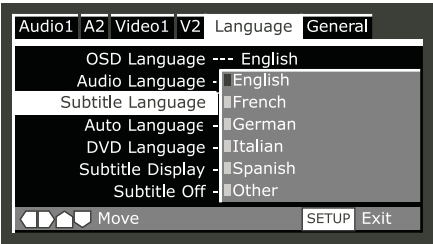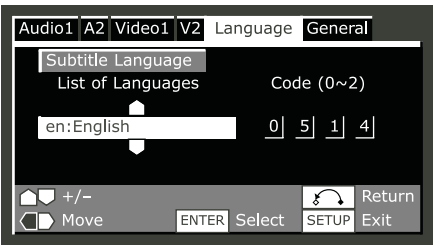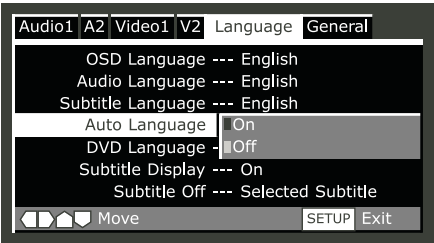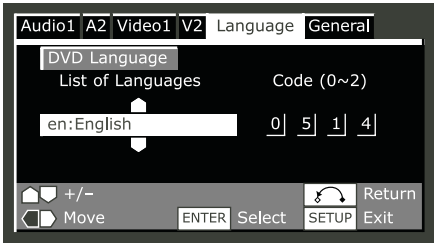

Subtitle Display - EXPERT

• Default Setting: On

When set to 'On', the player displays subtitles according to the Subtitle Language and Auto Language settings. Set to 'Off' to switch subtitles off altogether (although see Subtitle Off on this page for special cases). Set to Assist Subtitle to have the player display the extra assistive subtitles recorded on to some DVD discs.
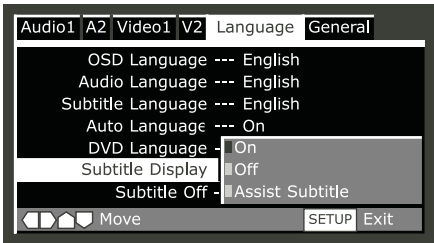
– If there is no subtitle information recorded on the disc, no subtitles are displayed even if this function is set to 'On'.

– Whether this setting is 'On' or 'Off', you can still switch subtitles (or switch them off) using the BAL/ST button.

Subtitle Off - EXPERT

• Default Setting: Selected Subtitle

Some discs display subtitles even if the Subtitle Display setting (above) is set to 'Off'. In this case, you can either have the subtitles displayed in the same language as your preferred audio language (With Audio), or in your preferred subtitle language (Selected Subtitle). If the Audio Language and Subtitle Language settings are the same then both of these choices will give the same result.
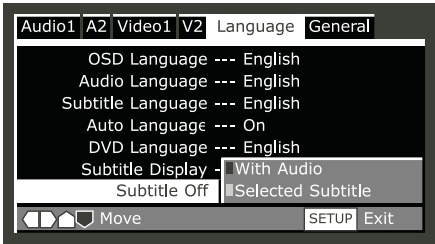

Setup Menu Mode

Set in 'Setup Menu Mode' at page 17.
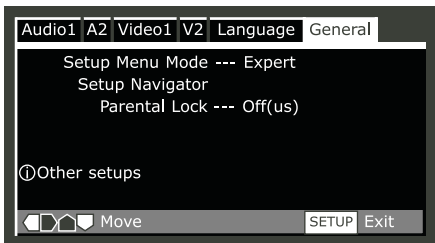
Setup Navigator

Set in 'Setup Navigator' at page 15.
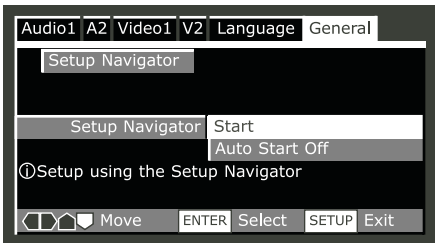
Parental Lock

- Default level: Off

- Default password: none

- Default country code: us (2119)

Some DVD Video discs feature a 'Parental Lock' level. If your player is set to a lower level than the disc, it will require you to enter a password before the disc will play. This gives you some control about what your children watch on your DVD player. Some discs also support the 'Country Code' feature. The player does not play certain scenes on these discs, depending on the country code you set. Before you can set the 'Parental Lock' level or the 'Country Code' you must register a password. As the password owner, you can change the 'Parental Lock' level or 'Country Code' whenever you like. You can also change the password.

```
Audio1 A2 Video1 V2 Language General
     Setup Menu Mode --- Expert
     Setup Navigator
     Parental Lock      Password
     Bonus Group        Level
     Auto Disc Menu -   Country Code
     Group Playback --- Single

    Move      ENTER Select   SETUP Exit
```

Registering a new password

You must register a password before you can change the Parental Lock level or enter a Country Code.

- Select 'Password'.

```
Audio1 A2 Video1 V2 Language General
  Parental Lock: Confirm Code Number

        -|  -|  -|  -|

     +/-                  Return
     Move              SETUP Exit
```

- Use the number buttons to enter a 4-digit password. It's also possible to use the cursor buttonsto set the password (up and down to set the number; left and right to change the cursor position).

- Press SELECT to register the password.

If you forget your password, you can reset the system then register a new one. See page 5 for how to reset the player.

Changing your password

To change your password, confirm your existing password then enter a new one.

- Select 'Password Change'.

- Use the number buttons to enter your existing password.

   – The numbers appear as asterisks as you enter them.

   – It's also possible to use the cursor bottons to set the password (up and down to set the number; left and right to change the cursor position).

- Press SELECT.

- Enter a new password.

- Press SELECT.

Setting/changing the Parental Lock level

• Select 'Level'.

• Use number buttons to enter your password, then press SELECT.

• Select a new level.

– Move leftward to lock more levels (more discs will require the password); rightward to unlock levels. You can't lock level 1.
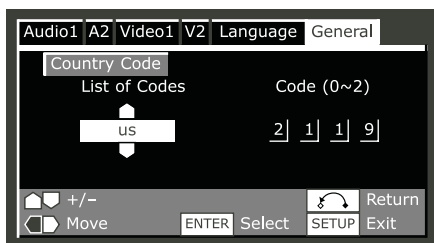
```
Audio1  A2  Video1  V2  Language  General
    Parental Lock: Level Change
            🔒 🔒 🔒 🔒 🔒 🔒 🔒 🔒
  Level   1  2  3  4  5  6  7  8   Off


                                  ↩ Return
  ◁▷ Move        SETUP Enter   SETUP Exit
```

• Press SELECT to set the new level.

Setting/changing the Country Code

• Select 'Country Code'.

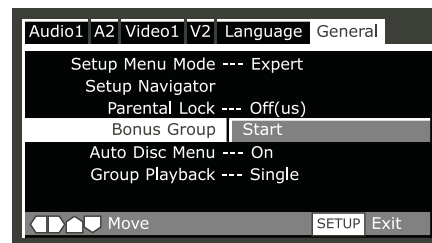• Use number buttons to enter your password, then press SELECT.

• Select a country code.

You can select the country code by letter or number.

```
Audio1  A2  Video1  V2  Language  General
  Country Code
        List of Codes       Code (0~2)
                ▲
             us          2  1  1  9
                ▼

  ▲▼ +/-                        ↩ Return
  ◁▷ Move     ENTER Select   SETUP Exit
```

• Press SELECT to set the new Country Code.

Bonus Group - EXPERT

Some DVD-Audio discs have an extra 'bonus' group that requires a 4-digit key number to access. See the disc packaging for details and the key number. When you try and play the bonus group, the key number input screen will automatically appear, although it is also available from the 'General menu'. Input the number and press SELECT.

```
Audio1  A2  Video1  V2  Language  General
      Setup Menu Mode --- Expert
      Setup Navigator
      Parental Lock --- Off(us)
      Bonus Group      Start
      Auto Disc Menu --- On
      Group Playback --- Single

  ◁▷▲▼ Move                SETUP Exit
```

• Press SELECT twice.

```
Audio1  A2  Video1  V2  Language  General
    Bonus Group: Key Number Input

              ▲
              –  –  –  –
              ▼

  ▲▼ +/-                        ↩ Return
  ◁▷ Move                    SETUP Exit
```

Auto Disc Menu - EXPERT

• Default setting: On

This specifies whether the menu (Top menu) is automatically displayed after loading a disc. Set to 'On' if you want the menu displayed automatically, or 'Off' if you don't want it displayed.


Group Playback - EXPERT

• Default setting: Single

DVD-Audio discs can have up to 9 groups of tracks. When set to 'Single', the selected group plays and then the disc stops, or returns to the menu screen. Use Group Search (page 13) to select the group to play. (You cannot use the skip or scan buttons in this mode.)

Set to 'All' if you want to play all the groups on a disc consecutively.

Even if the players is set to 'All' but you select a group to play from the disc menu, only that group will play. If you stop playback, all groups will play again when you restart playback.

PLAYING MP3'S
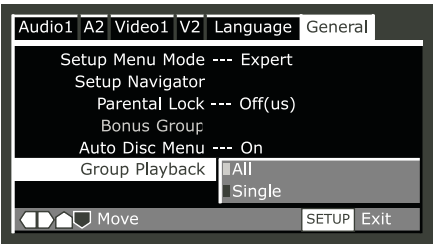
This chapter explains how to play MP3 files on CD-Rom discs.

MP3 compatibility information

- The CD-ROM must be ISO 9660 compatible.

- Mono or stereo MPEG-1 Audio Layer 3 format, 44.1 or 48kHz, fixed bit-rate. Incompatible files will not play and "UNPLAYABLE MP3 FORMAT" will be displayed.

- Not compatible with variable bit-rate (VBR) files.

- This player only plays tracks that are named with the file extension ".mp3" or ".MP3".

- This player is not compatible with multi-session discs. If you try and play a multi-session disc, only the first session will be played.

- Use CD-R or CD-RW media for recording your MP3 files. The disc must be finalized in order to play.

- Audio encoded at 128Kbps should sound close to regular audio CD quality. Although this player will play lower bit-rate MP3 tracks, the sound quality becomes noticeably worse at lower bit-rates.

- Only the first 8 characters of folder and track names (excluding the ".mp3" extension) are displayed.

- This player can recognize a maximum of 250 folders and 250 tracks. Discs containing more than 250 folders or tracks will play, but only the first 250 folders/tracks.

Caution!

- DVD-R/RW and CD-R/RW discs recorded using a personal computer or a DVD or CD recorder may not play if the disc is damaged or dirty, or if there is dirt or condensation on the player's lens.

- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)

- Unfinalized DVD-R/RW discs cannot be played.

- Unfinalized CD-R/RW discs can be played, but not all time information (playing time, etc.) will be displayed.

Displaying MP3 information

- Press DISP repeatedly during playback to display various MP3 information on-screen.

There are four information screens:

Displays when playing:

Current track number/ total number of tracks in folder

Elapsed time of current track

Play	1/5	0.07
Track	TRACK 1-1	

Track name

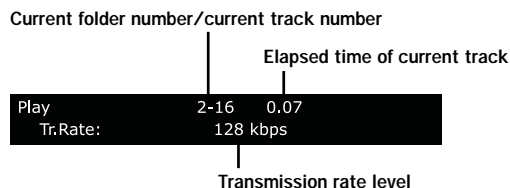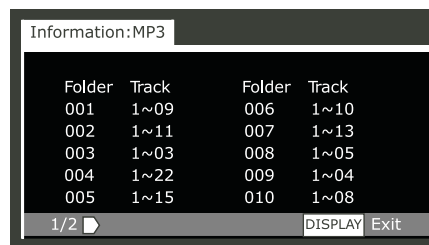**Current folder number/total number of folders**

Elapsed time of current track

Play	2/5	0.07
Folder	FOLDER-1	

Folder name

Current folder number/current track number

Elapsed time of current track

Play	1-5	0.07
Track	-3.07/	3.17

Total time of current track

Remaining time of current track

Current folder number/current track number

Elapsed time of current track

Play	2-16	0.07
Tr.Rate:	128 kbps	

Transmission rate level

Displays when stopped

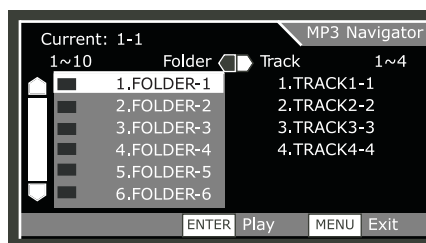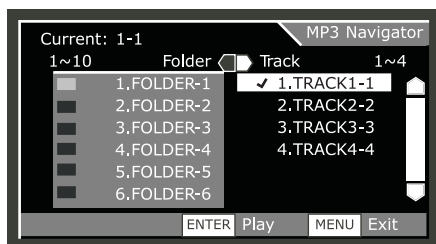| Information:MP3			
Folder	Track	Folder	Track
001	1~09	006	1~10
002	1~11	007	1~13
003	1~03	008	1~05
004	1~22	009	1~04
005	1~15	010	1~08
1/2 ▷		DISPLAY	Exit

Using the MP3 Navigator

Use the MP3 Navigator to make searching for the track(s) you want to play easier. You can also use it to add or clear tracks from the program list.

- Load a CD-ROM containing MP3 tracks.

- Press the ▤ button to enter the MP3 Navigator screen.

  – The left side of the screen shows a list of folders containing MP3 tracks.

  – If you display the MP3 Navigator when a disc is playing, the currently playing folder and track numbers are shown at the top left of the screen.

	MP3 Navigator
Current: 1-1	
1~10 Folder ◁▷ Track	1~4
1.FOLDER-1	1.TRACK1-1
2.FOLDER-2	2.TRACK2-2
3.FOLDER-3	3.TRACK3-3
4.FOLDER-4	4.TRACK4-4
5.FOLDER-5	
6.FOLDER-6	
ENTER Play	MENU Exit

– On the right side is a list of MP3 tracks from the first folder in the list.

```
Current: 1-1                    MP3 Navigator
1~10        Folder ◁▷ Track         1~4
      1.FOLDER-1    ✓ 1.TRACK1-1
      2.FOLDER-2      2.TRACK2-2
      3.FOLDER-3      3.TRACK3-3
      4.FOLDER-4      4.TRACK4-4
      5.FOLDER-5
      6.FOLDER-6
                    ENTER Play   MENU Exit
```

Navigate using the following controls:

The ◀ or ▶ buttons	Select folder and tracks from the current screen.
The ▲ or ▼ buttons	Select the previous/next of folders and tracks. To move rapidly up or down a long list of folders or tracks, press and hold one of the ▲ or ▼ buttons down.
ENTER	Play the currently selected folder or track. MP3 tracks that are unplayable on this player are automatically skipped and the display shows 'UNPLAYABLE MP3 FORMAT'.
MENU	Exit the MP3 Navigator
PROGRAM	Add the currently selected track to the program list. (Tracks in the program list are marked X) Pressing PROG repeatedly will add the track to the program list repeatedly. See 'Making a program list of MP3 tracks' below for how to use program play.

Making a program list of MP3 tracks

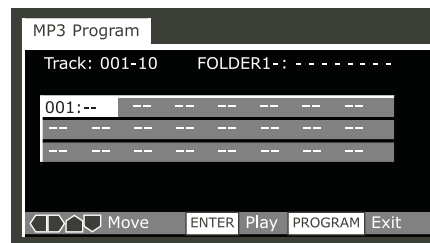• Press PROG to enter the MP3 Program screen.

If you added tracks to the program list from the 'Using the MP3 navigator' (see page 34), the tracks are displayed here.

```
MP3 Program
Folder: 001-25 - - - - - - - - : - - - - - - - -

 --   --    --   --   --   --   --   --
            --   --   --   --   --   --
            --   --   --   --   --   --
◁▭△▽ Move      ENTER Play  PROGRAM Exit
```
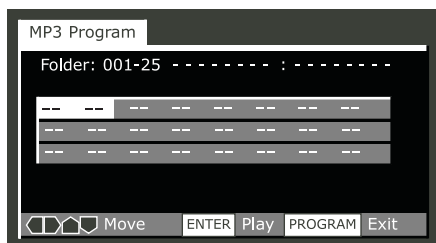
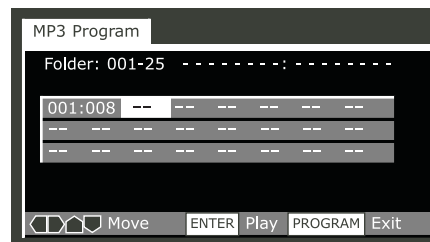From this screen you can enter folder and track numbers directly to build up a program list.

• Use the number buttons to enter a three-digit folder number.

The number of folders on the disc is displayed in the top-left of the screen. Once you've entered a valid folder number, the name of the folder appears.

```
MP3 Program
 Track: 001-10      FOLDER1-: - - - - - - - -

001:--    --   --   --   --   --   --
          --   --   --   --   --   --
          --   --   --   --   --   --
◁▭△▽ Move      ENTER Play  PROGRAM Exit
```

• Use the number buttons to enter a three-digit track number.

The number of tracks in the current folder is displayed in the topleft of the screen. Once you've entered a valid track number, the name of the track appears.

```
MP3 Program
 Folder: 001-25 - - - - - - - - : - - - - - - - -

001:008   --   --   --   --   --   --
          --   --   --   --   --   --
          --   --   --   --   --   --
◁▭△▽ Move      ENTER Play  PROGRAM Exit
```

Navigate using the following controls:

The cursor buttons	Navigate the program list.
SELECT	Start playing the program list.
PROG	Exit the MP3 Program screen.