AUDIONET

VIP

Versatile Integrated Player

User's Manual
V0.7

User's Manual

The Audionet Team congratulates you to your purchase of this excellent universal transport. For DVD and CD Audionet has engineered a formidable structure and transport system. This approach reflects the complex inherent in any transcription device. Within the VIP one can see a broad range of materials and isolation systems that exploit both compliant and resilient forms of energy dissipation. This architecture provides an almost impenetrable barrier to structural borne resonance.

The error free output transcribed from this transport is processed with standard setting digital filter technology with the asynchronous clock decoupling. This eliminates harmful clock jitter.

Picture reproduction is catered for with the same meticulous care providing for Dolby Surround, Dolby Digital and DTS encoding of the highest quality.

Whether it is CD or DVD the VIP will provide your pre amplifier with the best possible signal.

We strongly recommend reading the manual and precautions carefully first to be aware of all features your new Audionet VIP offers.

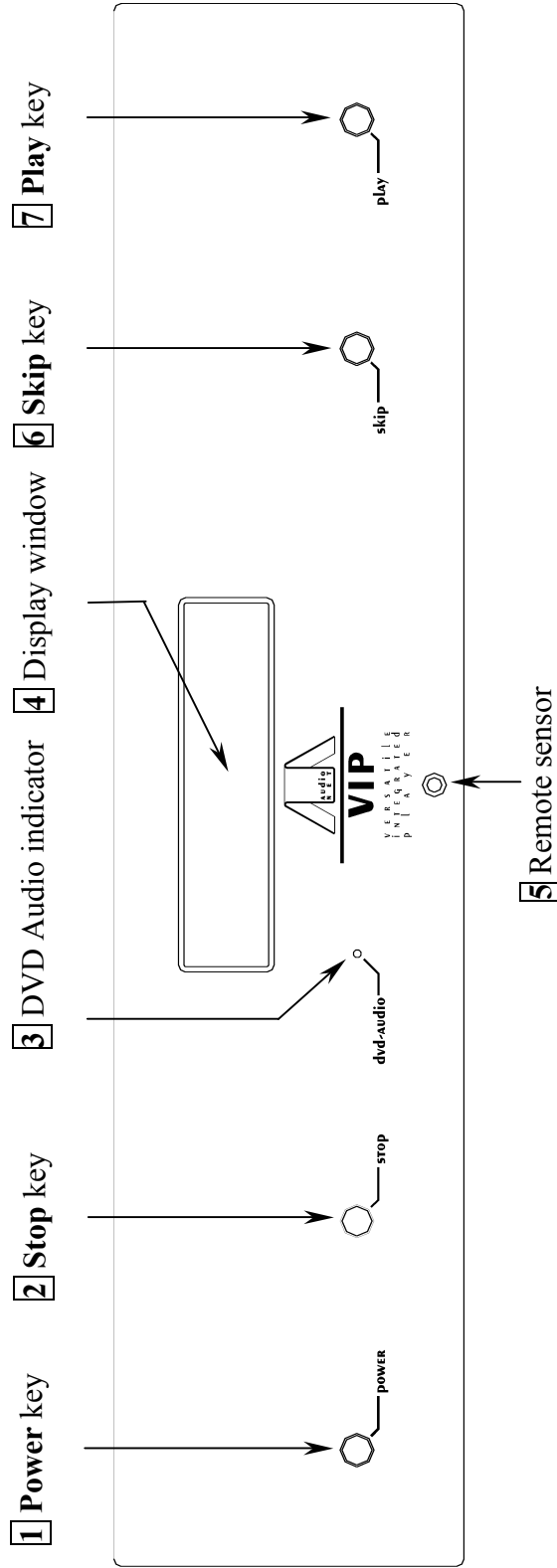**Included**   Included you will find the following:

- the universal CD and DVD transport system VIP
- one low resonance stabilizer ('Puck') made of POM (black)
- this manual (that you are currently reading)
- one standard mains cord
- one DVD AUDIO-Disc 'Hamamura Quintett - Retold'
- universal remote control COM (in separate package)

Transportation   Please transport your VIP only within the included package. Use the plastic bag to prevent scratches at housing. Never leave a CD/DVD or the stabilizer inside the unit while transporting. The sensitive mechanics could suffer damage.
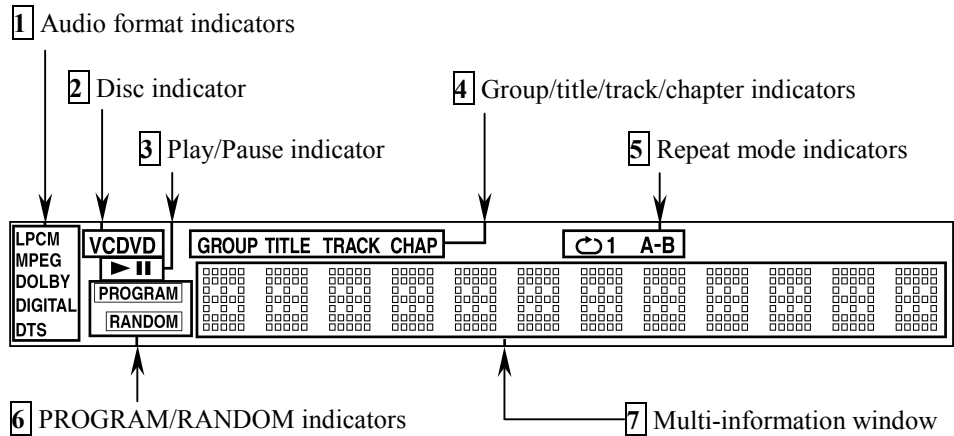
Overview front panel

Front view

1 **Power key**
Turns the unit on or off (stand by)

2 **Stop key**
Stops playback

3 **DVD Audio indicator**
Lights up when a DVD AUDIO disc is loaded

4 **Display window**
Indicates the current status of the unit

5 **Remote sensor**
Receives signals from the remote control unit

6 **Skip key**
Used to skip a chapter, title or track. Also, used for the page selection of a menu screen (for Video-CD/SVCD). Holding down skip key during playback advances playback rapidly (except MP3 disc).

7 **Play key**
Starts playback. Also, used as a SELECT key for PBC bei Video-CDs/SVCDs.

Overview of display elements

Display window

1 Audio format indicators

2 Disc indicator   4 Group/title/track/chapter indicators

3 Play/Pause indicator   5 Repeat mode indicators

```
LPCM   VCDVD   GROUP TITLE TRACK CHAP        ↺1  A-B
MPEG   ►Ⅱ
DOLBY  PROGRAM
DIGITAL RANDOM
DTS
```

6 PROGRAM/RANDOM indicators   7 Multi-information window

1   Audio format indicators
Indicates the format of audio currently being played back. See section *"Audio formats"* for details.

2   Disc indicator
Indicates the type of disc set in the unit. When a DVD AUDIO/DVD VIDEO disc is set, DVD lights up. When a Video-CD/SVCD is set, VCD lights up. When an Audio CD is set, CD lights up.

3   Play/Pause indicator
During playback ► while in Pause mode ❚❚ lights up. If disc is stopped, no indicators are illuminated.

4   Group/title/track/chapter indicators
One or more indicators illuminate according to the disc inserted.

5   Repeat mode indicators
The appropriate indicator illuminates according to the current repeat mode.
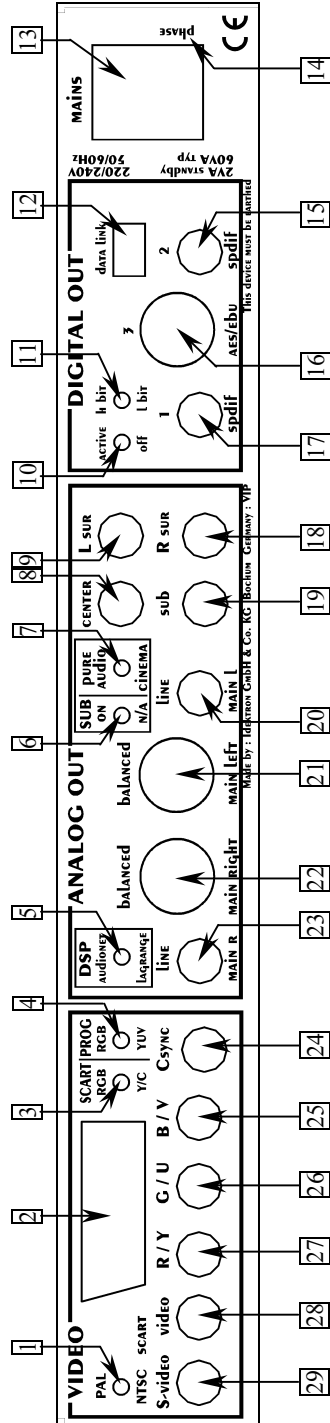
6   PROGRAM/RANDOM indicators
The appropriate indicator illuminates while the unit is in Program or Random playback mode.

7   Multi-information window
Displays the current group/title/track/chapter number(s), time and status information.

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Overview of connections

Rear view

1 Selector PAL/NTSC
2 Video output SCART
3 Selector RGB/YC for Video outputs
4 Selector RGB/YUV for Progressive Scan outputs
5 Selector Digital filter
6 Selector Subwoofer
7 Selector Bass management
8 Analog output Center
9 Analog output Left Surround
10 On/Off switch for digital outputs

11 Selector output format for digital outputs
12 Digital output "DataLink"
13 Mains input
14 Marking mains phase
15 Digital output 2 (SPDIF)
16 Digital output 3 (AES/EBU)
17 Digital output 1 (SPDIF)
18 Analog output Right Surround
19 Analog output Subwoofer
20 Analog output Main Left (Cinch)
21 Analog output Main Left (balanced)

22 Analog output Main Right (balanced)
23 Analog output Main Right (Cinch)
24 Output video sync (for Progressive Scan only)
25 Video output B/V (for Progressive Scan only)
26 Video output G/U (for Progressive Scan only)
27 Video output R/Y (for Progressive Scan only)
28 Video output Composite (CVBS)
29 Video output S-Video (Y/C)

For detailed description of connections and options please refer to Appendix A, *"Connections and options on the rear panel"*.

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Placement and connections

Placement

Please choose a level and dry place. It is recommended to place the VIP into a high quality rack or onto a stable table. Do not expose the unit to vibrations and direct sunlight. Do not place the unit in close range to heat sources like radiators.

Mains connection

The mains input $\boxed{13}$ is on the back panel of the VIP. To connect the unit to mains use the included mains cord. If you want to use a different power cord make sure that it meets the specifications for your home country.

WARNING:

The electrical specifications at the back must meet the specifications of your home country.

The VIP is a Class I unit and must be earthed. Please ensure a stable earth connection. "Phase" ("hot pin") is marked at the back panel ("phase") $\boxed{14}$.

Only in case of extended absence (like vacations) or if massive trouble on mains power is to be expected you should disconnect the unit from mains. To disconnect the unit from mains pull the mains plug.

Orientation of mains plug

The correct polarization of mains is important for reasons of audio clarity and stability. Please connect the mains cord that the hot pin of the wall outlet is connected to the pin of mains input $\boxed{13}$ marked "phase" $\boxed{14}$ on the back panel of the unit.

Basic operations

Switching on and off

Use ᴘᴏᴡᴇʀ key on front panel to switch on the unit. The display on the front panel shows first HELLO for a short time and then LOADING.

If the disc drawer on top of the unit is open, the display shows OPEN.

If you switch on the unit while the disc drawer is closed and no disc inserted, a short time after switching on the display will read NO DISC.

Switch off the unit by pressing the ᴘᴏᴡᴇʀ key on the front panel. The display will go dark after a short time. Now the unit is in stand by mode.

Inserting and removing discs

Open the disc drawer on top of the unit by pushing it to the back using the handle. Put a disc onto the spindle with its printed side facing up. Fix disc with included stabilizer ("Puck"). Please make sure that the stabilizer gives the disc a centred and level position.

Close the drawer now. The display shows READING. After a short moment the disc type is indicated (*see section "About discs"*). For further information about playback of discs please refer to section *"Basic playback"* and following.

Stop playback by using button ■ at front panel or on the remote control before you open the drawer. Please wait until disc stopped turning completely before lifting off the stabilizer to remove the disc.

Note:

- If you open the drawer during playback, the unit is switched off immediately for safety reasons. Please wait until disc stopped turning completely before removing the disc or switching on again the unit using the ᴘᴏᴡᴇʀ button.

- The drawer always has to be closed completely in order to playback a disc.

- Please always use the provided stabilizer for fixing the disc during playback. Otherwise the disc and the player may suffer damage.

- Do not use any non-standard shape discs available on the market because it may damage the unit.

- Please check the copyright laws in your country before recording from DVD AUDIO, DVD VIDEO, Audio CD, Video CD, SVCD and MP3 discs. Recording of copyrighted material may infringe copyright laws.

- The DVD VIDEO disc is protected by the copyguard system. When you connect the unit to your VCR directly, the copyguard system activates and picture may not be played back correctly.

- If you insert a DVD VIDEO disc, the unit whose region code does not match the unit, REGION CODE ERROR! is shown in the DVD opening display.

- With some DVD VIDEO discs, the unit starts playback automatically after inserting the disc and closing the drawer.

Remote control

All functions of the VIP can be controlled using the Audionet System Remote Control COM. Furthermore it is possible to control up to 9 other units with the COM.

All keys of the COM relevant for controlling the VIP are explained in detail in the following. While in the main menu of the COM press key "VIP" to prepare the COM to control the VIP.

Please refer to the separate manual provided with the COM for further and more detailed information about using and programming the COM.
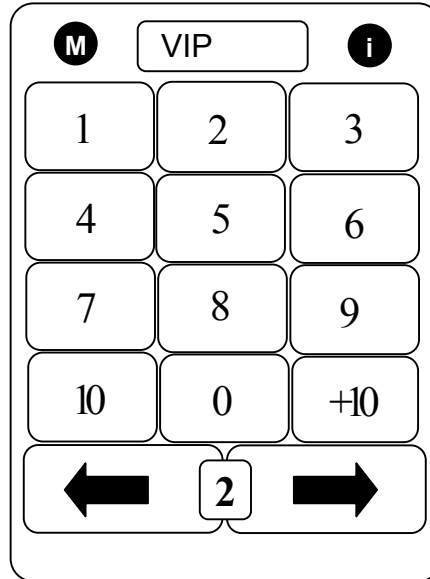
Cursor key
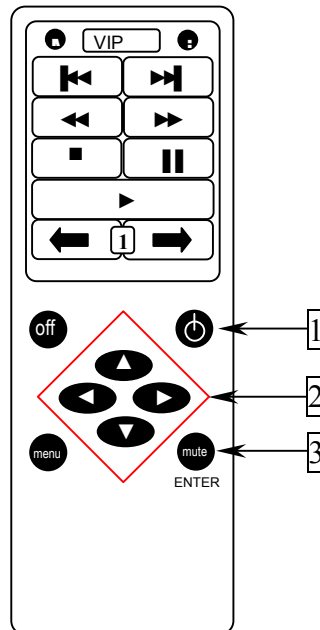
1   **Power key** to switch on/off the unit, same function as POWER key on the front panel.

2   **Cursor** to navigate through screen and disc menus,
   ▲ moves ↘ up
   ▼ moves ↘ down
   ◄ moves ↘ left
   ► moves ↘ right.

3   **ENTER key**, for activating functions or acknowledging user entries.
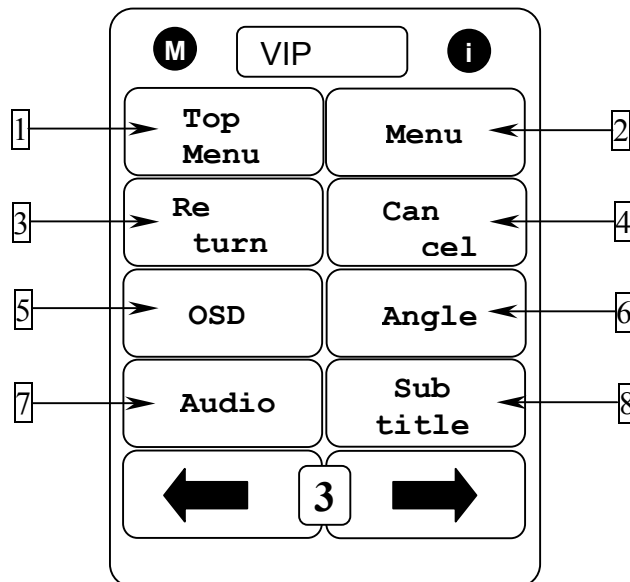
**VIP-Menu
Screen 1**
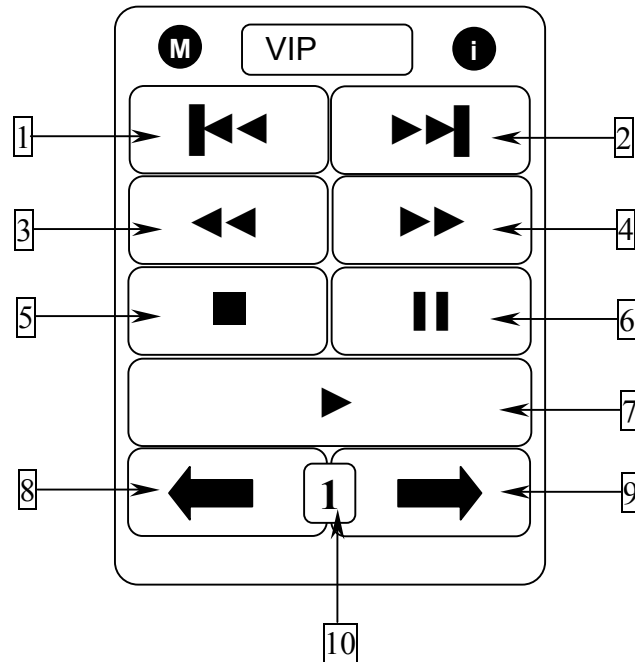
1 |◄◄/**Previous key**, skips back a chapter, title, group or track. Also used for the page selection of a menu screen (for DVD VIDEO / DVD AUDIO / Video CD / SVCD). Keeping this key pressed during playback reverses playback rapidly (except MP3 disc).

2   ►►|/**Next key**, Skips forward a chapter, title, group or track. Also used for the page selection of a menu screen (for DVD VIDEO / DVD AUDIO / Video CD / SVCD). Keeping this key pressed during playback advances playback rapidly (except MP3 disc).

3   ◄◄/**Cue key**, pressing this key during playback reverses playback rapidly (except MP3 discs). Pressing this key while a DVD VIDEO disc is paused reverses playback slowly.

4   ►►/**Fast forward key**, pressing this key during playback advances playback rapidly (except MP 3 disc). Pressing this key while a DVD VIDEO, Video VD or SVCD disc is paused advances playback slowly.

5   ■/**Stop key**, stops playback. Also used to clear all the programmed selection for the program play.

6   ❙❙/**Pause key**, pauses playback. Also used to display nine continuous still pictures (STROBE function). Pressing this key while paused advances the still picture frame-by-frame.

7   ►/**Play key**, starts playback. Also used as a SELECT key for PBC of Video CDs/SVCDs.

8   Skips back to the previous screen of COM (refer to user's manual COM).

9   Advances to the next screen of COM (refer to user's manual COM).

10   Number of current screen of COM.

**VIP-Menu
Screen 2**

```
┌─────────────────────────┐
│  (M)   ┌────────┐   (i)  │
│        │  VIP   │        │
│        └────────┘        │
│  ┌────┐  ┌────┐  ┌────┐  │
│  │ 1  │  │ 2  │  │ 3  │  │
│  └────┘  └────┘  └────┘  │
│  ┌────┐  ┌────┐  ┌────┐  │
│  │ 4  │  │ 5  │  │ 6  │  │
│  └────┘  └────┘  └────┘  │
│  ┌────┐  ┌────┐  ┌────┐  │
│  │ 7  │  │ 8  │  │ 9  │  │
│  └────┘  └────┘  └────┘  │
│  ┌────┐  ┌────┐  ┌────┐  │
│  │ 10 │  │ 0  │  │+10 │  │
│  └────┘  └────┘  └────┘  │
│  ┌──────┐ ┌─┐ ┌──────┐   │
│  │ ←    │ │2│ │   →  │   │
│  └──────┘ └─┘ └──────┘   │
└─────────────────────────┘
```

Screen menu 2 comprises the numeric keys. For usage of numeric keys please refer to section *"How to use numeric keys"*.

**VIP-Menu
Screen 3**

```
┌─────────────────────────────┐
│   (M)   ┌────────┐   (i)     │
│         │  VIP   │           │
│         └────────┘           │
│ 1┌─────────┐  ┌─────────┐2   │
│  │  Top    │  │  Menu   │    │
│  │  Menu   │  │         │    │
│  └─────────┘  └─────────┘    │
│ 3┌─────────┐  ┌─────────┐4   │
│  │  Re     │  │  Can    │    │
│  │  turn   │  │    cel  │    │
│  └─────────┘  └─────────┘    │
│ 5┌─────────┐  ┌─────────┐6   │
│  │  OSD    │  │  Angle  │    │
│  └─────────┘  └─────────┘    │
│ 7┌─────────┐  ┌─────────┐8   │
│  │  Audio  │  │  Sub    │    │
│  │         │  │  title  │    │
│  └─────────┘  └─────────┘    │
│  ┌──────┐ ┌─┐ ┌──────┐       │
│  │ ←    │ │3│ │   →  │       │
│  └──────┘ └─┘ └──────┘       │
└─────────────────────────────┘
```

1   **`Top Menu key`**, displays the top menu of a DVD AUDIO Disc or the title menu of a DVD VIDEO disc on the TV screen.

2   **`Menu key`**, displays a DVD menu on the TV screen.

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3 **Return key**, returns to the previous menu (for Video CD/SVCD).

4 **Cancel key**, cancels the last selection of program.

5 **OSD/On-Screen Menu key**, brings up an appropriate on-screen display for controlling advanced functions for the current disc on the TV screen.

6 **Angle key**, changes camera angles during playback of a DVD VIDEO disc containing multiple angles.

7 **Audio select key**, selects the audio (for DVD AUDIO / DVD VIDEO / Video CD/ SVCD). By pressing the key for more than one second during playback, the current sampling frequency is shown in the display window for a while.

8 **Subtitle select key**, used to display the subtitle selection display on the TV screen, as well as used to turn the subtitle on or off (for DVD VIDEO/SVCD).

VIP-Menu Screen 4
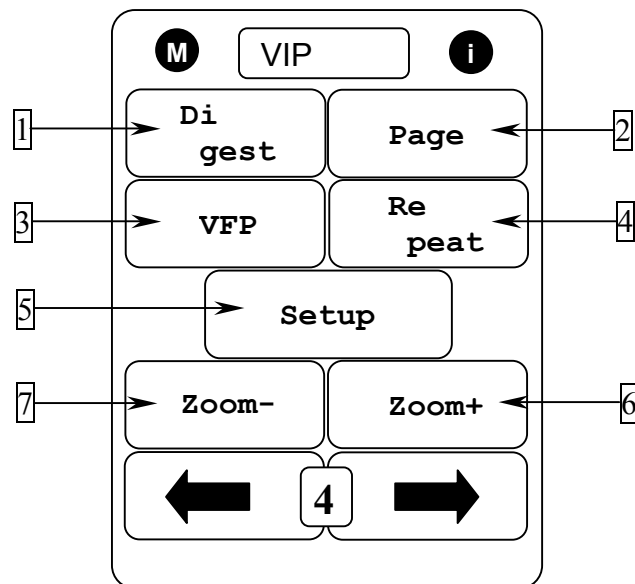
1 **Digest key**, displays beginning scenes of each title, chapter or track on the TV screen (for DVD VIDEO / Video CD / SVCD).

2 **Page key**, turns the page of still picture for DVD AUDIO disc.

3 **VFP/Video Fine Processor key**, pressing this key brings up the VFP (Video Fine Processor) window in which you can select or adjust the picture character.

4 **Repeat key**, selects the repeat mode.

5 **Setup key**, brings up the preferences on-screen display on the TV screen.

6 **Zoom+ key**, zooms in the picture (for DVD VIDEO/Video CD/SVCD).

7 **Zoom- key**, zooms out the picture (for DVD VIDEO/Video CD/SVCD).

How to use numeric keys

The numeric keys of the COM (menu screen 2) are used to select a track/title/group. Also, they are used to enter a disc time or chapter number.

To select a track / title / group number

To select a number between 1 and 10 press corresponding key for the number on remote control COM.

To select a number higher than 10 use +10 key. With every use of +10 key 10 is added to selected number. After setting the second digit press corresponding numeric key for selecting the first digit.

Examples:

To select:

- 5 press   5.
- 10 press   10.
- 14 press   +10 → 4.
- 27 press   +10 → +10 → 7.
- 58 press   +10 → +10 → +10 → +10 → +10 → 8

To enter a time or chapter number

The method for entering a time for Time search or chapter number for Chapter search is different from above. Please refer to corresponding sections in this manual for details.

Note:

- There is another method for selecting a track or group of an MP3 disc. For further information please see section *"MP3 disc playback"*.

Operational principles

For this manual the following conventions of presentation are valid:

- Keys on remote control COM: ENTER or Menu
- Item of on-screen menu: [TRACK SEARCH]
- Cursor for on-screen menu: ↳
- Cursor keys to move cursor on screen: ▲/▼/◄/►
- On-screen menu message: GO TO
- Message in display window on front panel: READING

How to use on-screen displays

You can set preferences and perform advanced playback functions via various on-screen displays. On-screen displays are operated as described in the following:

- Move ↳ with the cursor keys ▲/▼/◄/► to select items you want to work with.

- With an item like ◄ 1/3 ► you can change the setting by using the cursor keys ◄/► when ↳ is on the item.

- Elements of type REPEAT are used by positioning ↳ over them and pressing ENTER.

- In the message box, the operation to be performed is displayed according to the item pointed by ↳.

- Numbers are entered using the numeric keys.

- Some functions become effective by pressing ENTER after specifying necessary entries.

Note:

- Through out this manual examples for displayed messages and screens are in the same language as this manual. In case you should have selected a different language for the screen menus all messages will be presented in the selected language. To change the language refer to section *"On Screen Language"*.

About discs

Playable disc types

Playable and non-playable disc types are as follows:

DVD AUDIO	Video-CD	
DVD AUDIO™	**Video CD**	COMPACT disc DIGITAL VIDEO
DVD VIDEO	SVCD	Audio-CD
DVD VIDEO™	VIDEO CD / COMPACT disc SUPER VIDEO	COMPACT disc DIGITAL AUDIO

The DVD Logo is a trademark.

CD-R and CD-RW discs recorded with the Audio CD or MP3 format can be played back, though some of them may not be played back because of the disc characteristics or recording conditions.

DVD VIDEO players and DVD VIDEO discs have their own Region Code numbers. This unit can playback DVD VIDEO discs whose Region Code numbers include the unit's Region Code. Discs have one or more Region Code numbers, which are indicated on the cover.

Example of playable DVD discs when the unit's Region Code is "2":

ALL   2   2 5   2 3 4 5   1 2 3 4 5 6

The VIP can playback a disc recorded with either the NTSC or PAL format and output a video signal with the format set by the NTSC/PAL selector on the rear panel (i.e. you can enjoy an NTSC disc with the PAL television by simply setting the selector to PAL, or vice versa). Refer to section *"Appendix A: Connections and options on the rear panel"*.

Non-playable disc types

The following disc types are non-playable by the VIP:

DVD-ROM, DVD-RAM, DVD-R, DVD-RW, CD-ROM, PHOTO CD, CD-EXTRA, CD-G, CD-TEXT

Playing back discs listed as "Non-playable discs" above may generate noise and damage speakers.

The VIP can play back audio recorded in CD-G, CD-EXTRA and CD-TEXT discs.
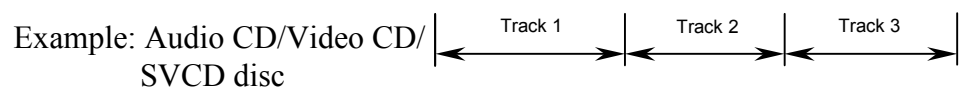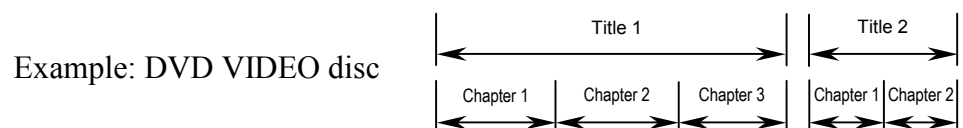
Audio formats   There are some formats of audio recorded on discs as shown in the table below. The associated indicator lights up in the display window when playing back a disc.

Audio format	Indicator
Linear PCM	LPCM*
MPEG Multichannel	MPEG
Dolby Digital	DOLBY DIGITAL
DTS (Digital Theater Systems)	DTS

*) When playing back a DVD AUDIO disc recorded by MLP (Meridian Lossless Packing: a lossless audio compression system that can completely recreate the PCM signal), the signal is recognized as the linear PCM signal, however, no indicator lights up in the display window.

Disc structure   A DVD VIDEO disc is comprised of "titles" and each title may be divided into some "chapters". For example, if a DVD VIDEO disc contains some movies, each movie may have its own title number, and each movie may be divided into some chapters. In a DVD VIDEO KARAOKE disc, each song usually has its own title number and does not have chapters. A DVD AUDIO disc is comprised of "groups", and each group is comprised of "tracks". Some DVD AUDIO discs also contain a "bonus group" that can be played back by entering the "key number" (a kind of password). Usually the contents of a "bonus group" are not opened to the public. Note that most DVD AUDIO discs include other information in addition to audio, such as still pictures, movies and text. An Audio CD, Video CD or SVCD is simply comprised of "tracks".

Example: DVD VIDEO disc

Title 1 | Title 2
Chapter 1 | Chapter 2 | Chapter 3 | Chapter 1 | Chapter 2

Example: DVD AUDIO disc

Group 1 | Group 2
Track 1 | Track 2 | Track 3 | Track 1 | Track 2

Example: Audio CD/Video CD/ SVCD disc

Track 1 | Track 2 | Track 3

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Basic playback

Note that this section describes basic operations for playback of DVD AUDIO, DVD VIDEO, Audio CD, Video CD, SVCD discs. For MP3 disc playback, see the separate section *"MP3 disc playback"*.

The keys for controlling the basic playback are on the front panel of the unit or on the remote control COM, screen menu 1.

To start playback

Press **plᴀy** key ⑦ on front panel or ► on the remote control to start playback. The VIP plays back the disc from the beginning.

Notes:

- To start playback the drawer has to be closed.

- When the resume point is memorized, pressing **plᴀy** key (►) starts playback from that point instead of the beginning (*see section "Resume playback"*).

- During playback, the display window shows title/chapter or track number being played.

- With Video CD/SVCD discs with PBC control or some DVD VIDEO discs, the menu display may appear on the TV screen after starting playback. In such a case, select an item to be played back from the menu (see section *"Playing from a specific position on a disc"*).

- With some DVD VIDEO discs, the VIP starts playback automatically after inserting the disc and closing the drawer.

To stop playback completely

Press key ■ on the remote control (screen menu 1) to stop playback. If you open the drawer during playback the disc stops immediately.

To stop playback temporarily

Press key ❚❚ on the remote control. The VIP pauses playback. To resume playback press ►.

To advance or reverse playback rapidly while monitoring

This function is only available during playback.

Press ►► for fast forward playback, press ◄◄ for rapid reverse playback. Each press of ◄◄ or ►► increases the playback speed. You can select the speed among 2x, 5x, 20x and 60x the normal speed.

Pressing ► returns to normal playback speed.

If you hold down the **skip** key on the front panel, the disc is played back at 4x the normal speed. Release **skip** key to return to normal playback.

To locate the beginning of the scene or song

During playback, press ◄◄ key to locate the beginning of the current chapter, title or track. Press ►►▌ key to locate the beginning of the next chapter, title or track.

Notes:

- When you play a Video CD/SVCD disc with PBC function or a DVD VIDEO disc, the unit may locate a different place, but it will generally locate the beginning of the title, chapter or track.

To resume playback

The VIP can memorize the position on a disc where you interrupted playback, and resume playback from that position.

To save the position of interruption during playback press ■. The unit memorizes now this position.

To resume playback at memorized position press ►.

To clear the resume position memory carry out one of the following:

- open drawer
- press ■ while stopped
- Turn off unit with **POWER** key (on form panel or remote control).

Notes:

- The resume function does not work with Audio CD and MP3 discs.
- In case of a Video CD/SVCD disc with PBC function, the unit may resume playback from a point slightly earlier or later than the resume point you stored.

Advanced operations

Function	DVD VIDEO	DVD AUDIO	Audio CD	Video CD
Playing from a specific position on a disc				
To locate a desired scene from the DVD menu	●	●		
To locate a desired scene from the menu of Video CD/SVCD with PBC				●
To locate a desired selection using the numeric keys	●	●	●	●
To locate a desired selection using ◄◄ or ►►	●	●	●	●
To specify a desired chapter/track from the on-screen display [CHAP.-SEARCH/TRACK SEARCH]	●	●*		
To locate a desired position in the current title or track [TIME SEARCH]	●		●	●
To locate a desired scene from the display [DIGEST]	●	●		●
Special picture playback				
To advance a still picture frame-by-frame	●			●
To display continuous still picture [STROBE]	●			●
To playback in slow-motion [SLOW]	●			●
To zoom in/out [ZOOM]	●			●
Changing the playback order				
To playback in desired order [PROGRAMM]		●	●	●
To playback in random order [RANDOM]		●	●	●
Repeat playback				
To repeat the current selection or all tracks [REPEAT]	●	●		●
To repeat a desired part [A-B REPEAT]	●	●		●
Selecting a scene angle of DVD VIDEO				
To select a scene angle from the normal screen [ANGLE]	●			
To select a scene angle from the angle list display [ANGLE]	●			
Changing the language and sound				
To select the subtitle language [SUBTITLE]	●	●*		
To change the audio language or sound [AUDIO]	●	●		●
Miscellaneous functions				
To adjust the picture character [VFP]	●	●*		●
To check the disc time [TIME SELECT]		●	●	●
To select a still picture on a DVD AUDIO disc [PAGE]		●		
To playback a bonus group of a DVD AUDIO disc		●		
Checking the sampling frequency	●	●	●	●

*) corresponding function is effective to non-audio information (such as movies, still pictures and text data) if recorded on a DVD AUDIO disc.

Playing from a specific position on a disc

You can play a disc from the selected track, title or chapter, or from the specified time.

To locate a scene from the DVD menu

DVD discs generally have their own menus, which show the disc contents. These menus contain various items such as titles of a movie, names of songs, or artist information, and display them on the TV screen. You can locate a desired scene by using the menu.

Press key `Top Menu` or `Menu` on screen 3 of the remote control. The corresponding menu appears on the TV screen.

Note:

- Normally, a DVD VIDEO disc, which contains more than one title, may have a "title" menu, which lists the titles. Similarly, a DVD AUDIO disc, which contains more than one group, may have a "top" menu, which lists the groups. In such a case, the menu appears on the TV screen by pressing the `Top Menu` key. Some DVD discs may also have a different menu, which appears by pressing the `Menu` key. See the instructions of each DVD disc for its particular menu.

Use cursor keys ▲/►/▼/◄ on remote control to select desired item of DVD menus and press `ENTER`. The unit starts playback of selected item.

Notes:

- With some discs, you can also select items by entering the corresponding number using the numeric keys, which may cause the unit to automatically start playback.
- The key `Menu` does not work while stopped.
- When ⊘ appears on the TV screen after pressing key `Top Menu` or `Menu`, the disc does not have a menu listing the titles or groups or have no menu. Or the corresponding function is not supported or blocked by the disc itself (e.g. during copyright messages).

To locate a scene from the menu of a Video CD with PBC

Some Video CD/SVCD discs support the PBC function. PBC is an abbreviation of "PlayBack Control". A Video CD/SVCD disc recorded with PBC has its own menus, such as a list of the songs of the disc. You can locate a specific scene by using the menu.

When a Video CD/SVCD disc is stopped press ► to activate the PBC function. A disc menu appears on the TV screen. PBC is indicated in the display window on the front panel.

Use the numeric keys to select the desired item. The unit starts playback of selected item. You can return to the menu by pressing the Return key.

When "NEXT" or "PREVIOUS" appears on the TV screen, then press ►►| to advance to the next page or press |◄◄ to go back to the previous page. The method of operation is different depending on the disc.

Notes:

- To activate the PBC function when a PBC-compatible Video CD/SVCD disc is being played back without PBC function, press key ■ then press key ►.

- A different method of activating the PBC function is:
  Press key OSD. Use cursor keys ▲/▼ to move ↘ to [PBC CALL], then press ENTER.

- If you want to playback a PBC-compatible Video CD/SVCD disc without activating the PBC function, start playback by using the numeric keys instead of ►. For further information please refer to next section.

To locate a desired selection using the numeric keys

You can locate the desired title or chapter (DVD VIDEO), group or track (for DVD AUDIO), or track (for Audio CD/Video CD/SVCD) from which the unit starts playback.

Use this function while playback or while disc is stopped. In case of a Video CD disc the PBC function has to be inactive.

Use numeric keys to specify desired number. The VIP starts playback from the beginning of the selection. Depending on the disc type and unit status, what is specified differs:

Unit status	Disc type	specified
While stopped	DVD VIDEO	Title or chapter (*1)
	DVD AUDIO	Group or track (*2)
	Audio-CD/Video-CD/SVCD	track
During playback	DVD VIDEO	chapter
	DVD AUDIO	track
	Audio-CD/Video-CD/SVCD	track

*1 If a disc contains more than one title, a title is specified. If a disc contains only one title, a chapter is specified.

*2 If a disc contains more than one group, a group is specified. If a disc contains only one group, a track is specified.

Notes:

- The selected title, group or track number appears in the display window on the front panel.

- During DVD VIDEO or DVD AUDIO playback, if a menu is shown on the TV screen, the numeric keys may be used for selecting an item in the menu.

- When ⊘ appears on the TV screen the title or track you have selected is not contained in the disc.

- This function does not work during Video CD/SVCD playback with PBC function.

To locate a desired selection using |◄◄ or ►►|

You can locate the beginning of a chapter (DVD VIDEO) or track (DVD AUDIO / Audio-CD / Video-CD / SVCD) by using the keys |◄◄ or ►►|. The function is available during playback (with DVD AUDIO/Audio-CD also while disc stopped).

With a DVD AUDIO, Audio CD, Video CD or SVCD, pressing the button skips a track. With a DVD VIDEO disc, pressing the key skips a chapter or a title depending on the disc configuration. The selection number appears in the display on the front panel.

To skip forward or back tracks/chapters, press ►►| or |◄◄ As many times required.

Notes:

- This function may not work with some DVD VIDEO discs.

- This function does not work during Video CD/SVCD playback with PBC function.

To specify a desired chapter/track from the on-screen [CHAP.-SEARCH / TRACK SEARCH]

When playing back pictures of a DVD VIDEO or DVD AUDIO disc, you can specify the chapter/Track number to be played from the on-screen display.

Press key OSD on remote control (page 3). The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ↘ to [CHAP.SEARCH] or [TRACK SEARCH], then press ENTER. "GO TO CHAPTER=" or "GO TO TRACK" appears in the message area. The color of [CHAP.SEARCH] or [TRACK SEARCH] changes. Use numeric keys to enter the desired chapter/track number. The specified number appears in the message area. Press ENTER to start playback from selected chapter/track.

Examples: for chapter number 6 press 6 → ENTER.

   for chapter number 46 press 4 → 6 → ENTER

Notes:

- The 10 and +10 keys are not used in this function.

- You can also locate a desired chapter directly by specifying the chapter or track number using the numeric keys during playback (except when a menu is shown).

- When the chapter or track number is incorrect, overwrite the incorrect number with correct number before you press ENTER.

- When ⃠ is displayed on the TV screen after pressing ENTER, the chapter or track you have selected is not contained in the disc, or chapter/track search does not work on the disc.

- To return to regular display press key OSD.

- You cannot use this function with a DVD AUDIO disc that does not contain any picture.

To locate a desired position in the current title or track [TIME SEARCH]

You can play a disc from the desired position by specifying the elapsed time from the beginning of the current title (for DVD VIDEO), the current group (for DVD AUDIO) or the disc (for Audio CD / Video CD / SVCD) using TIME SEARCH function.

Note:

- Some DVD VIDEO discs do not contain time information, and the TIME SEARCH function cannot be used.

During playback press key OSD. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ↳ to [TIME SEARCH], then press ENTER. GOTO appears in the message area. Use numeric keys to enter time. The specified time appears in the message area. Press ENTER, and the unit starts playback from the specified time.

Example: for time 2 hrs : 34 min : 00 sec

press 2 → 3 → 4 → ENTER.

Notes:

- When you make a mistake move the cursor to the incorrect value, then press key ◄ and enter the correct number.
- The TIME SEARCH function is available while stopped for DVD AUDIO/Audio CD discs.
- While a DVD AUDIO disc is stopped, you can specify the elapsed time from the beginning of group 1.
- Keys 10 and +10 are not used with this function.
- You can specify the time in hour/minute/second format for DVD VIDEO/DVD AUDIO discs, and in minute/second format for Audio and Video CD/SVCD discs.
- When ⊘ appears on the TV screen after pressing ENTER, you have selected a time that is not contained on the disc, or the TIME SEARCH function does not work on the disc.
- The TIME SEARCH function does not work during playback of a Video CD/SVCD disc with activated PBC function.
- The TIME SEARCH function cannot be used during program playback.
- Press OSD to return to regular display.

To locate a desired scene from the display [DIGEST]

The VIP can display the opening scene of each title or chapter on a DVD VIDEO or each track of Video CD/SVCD disc. You can select the desired scene from those displayed on the TV screen.

This function is available during playback and while stopped (for Video CD/SVCD disc with PBC function disabled only).

Press key `Digest` on the remote control. Up to nine opening scenes are displayed.

During DVD VIDEO disc playback the opening scene of each chapter in the current title appears on the TV screen.

When a Video CD/SVCD disc is loaded the opening scene of each track appears on the TV screen (if PBC function is inactive).

Use cursor keys ▲/▼/◄/► to move ↘ to select the desired scene. If there are more than 9 scenes, the digest screen will have more than one page. In this case, pressing ►►| advances to the next page, while pressing |◄◄ returns to the previous page.

Press ENTER, to playback selected scene.

Notes:

- When the lower right scene is selected, pressing cursor key ► advances to the next page if available. Similarly, when the upper left scene is selected, pressing cursor key ◄ returns to the previous page, if available.

- Depending on discs, it may take some time until all scenes of the current page appear on the TV screen. If you want to turn the page, you do not have to wait to press |◄◄ or ►►| until all scenes appear.

Special picture playback

The VIP provides special picture playback functions for DVD VIDEO / Video CD / SVCD discs including Frame-by-frame, Strobe and Zoom.

To advance a still picture frame by frame

Press key ▐▐ to enter pause mode. Each time you press ▐▐ , the still picture advances to the next frame.

Pressing ► returns to normal playback.

To display continuous still pictures [STROBE]

During playback press key ▐▐ at the point you want to view as continuous photographs. The unit pauses playback. Press and hold ▐▐ for more than 1 second. Nine continuous still pictures appear on the TV screen.

Notes:

- Pressing ▐▐ when the nine still pictures are shown will advance pictures frame by frame.

- To cancel STROBE play press and hold ▐▐ for longer than 1 second.

- If you press and hold ▐▐ for more than 1 second during playback, nine still pictures also appear but they advance in normal playback speed.

- The sound is muted during STROBE playback.

To playback in slow motion [SLOW]

During playback press ▐▐ , then use ►► to play forward slow motion and press ◄◄ for reverse slow motion (for DVD VIDEO discs only). First, the unit plays the slowest speed, and each time you press the key, the playback speed increases.

Press ► to return to normal playback. To pause slow-motion playback press ▐▐ .

Notes:

- The sound is muted during slow-motion playback.

- Reverse slow-motion playback is not possible for a Video CD/SVCD.

To zoom in/out [ZOOM]   This function is available during playback and while stopped.

Press key Zoom+ to zoom in. Each time you press the key, the magnification is doubled (up to x 1024).

Press key Zoom− to zoom out. Each time you press the key, the magnification is halved (down to x 1/8).

At the top-left of the screen, the information for the current magnification appears, as well as the zoomed-in position of the scene that can be moved by using the cursor keys ▲/▼/◄/►.

To return to normal playback press ENTER.

Note:

- While zoomed, the picture may look coarse.

Changing the playback order

You can play tracks on a DVD AUDIO, Audio CD or SVCD in the desired order or in random order.

To playback in desired order [PROGRAM]

By programming tracks, you can play up to 24 tracks in any order. You may program the same track more than once.

While stopped press key OSD on the remote control. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ✎ to [PROGRAM] and press ENTER. The color of [PROGRAM] changes. The program table appears on the on-screen display. The display on the front panel reads PROGRAM.

For Audio CD/Video CD/SVCD:

Specify tracks in the desired order using the numeric keys. See section *"How to use numeric keys"* for details about using numeric keys.

For DVD AUDIO:

Specify selections in the desired order by group and track numbers using the numeric keys. For each program step specify a group first, then specify a track.

For example, to specify "track 14 in group 2", press keys: 2 → +10 → 4.

If you specify a wrong selection press key Cancel to erase last programmed selection. To clear complete program press ■.

Press ► to start program play. When all programmed tracks have finished playback, the unit stops but the program remains.

Note:

- During program playback, pressing ►►| skips to the next selection of the program. Pressing |◄◄ returns to the beginning of current selection.

To quit program playback press ENTER when ✎ points [PROGRAM]. [PROGRAM] returns to its original color. When playing back a Video CD /SVCD, you have to press ■ and then press OSD to bring up the on-screen display.

To clear the program while stopped and the on-screen display is shown on the TV screen, move ✎ to [PROGRAM] and then press ■. All the programmed tracks are erased.

Notes:

- If you are going to program a track in the bonus group of a DVD AUDIO, the unit will ask you to enter the key number for the bonus group (*see section "To playback a bonus group of a DVD AUDIO disc"*).

- You can add tracks to the program during program playback of Audio CD.

To playback in random order [RANDOM]

You can play tracks on a DVD AUDIO, Audio CD, Video CD or SVCD disc in random order by using the RANDOM function.

While stopped press key OSD on the remote control. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ✎ to [RANDOM]. Press ENTER. The color of [RANDOM] changes. The unit starts random playback. The display on the front panel reads RANDOM. After playing all tracks on the disc, random playback ends.

To quit random playback press ■. The unit stops playback and quits the random playback mode.

Notes:

- The same track will not be played back more than once during random playback.

- During Audio CD playback, pressing ENTER when ✎ points [RANDOM] quits random mode and continues playback in normal order.

- In the random playback mode with a DVD AUDIO disc, tracks in the bonus group are not played back (*see section "To playback a bonus group of a DVD AUDIO disc"*).

Repeat playback

You can repeat playback of current title or chapter (for DVD VIDEO), current group or track (for DVD AUDIO), or current or all tracks. You can also repeat playback of a desired part.

Each time you press the Repeat key on the remote control during playback (except Video CD playback with active PBC function), the repeat mode toggles among "ALL REPEAT", "REPEAT 1" and "OFF". You can see the selected mode by icons in the display on the front panel as shown below (*see "Overview of display elements", item 5*):

⊃ : Repeats the current title (for DVD VIDEO), current group (for DVD AUDIO), or all tracks (for Audio CD/Video CD/SVCD).

1: Repeats the current chapter (for DVD VIDEO) or current track (for DVD AUDIO, Audio CD/Video CD/SVCD).

No indication: The repeat mode is off.

There is an alternative method to activate the repeat mode. During playback (except playback of Video CD/SVCD with active PBC function), press OSD. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ↘ to [REPEAT], then press ENTER. Each time you press ENTER, the repeat mode changes analogue to the use of the Repeat key.

The following table shows the relation between repeat mode, indicator and on-screen display depending on the disc type:

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Disc type	Display	On-screen display	Function
DVD VIDEO	⟳	TITLE REPEAT	Repeats current title
	⟳ 1	CHAPTER REPEAT	Repeats current chapter
DVD AUDIO	⟳	GROUP REPEAT	Repeats current group
	⟳ 1	TRACK REPEAT	Repeats current track
Audio CD/ Video CD/ SVCD	⟳	REPEAT ALL	Repeats all tracks
	⟳ 1	REPEAT 1	Repeats current track

To stop repeat playback press ■. When a DVD VIDEO disc is set, the unit stops and quits the repeat mode. When a DVD AUDIO, Audio CD, Video CD or SVCD is set, the unit stops playback but does **not** quit the repeat mode.

To quit repeat playback press Repeat key until the repeat mode indicator goes off in the display, or move ↘ to [REPEAT] using cursor keys ▲/▼ and press ENTER repeatedly until [REPEAT] returns to its original color.

Notes:

- When the program playback mode is active with a DVD AUDIO, Audio CD, Video CD or SVCD, the repeat mode changes in the same manner. However, in "REPEAT ALL" mode the unit repeats all the programmed tracks, instead of all tracks on the disc.

- If ⊘ appears when pressing ENTER you cannot repeat the title or chapter because of the disc contents.

- Repeat playback function cannot be used during the Video CD/SVCD playback with active PBC function.

- To turn off the on-screen display press OSD.

To repeat a desired part [A-B REPEAT]

During playback press OSD. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ✎ to [A-B REPEAT], then press ENTER at the beginning of the part you want to repeat (Point A). The color of [A-B REPEAT] changes. Press ENTER at the end of the part you want to repeat (Point B). The unit locates "A" and starts repeat playback between "A" and "B".

To quit A-B repeat playback press ■. The unit stops playback and quits A-B repeat mode.

Notes:

- During playback, pressing ENTER when ✎ is pointed at [A-B REPEAT] quits A-B repeat mode and continues playback.

- You can also quit A-B repeat mode by pressing ◀◀ or ▶▶.

- To turn off on-screen display press OSD.

- If ⊘ appears when pressing ENTER during DVD VIDEO playback, you cannot repeat the selected portion because of the disc contents.

Selecting a scene angle of DVD VIDEO

You can enjoy a variety of scene angles if the DVD VIDEO disc contains "multi-angle" parts, where multiple cameras were used to shoot the same scene from different angles.

Note: At the beginning of a "multi-angle" part, 🎥 appears on the TV screen.

To select a scene angle from the normal screen [ANGLE]

During DVD VIDEO playback press key `Angle`. The angle selection display appears in the TV screen: 🎥 ◄ n/m ►.

Each use of the cursor keys ◄ or ►, or key `Angle` changes the used angle. Select the desired angle.

"n" is the number of current angle. "m" is the total number of recorded angles.

Notes:

- The angle selection display will automatically disappear if you do not change the angle for several seconds.

- To turn off the angle selection display manually, press `ENTER`.

- If ⊘ appears on the TV screen the current scene is not recorded from multiple angles.

You can select the desired angle from the on-screen display. During DVD VIDEO playback press `OSD`. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ↘ to [ANGLE]. Select desired angle by using cursor keys ◄ or ► or key `Angle`.

To turn off on-screen display press `OSD`.

To select a scene angle from the angle list screen [ANGLE]

During DVD VIDEO playback hold down key `Angle` for more than 1 second. Up to nine camera angles recorded on a disc appear on the TV screen. Select desired angle using the cursor keys ▲/▼/◄/►. Press `ENTER` or ► to playback selected angle on the full-size screen.

Notes:

- During selection audio is muted.

- If ⊘ appear son the TV screen the current scene is not recorded from multiple angles.

Changing the language and sound

Some DVD VIDEO discs support more than one subtitle language and / or audio language/sound, while some DVD AUDIO discs support more than one audio language/sound. You can select the desired one from them. Similarly, you can select audio channel(s) of a Video CD/SVCD disc.

To select the subtitle languages [SUBTITLE]

If you want to change subtitle language from the normal screen, press Subtitle during playback of DVD VIDEO/DVD AUDIO/Video CD/SVCD. The subtitle selection display appears on the TV screen:

⬚ ON ◄ n/m ► <LANGUAGE>

"n" is the number of current subtitle language.

"m" is the total number of available subtitle languages.

<LANGUAGE> is the name of current subtitle language.

To turn the subtitle on and off press Subtitle. If subtitles are turned on, ON appears right to the subtitle symbol on the TV screen. If the subtitles are off, OFF will appear there.

Use cursor keys ◄/► to select desired subtitle language.

During DVD VIDEO playback you can change the subtitle language. Press key OSD-Taste, and the on-screen display appears on the TV screen.

Use cursor keys ▲/▼ or key Subtitle to move ↳ to [SUBTITLE]. Use cursor keys ◄/► or key Subtitle to select desired subtitle.

Notes:

- An SVCD disc can have up to four subtitles. Pressing cursor keys ◄/► cycles among those four channels regardless of whether the subtitles are recorded or not. If no subtitle is recorded on the selected channel, no subtitle appears on the TV screen.

- For DVD VIDEO, the selected language may be abbreviated on the TV screen (*see section "Table of languages and their abbreviations"*).

- The subtitle selection display will automatically disappear if you do not change the subtitle for several seconds.

- To turn off the subtitle selection display manually press ENTER.

- To turn off the on-screen display press OSD.

- When Ⓢ appears on the TV screen you cannot select the subtitle.

To change the audio language and sound [AUDIO]

By AUDIO selection, you can choose the audio language of movies or enjoy KARAOKE with or without the lead vocals.

For AUDIO selection from normal screen press key Audio during playback. The Audio selection display appears on the TV screen:

◉)) ◄ n/m ► <LANGUAGE>

"n" is the number of current audio language.

"m" is the total number of available audio languages.

<LANGUAGE> is the name of current audio language.

Use cursor keys ◄/► or key Audio to select desired audio.

To select audio from the on-screen display press key OSD. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ or key Audio to move ↘ to [AUDIO]. Use cursor keys ◄/► or key Audio for audio selection. The current selection will be displayed in the message area.

Notes:

- For DVD VIDEO, the selected language may be abbreviated on the TV screen (*see section "Table of languages and their abbreviations"*).

- The Audio selection display will automatically disappear if you do not change the audio for several seconds.

- To turn off the Audio selection display manually, press ENTER.

- To turn off the on-screen display press OSD.

- When Ⓢ appears on the TV screen (for a DVD VIDEO/ DVD AUDIO disc) you cannot select the audio.

Miscellaneous functions

The VFP (**V**ideo **F**ine **P**rocessor) function enables you to adjust the picture character according to the type of programming, picture tone or personal preferences.

During playback (for DVD AUDIO: during playback while picture is shown) press key VFD on the remote control. The VFP display appears on the TV screen. Each time you press the key, the preset changes as follows:

```
        NORMAL  ⇦──────┐
          ⇩            │
        CINEMA         │
          ⇩            │
        USER 1         │
          ⇩            │
        USER 2  ───────┘
```
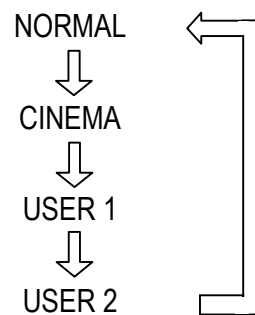
[NORMAL] and [CINEMA] are factory presets and you cannot change parameters for them. While selecting [USER 1] or [USER 2], you can adjust parameters that affect the picture character and store the settings as the user preset.

Selected preset

Current parameter   Level
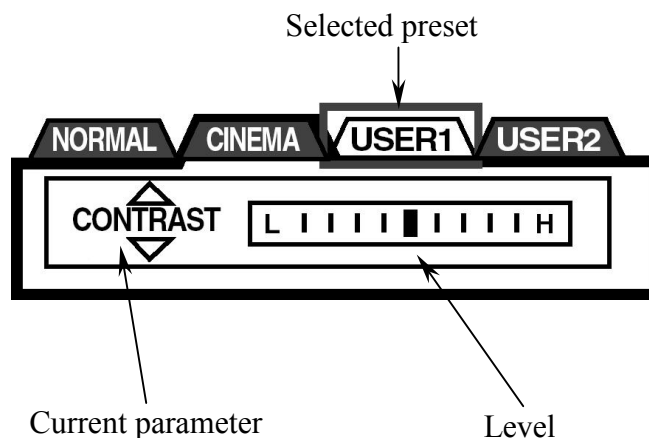
To define a user setting, select [USER 1] or [USER 2] by pressing key VFP. Use cursor keys ▲/▼ to select a parameter to be edited. Adjust level of parameter using cursor keys ◄/►. Moving the adjusting bar to the left reduces the effect, while moving the bar to the right enhances the effect.

The middle position of the bar corresponds to the default level of parameter (except parameter SHARPNESS).

Preset [NORMAL] corresponds to default picture character.

Preset [CINEMA] emphasizes color depth and brightness.

Notes:

- The number of setting steps depends on parameters.

- The VFP screen disappears if no operations are made for more than 10 seconds. You can also turn off the VFP screen manually by pressing ENTER.

The following parameters can be adjusted independently for settings [USER 1] and [USER 2]:

- BRIGHTNESS:
  Controls the brightness of the screen

- CONTRAST:
  Controls the contrast of the screen

- COLOR:
  Controls the color depth of the screen

- TINT:
  Controls the tint of the screen

- SHARPNESS:
  Controls the sharpness of the screen

- Y-DELAY:
  Controls the color gap of the screen

- GAMMA:
  Controls the brightness of neutral tints with maintaining the brightness of dark and bright portions.

To check the disc time [TIME SELECT]

You can choose the time display mode for a DVD AUDIO, Audio CD, Video CD or SVCD disc in the display on the front panel and in the on-screen display.

Change time display mode for:

- DVD AUDIO during playback of audio only or while stopped,

- Audio CD during playback or while stopped,

- Video CD/SVCD only while stopped.

Press key OSD. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ to move ↘ to [TIME SELECT]. Each time you press ENTER, the time mode changes as follows:

● During playback (for DVD AUDIO/Audio CD):

EACH
(current track elapsed time)

⇩

EACH REMAIN
(current track remaining time)

⇩

TOTAL
(disc elapsed time)

⇩

TOTAL REMAIN
(disc remaining time)

● While stopped:

EACH REMAIN
(recorded time of the current track)

⇩

TOTAL (0:00)

⇩

TOTAL REMAIN
(total time of the disc)

⇩

EACH (0:00)
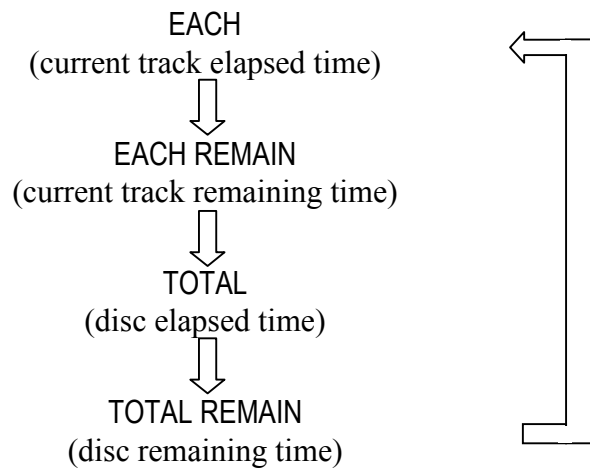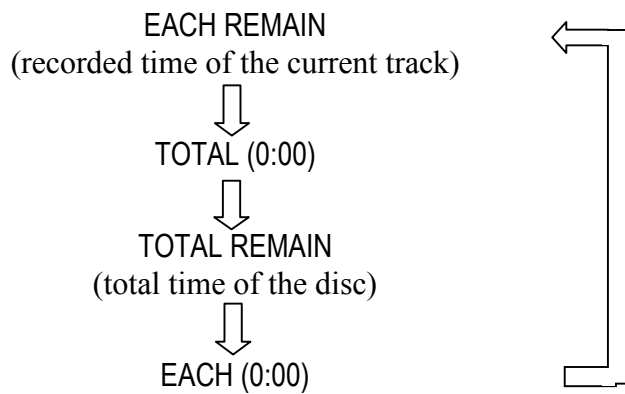
Note:

- When you select EACH REMAIN while stopped, you can change the track by pressing |◄◄ or ►►|.

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To select a still picture on a DVD AUDIO disc [PAGE]

Most DVD AUDIO discs include still pictures, which usually appear in turn automatically during playback according to the playback sequence. However, there are other pages of the current still picture and you can change the picture (turn the page) manually. At the beginning of a part where there are selectable pictures, PAGE (or a corresponding word of the current display language) appears on the TV screen.

While PAGE (or a corresponding word of the current display language) appears on the TV screen during playback press key Page. The page selection display appears on the TV screen:

PAGE ◄ n/m ►

"n" is the currently selected page.

"m" is the total number of pages.

Use cursor keys ◄/► or to select the desired page. You can also advance to the next page by pressing the Page button.

While PAGE (or a corresponding word of the current display language) appears on the TV screen during playback press key OSD to select a page from the on-screen display. The on-screen display appears on the TV screen. Use cursor keys ▲/▼ or key Page to move ↘ to [PAGE]. Select desired page by using cursor keys ◄/► or Page. Each time you press the key, the page changes.

To playback a bonus group of a DVD AUDIO disc

Some DVD AUDIO discs contain a special group called "bonus group" whose contents are not opened to the public. The bonus group is always assigned to the last group of a disc (for example, if a disc contains four groups including a bonus group, "group 4" is the bonus group).

To playback a bonus group, you have to enter the specific "key number" (a kind of password) for the bonus group. A way of getting the key number depends on discs.

After getting the key number, you can playback the bonus group by the following procedure.

While a DVD AUDIO disc containing a bonus group is stopped select the bonus group number (the last group) using the numeric keys. The display window and on-screen display prompt you to enter the key number as shown below:

Display window: KEY _ _ _ _

On-screen display: ⚷ _ _ _ _

Enter the key number using the numeric keys (0 to 9). If you enter the key number correctly, the unit starts playback of the bonus group.

If you enter the wrong key number, the unit does **not** start playback and the display window and TV screen again prompt you to re-enter the key number.

Notes:

- Once you enter the correct key number, the unit memorizes it until you turn off the power or open the drawer.

- If you specify a track in the bonus group when programming tracks for the program playback, the display window also shows the above display for inquiring the key number.

- In the random playback mode, tracks in the bonus group are not played back.

- To turn off the key number entry display, operate any one of the following:
  - press ∎,
  - open the drawer or
  - turn off power off.

- Opening the drawer or turning the power off also erases the memory of the key number, while pressing ∎ does not erase the memory.

Checking the sampling frequency

You can check the sampling frequency of digital audio during playback. Press Audio for more than one second. The sampling frequency of the current digital audio is shown in the display window temporarily. Nita that any figure below the decimal point is omitted in the display window.

Actual sampling frequency	Display window
22.05 kHz	FS: 22
44.1 kHz	FS: 44
48kHz	FS: 48
88.2 kHz	FS: 88
96 kHz	FS: 96
176.4 kHz	FS: 176
192 kHz	FS: 192

Notes:

- This function is also applied to an MP3 disc.
- You cannot check the quantization bit length via the display window.
- With some disc, the sampling frequency may not be shown in the display window.

MP3 disc playback

The VIP can playback CD-R/CD-RW discs recorded by the MP3 format (those discs are referred to as MP3 discs in this manual). Though available functions with MP3 discs are limited, operations for the available functions are similar to those with Audio CD discs.

What is MP3? MP3 is the abbreviation of "MPEG1 Audio Layer 3". MPEG Audio is a compression specification that compresses the audio portion only. The audio data has been compressed into about 1/10. A similar compression method is also used on images on DVD Video, Video CD and SVCD discs.

About MP3 discs On an MP3 disc, each material (song) is recorded on a track (file). Tracks are usually grouped into a "group" (folder) by category, by artist etc. In addition, groups can also be members of groups (groups' group), creating hierarchical group layers. If you are familiar with personal computers, you may easily understand the hierarchical group layer construction of MP3 discs because it is similar to the folder layer construction of computers.

The VIP can handle up to 100 tracks per group, up to 100 groups per group layer and up to 10 group layers. If a disc has more tracks, groups or group layers than the above, the unit does not recognize those exceeding the maximum numbers and cannot playback them.
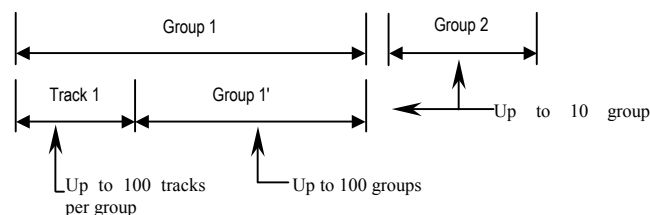
Notes:

- The unit does not support "packet write" discs.

- Some disc may not be played back because of the disc characteristics or recording condition.

- The unit does not output a digital audio signal from Digital Out when playing back an MP3 disc.

- You cannot playback tracks in the desired (programmed) or random order.

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- The unit only can play back tracks with any of the following file extensions:
  `*.MP3, *.Mp3, *.mp3` and `*.mP3`.

- Notes for making a private MP3 disc using CD-R/CD-RW discs:
  - Select "ISO 9669" as the disc format.
  - Do not select the "multi-session" recording.
  - Finalize the disc after completing recording.

Basic operations The following table shows basic functions of basic control keys:

Key	Function
ENTER	Starts playback
∎	Stops playback completely
❚❚	Pauses playback temporarily
⏮ or ⏭	Skips back or forward a track in the group*)

*) You cannot skip a track across a group.

The current track number is shown on the display window in the following manner:

Current track number   Current rack elapsed time
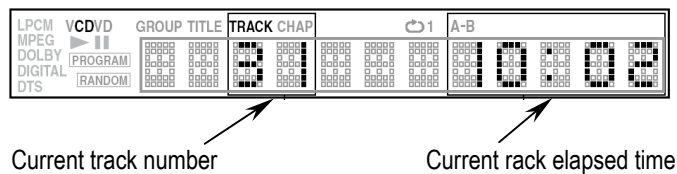
Notes:

- Only MP3 files are shown on the display window as a track.

- Group number is not shown in the display window.

- You cannot advance or reverse playback of an MP3 disc rapidly.

- You cannot see any other time information but the current track elapsed time.

- You can check the sampling frequency of an MP3 disc (*see section "Checking the sampling frequency"*).

Specify the desired group and track

When loading an MP3 disc, after the disc contents are read, the MP3-CONTROL display automatically appears on the TV screen. You can specify the desired group and track for playback via this display.

When the MP3 selection display is shown while stopped (MP3-CONTROL) highlight a desired group using cursor keys ▲/▼ and press ENTER. The highlighted group is selected, and the contents of the group is shown. If the selected group contains one or more groups, repeat previous steps until tracks in the selected group are shown.

```
┌──────────────────────────────────────────────┐
│     ┌────────────────────┐                     │
│     │ MP3 CONTROL        │                     │
│     ├──────────────────────────────┐           │
│     │ GROUP:UB40/                  │           │
│     └──────────────────────────────┘           │
│                                                │
│     ┌──────────────────────────────┐           │
│     │ 01- One In Ten.mp3           │           │
│     ├──────────────────────────────┤           │
│     │ 02- Red Red Wine.mp3         │──────┐     │
│     ├──────────────────────────────┤       │     │
│     │ 03- Kingston Town.mp3        │       │     │
│     ├──────────────────────────────┤       │     │
│     │ 04- Higher Ground.mp3        │       │     │
│     ├──────────────────────────────┤       │     │
│     │ 05- King.mp3                 │       │     │
│     ├──────────────────────────────┤       │     │
│     │ 06- Cherty oh Baby.mp3       │       │     │
│     ├──────────────────────────────┤       │     │
│     │ 07- I Got You Babe.mp3       │       │     │
│     └──────────────────────────────┘       │     │
└──────────────────────────────────────────────┘
       ▲                              ▲
   Selected group               Selected track
```
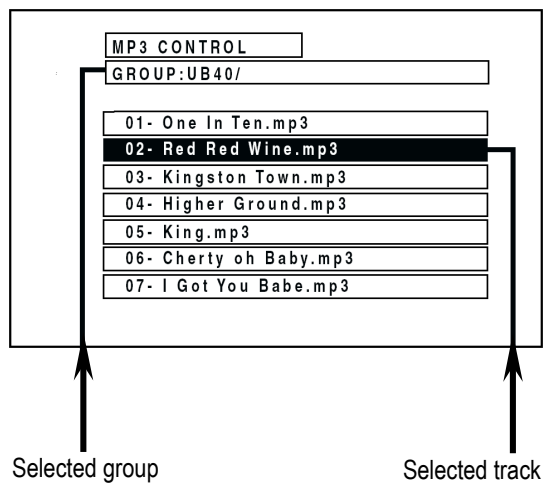
Highlight a desired track using cursor keys ▲/▼ and press ENTER. The unit starts playback from specified track. During playback, the bottom row of the display shows something like below:

```
┌──────────────────────────────┐
│ Track    1/12    01:23:45     │
└──────────────────────────────┘
     ▲        ▲         ▲
     │        │         │
     │        │      Track time
     │        │
     │     The number of tracks in
     │     current group
     │
  Current track number
```

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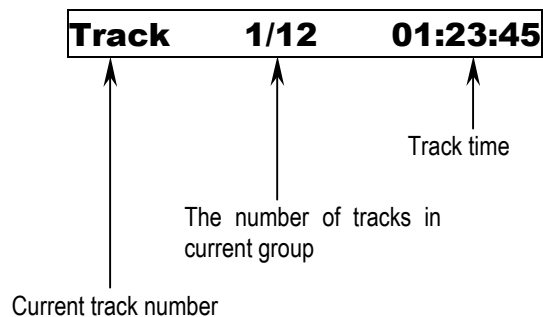
Notes:

- If a MP3 file name includes any 2-byte character, the unit may not show the file name correctly.

- You can select (highlight) a track, which does not belong to any group (if there is any). In this case, pressing `ENTER`, immediately starts playback.

- Pressing the cursor key ◄ returns to the higher hierarchical layer of the group.

- Only MP3 files are shown in the MP3-CONTROL display.

- The order of groups/tracks shown in the MP3-CONTROL display may differ from the order shown on your personal computer when you set the disc on your computer.

Repeat playback You can repeat playback of the current track or group. During playback or while stopped press key `Repeat`. Each time you press the key, the repeat mode toggles among current group repeat, current track repeat and off.

You can see the selected mode by icons on the display window on the front panel as below:

⊂⊃ : Repeats the current group on the disc.

⊂⊃ 1 : Repeats the current track.

No indication : The repeat mode is off.

To stop repeat playback press ■.

To quit repeat playback press `Repeat` as many times until no repeat icon is shown on the display window.

Note:

- You cannot repeat all contents on the disc.

Initial settings

You can set various preferences via the three preferences displays [PREFERENCES1], [PREFERENCES2] and [SPK.SETTING].

How to select preferences

Press key Setup on the remote control. The first preferences display ([PREFERENCES1]) appears on the TV monitor. You can see three tabs for the displays [PREFERENCES1], [PREFERENCES2] and [SPK.SETTING] at the top.

Select the appropriate tab using cursor keys ◄/► when ↘ points either one of the tabs. Move ↘ to select the item you want to edit by using the cursor keys ▲/▼. Press cursor keys ◄/► to select from options.

For details about each setting, see the following sections.

Notes:

- To return to normal screen press key Setup.

- If you bring up a preferences display during DVD VIDEO/Video CD/SVCD playback, the unit memorizes the current position, and resumes playback form that position later when dismissing the preferences display.

Language and display preference

The [PREFERENCES 1] display handles preferences related to language and display.
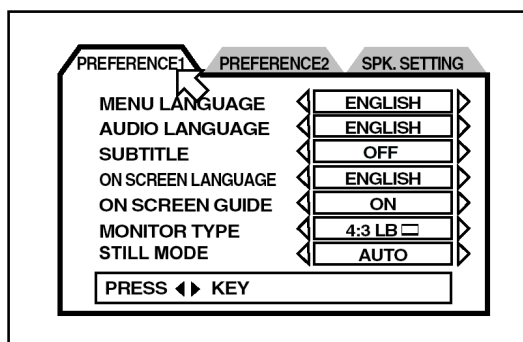
MENU LANGUAGE You can select the default display language to be displayed if it is contained on a DVD VIDEO/DVD AUDIO disc. Each time you press cursor key ►, the language setting changes in the following order:

ENGLISH → SPANISH → FRENCH → CHINESE → GERMAN → ITALIAN → JAPANESE → **language code from AA to ZU** (*see section "Table of languages and their abbreviations"*)

Pressing cursor key ◄ changes the language setting in the reverse order of the above.

Note:

- If the selected language is not recorded, the disc's default display language will be displayed.

AUDIO LANGUAGE You can select the default audio language to be played if it is contained on a DVD VIDEO/DVD AUDIO discs. Each time you press cursor key ►, the language setting changes in the following order:

ENGLISH → SPANISH → FRENCH → CHINESE → GERMAN → ITALIAN → JAPANESE → **language code from AA to ZU** (*see section "Table of languages and their abbreviations"*)

Pressing cursor key ◄ changes the language setting in the reverse order of the above.

Note:

- If the selected language is not recorded, the disc's default audio language will be displayed.

SUBTITLE You can select the default language to be displayed if it is contained on a DVD VIDEO/DVD AUDIO disc. Each time you press cursor key ►, the language setting changes in the following order:

ENGLISH → SPANISH → FRENCH → CHINESE → GERMAN → ITALIAN → JAPANISE → **language code from AA to ZU** (*see section "Table of languages and their abbreviations"*)

Pressing cursor key ◄ changes the language setting in the reverse order of the above.

Note:

• If the selected language is not recorded, the disc's default subtitle language will be displayed.

ON SCREEN LANGUAGE   You can select the on-screen display language of the unit. Each time you press ►, the language setting changes as follows:

ENGLISH → FRANCAIS → DEUTSCH

Pressing cursor key ◄ changes the language setting in the reverse order of the above.

ON SCREEN GUIDE   The unit can display on-screen guide icons or characters on the TV screen, which show what is happening to the disc or unit.

Select ON to activate on-screen guide.

Select OFF to switch off on-screen guide.

Examples of on-screen guide icons or characters: ◯⟩⟩, ⌷, 🎥

MONITOR TYPE   You can select the monitor type to match your TV or projector when you playback DVD VIDEO discs recorded for wide screen televisions.

4:3 LB. ◻ (Letter Box Conversion):

This option should be selected when you connect a normal TV or projector to the unit. When you playback a wide picture recorded on a DVD VIDEO disc, the picture is displayed with bands across the upper and lower portions of the screen.

4:3 PS. ☐ (Pan Scan Conversion):

This option should be selected when you connect a normal TV or projector to the unit. When you play a wide picture recorded on a DVD VIDEO disc, a portion of the picture is automatically cut off from the left and right sides of the image.

Depending on the disc, it may not be possible to playback in this mode. In that case, the picture is played back as **4:3 LB.** ☐ mode.

16:9 AUTO (Wide Television Screen):

This option should be selected when you connect a wide-screen TV or projector to the unit.

16:9 NORMAL (Wide Television Screen):

This option should be selected when you connect the unit to a wide-screen TV or projector whose aspect ratio is fixed to 16:9. The unit automatically adjusts the screen width of the output signal correctly when playing back a 4:3 source.

Notes:

- If a disc does not support "4:3 Pan Scan", the letter box screen appears even if you set the MONITOR TYPE to **4:3 PS. □**.

- If you playback a 4:3 DVD VIDEO source with the **16:9 NORMAL** mode, the picture character slightly changes due to the process for converting the picture width.

STILL MODE   Select one of the following options for optimum playback of still frames:

- ▪ **AUTO**
  The unit detects automatically the picture type of the image (movie or TV/Video source) of current disc.

- ▪ **HALBBILD**
  Use this option to playback still frames from TV/Video sources.

- ▪ **VOLLBILD**
  Use this option to playback still frames from movie sources.

Audio and system preferences

The [PREFERENCES 2] display handles preferences related to audio and system.

```
┌─────────────────────────────────────────────┐
│                                             │
│  ┌──────────┐╱PREFERENCE2╲ ┌──────────┐     │
│  │PREFERENCE1│            │SPK. SETTING│     │
│  ┌──────────────────────────────────────┐   │
│  │ DIGITAL AUDIO OUTPUT ◁│STREAM/PCM│▷   │   │
│  │ DOWN MIX            ◁│  Lo/ Ro  │▷   │   │
│  │ COMPRESSION         ◁│    ON    │▷   │   │
│  │ DTS BASS MANAGEMENT ◁│   OFF    │▷   │   │
│  │ AUTO STANDBY        ◁│   OFF    │▷   │   │
│  │ SCREEN SAVER        ◁│  MODE1   │▷   │   │
│  │ AV COMPULINK MODE   ◁│   DVD1   │▷   │   │
│  ┌──────────────────────────────────────┐   │
│  │        PRESS ◀▶ KEY                   │   │
│  └──────────────────────────────────────┘   │
└─────────────────────────────────────────────┘
```
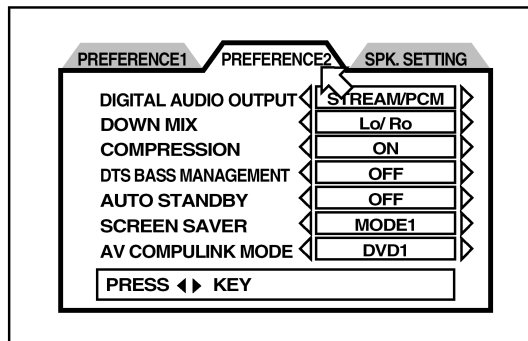
DIGITAL AUDIO OUTPUT

To connect the unit's digital output 1 (SPDIF) to an external device equipped with a digital input, this item must be set correctly.

- **PCM ONLY**
  This option should be selected when you connect the DIGITAL OUT 1 jack (*see section "Overview of connections, Rear view", item 17*) of the unit to the linear PCM digital input of other audio equipment.

- **STREAM/PCM**
  This option should be selected when you connect to the digital input of an (pre-) amplifier with a built-in DTS, Dolby Digital or MPEG multichannel decoder.

- **DOLBY DIGITAL/PCM**
  This option should be selected when you connect to the digital input of a Dolby Digital decoder, or an (pre-) amplifier with a built-in Dolby Digital decoder.

The following table shows the relationship between types of playback discs and output signals:

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Playback discs	Output		
	STREAM/PCM	DOLBY DIGITAL/PCM	PCM ONLY
DVD with 48/44.1 kHz, 16 bit linear PCM	448/44.1 kHz, 16 bit, stereo linear PCM	←	←
DVD with 48/44.1 kHz, 20/24 bit linear PCM	48/44.1 kHz, 16 bit, stereo linear PCM*	←	←
DVD with 96/88.2 kHz, linear PCM	No output	←	←
DVD with 192/176.4 kHz, 16/22/24 bit linear PCM	No output	←	←
DVD with DTS	DTS bitstream	48 kHz, 16 bit, stereo linear PCM*	←
DVD with Dolby Digital	Dolby Digital bitstream	←	48 kHz, 16 bit, stereo linear PCM*
DVD with MPEG Multichannel	MPEG bitstream	48 kHz, 16 bit, stereo linear PCM	←
Video CD/SVCD	44.1 kHz, 16 bit, stereo linear PCM	←	←
Audio CD	44.1 kHz, 16 bit, stereo, linear PCM	←	←
Audio CD with DTS	DTS bitstream	44.1 kHz, 16 bit, stereo linear PCM	←
CD-R/CD-RW with MP3	No output	←	←

* With some DVD VIDEO discs that are not fully copyprotected, a 20 or 24 bit digital signal may be output.

DOWN MIX   To playback a DVD VIDEO disc recorded with surround multichannel audio correctly, the DOWNMIX setting must be properly made according to your audio system. Note that this setting affects only the output signal from the analog audio output jacks when playing back a DVD VIDEO disc recorded with surround multichannel audio.

- Lt/Rt
  This option should be selected when you enjoy multichannel surround audio by connecting the unit's analog audio output to a surround decoder.

- Lo/Ro

  This option should be selected when you enjoy conventional 2-channel stereo audio by connecting the unit's analog audio output to a stereo (pre-) amplifier/receiver or television set.

- OFF

  When you enjoy multichannel surround audio by connecting the unit's 5.1-channel audio outputs to an amplifier equipped with 5.1-channel inputs.

Note:

- Some DVD AUDIO discs prohibit the 2-channel downmix. For such a disc, you cannot get the down-mixed signal even if you set [DOWNMIX] to Lt/Rt or Lo/Ro.

COMPRESSION (only for Dolby Digital DVD VIDEO Discs)

When enjoying a DVD VIDEO disc recorded with the Dolby Digital format at low or middle volume, setting [COMPRESSION] to ON makes you hear sound comfortably.

- **ON**

  Audio is played back with dynamic range compressed.

- **OFF**

  Audio is played back as it was recorded.

Note:

- The [COMPRESSION] function works only when playing back a disc recorded with Dolby Digital. The setting is not effective for other discs.

DTS BASS MANAGEMENT

This item controls the output signals when playing back DTS-encoded DVD VIDEO discs.

- **OFF**

  This is the normal setting for DTS-encoded discs. Signals with the full frequency range are output from all speakers when playing back a DTS-encoded disc. This mode ignores all Small settings in the speaker setting screen. All Small settings are regarded as Large.

- **ON**

  All speaker settings (front, center, and rear) in the speaker setting screen are effective when playing back DTS-encoded discs. The

low frequency signal fed from the sub-woofer output is boosted up regardless of the bass redirection setting in the speaker settings screen.

AUTO STANDBY   When the unit is stopped for more than 30 minutes or 60 minutes, the unit enters standby mode automatically.

- **60**
  Time is set to 60 minutes.
- **30**
  Time is set to 30 minutes.
- **OFF**
  The auto standby function is off.

SCREEN SAVER   Do **not** change factory default setting (MODE 1). In order to prevent burn out damage to a television monitor or projector, the unit reduces brightness of video output if a static picture, such as an on-screen display or menu, is displayed for over 5.

AV COMPULINK MODE   Do **not** change factory default setting (DVD1).

Speaker Channel setting   Select the speaker configuration type according to your speaker system. Normally, simply select [5.1 CH.] or [2 CH.]. However, by selecting [EXPERT], you can make fine tuning to match your speaker system.

Note:

- The speaker channel settings made here are valid for DVD Video discs and CDs with a sample rate up to 48kHz only. For a bass management for all playback formats and sample rates please use the Audionet Bass Management (see section *"Appendix B: Audionet Bass Management"*).
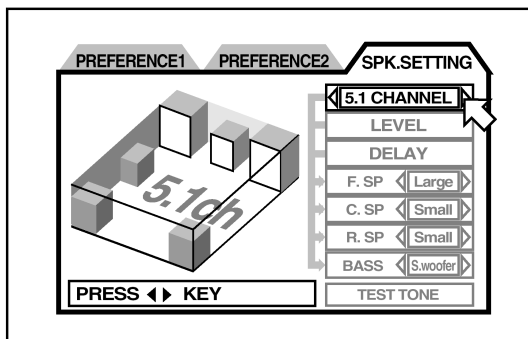
- **2 CH.**
  When you connect to a 2-channel amplifier or TV.

- **5.1 CH.**
  When you connect to a 5.1-channel amplifier and use front, rear, center and sub-woofer speakers.

- **EXPERT**
  When you want to make fine-tuning to match your speakers. The following five setting items are available.

Notes:

- When selecting 5.1 CH. or EXPERT, set [DOWNMIX] to OFF (see above).

- The Dolby Digital LFE (Low Frequency Effect) signal is always fed from the subwoofer output on the rear panel of the unit regardless of speaker setting.

- If you connect the unit's digital output to an external Dolby Digital or DTS decoder (and set the [DIGITAL AUDIO OUTPUT] to STREAM/PCM), the speaker setting above is not effective. Make the speaker setting of the external decoder properly.

Speaker size settings (available only when selecting EXPERT)

Sets the speaker sizes according to your speakers.

Select the speaker to be set using the cursor keys ▲/▼:

- **F.SP**: Front speakers
- **C.SP**: Center speaker
- **R.SP**: Rear speakers

Select the size using cursor keys ◄/►:

- **Large**: Large speakers(s), which can fully reproduce the low-frequency range.

- **Small**: Small speaker(s) which cannot fully reproduce the low-frequency range.
- **None**: No speaker(s) connected.

If you set the front speakers to Small, you cannot set the other speakers to Large.

Bass redirect (available only when selecting EXPERT)

When you use small speakers, which do not fully reproduce the low-frequency range, you can redirect the low-frequency signal to the sub-woofer or front speakers.

Select [BASS] using cursor keys ▲/▼. Select [S.woofer] or [L/R] using cursor keys ◄/►.

- **S.woofer:** The low-frequency signal from the speakers selected Small is redirected to subwoofer output.
- **L/R:** The low-frequency signal from the speakers selected Small is redirected to front speakers L/R.

Notes:

- The Bass redirect setting is effective only when at least any one of the speaker sizes is set to Small. If none of them is set to Small, this setting is not activated None appears in the setting field.
- Please note that L/R setting is effective only when playing back a Dolby Digital encoded DVD VIDEO disc.
- If the front speaker size is set to Small, the Bass redirect setting is fixed to S.woofer.

Speaker level (available only when selecting EXPERT)

You can adjust the output level of each speaker.

Select [LEVEL] using the cursor keys ▲/▼, then press ENTER. The color of [LEVEL] changes. Now, select the desired speaker(s) to be set using the cursor keys ▲/▼.

- **F.SP**: Front speakers. The level is fixed to 0dB.
- **C.SP**: Center speaker
- **R.SP**: Rear speakers
- **S.WOOFER**: Subwoofer

The setting range is between –6dB to +6dB in 1dB steps.

Set the level using the cursor keys ◄/►.

Notes:

- For the speaker(s) whose size is set to None, the Speaker level and Delay cannot be set. "―" appears in the setting field.

- However, when playing back a Dolby Digital disc, LFE signal is output from subwoofer output even if S.WOOFER shows "―", allowing to activate a subwoofer connected. In such a case, adjust the output level using the level control on the subwoofer.

Delay (available only when selecting EXPERT)

You can adjust the delay time of each speakers.

Select [DELAY] using the cursor keys ▲/▼, then press ENTER. The color of [DELAY] changes. Select the desired speaker(s) to be set using the cursor keys ▲/▼.

- **F.SP**: Front speakers. The delay is fixed to 0ms.

- **C.SP**: Center speaker, selectable from 0 to –5ms in 1ms steps

- **R.SP**: Rear speakers, available settings: 0ms, -5ms, -10ms, -15ms

Set the delay time using cursor keys ◄/►.

Note:

- Delay of S.WOOFER cannot be set.

To exit the speaker level or delay setting mode, move ↘ to [LEVEL] or [DELAY] in the on-screen display and press ENTER until [LEVEL] or [DELAY] returns to its original color.

Test Tone (only available while setting [LEVEL] or [DELAY])

You can check the level setting by monitoring the test tone.

Select [TEST TONE] using the cursor keys ▲/▼, then press ENTER. The color of [TEST TONE] changes. Select the desired speaker(s) using the cursor keys ▲/▼.

- **F.SP**: Front speakers
- **C.SP**: Center speaker
- **R.SP**: Rear speakers

After selecting the test tone, if you do not move ↖, the test tone is output from each speaker one by one. In test tone mode, if you move ↖ down from R.SP position, the test tone continues to output from the rear speakers as long as ↖ is any position other than F.SP or C.SP. Similarly, if you move ↖ up from F.SP position, the test tone continues to output from the front speakers as long as ↖ is any position other than C.SP or R.SP.

Set the level using the cursor keys ◄/► again, if necessary.

To exit the test tone mode, move ↖ to [TEST TONE] in the on-screen display and press ENTER until [TEST TONE] returns to its original color.

Notes:

- In test tone mode, you hear pink noise, which includes all frequencies in the audible range, from the speakers. This is not a malfunction.

- The test tone is not output from the subwoofer output.

Table of languages and their abbreviations

When you select the subtitle language or sound, the languages shown below are displayed as abbreviations. To select the desired language, select the abbreviation corresponding the language you want to.

AA	Afar	IK	Inupiak	RN	Kirundi
AB	Abkhazian	IN	Indonesian	RO	Rumanian
AF	Afrikaans	IS	Icelandic	RU	Russian
AM	Ameharic	IW	Hebrew	RW	Kinyarwanda
AR	Arabic	JI	Yiddish	SA	Sanskrit
AS	Assamese	JW	Javanese	SD	Sindhi
AY	Aymara	KA	Georgian	SG	Sangho
AZ	Azerbaijani	KK	Kazakh	SH	Serbo-Croatian
BA	Bashkir	KL	Greenlandic	SI	Singhalese
BE	Byelorussian	KM	Cambodian	SK	Slovak
BG	Bulgarian	KN	Kannada	SL	Slovenian
BH	Bihari	KO	Korean (KOR)	SM	Samoan
BI	Bislama	KS	Kashmiri	SN	Shona
BN	Bengali, Bangla	KU	Kurdish	SO	Somali
BO	Tibetan	KY	Kirghiz	SQ	Albanian
BR	Breton	LA	Latin	SR	Serbian
CA	Catalan	LN	Lingala	SS	Siswati
CO	Corsican	LO	Laothian	ST	Sesotho
CS	Czech	LT	Lithuanian	SU	Sundanese
CY	Welsh	LV	Latvian, Lettish	SV	Swedish
DA	Danish	MG	Malagasy	SW	Swahili
DZ	Bhutani	MI	Maori	TA	Tamil
EL	Greek	MK	Macedonian	TE	Telugu
EO	Esperanto	ML	Malayalam	TG	Tajik
ET	Estonian	MN	Mongolian	TH	Thai
EU	Basque	MO	Moldavian	TI	Tigrinya
FA	Persian	MR	Marathi	TK	Turkmen
FI	Finnish	MS	Malay (MAY)	TL	Tagalog
FJ	Fiji	MT	Maltese	TN	Setswana
FO	Faroese	MY	Burmese	TO	Tonga
FY	Frisian	NA	Nauru	TR	Turkish
GA	Irish	NE	Nepali	TS	Tsonga
GD	Scots Gaelic	NL	Dutch	TT	Tatar
GL	Galician	NO	Norwegian	TW	Twi
GN	Guarani	OC	Occitan	UK	Ukrainian
GU	Gujarati	OM	(Afan) Oromo	UR	Urdu
HA	Hausa	OR	Oriya	UZ	Uzbek
HI	Hindi	PA	Panjabi	VI	Vietnamese
HR	Croatian	PL	Polish	VO	Volapuk
HU	Hungarian	PS	Pashto, Pushto	WO	Wolof
HY	Armenian	PT	Portuguese	XH	Xhosa
IA	Interlingua	QU	Quechua	YO	Yoruba
IE	Interlingue	RM	Rhaeto-Romance	ZU	Zulu

Appendix A: Connections and options on the rear panel

Video section

1 **Selector PAL/NTSC**
Use switch to select desired video output format. In position **PAL** all video discs are played back in PAL video format. In position **NTSC** video output format is always NTSC. The video output format is independent from the recorded format on the disc. Depending on the disc's video format the output video format is converted.
Note: Power down unit to standby mode before flipping the switch. New switch position will only take effect when the unit is switched on using **POWER** switch on front panel or remote control.

2 **Video output SCART**
Connect your TV set or projector if it is equipped with a SCART video input. When you use video output 2 (SCART), switch 3 has to be in position **SCART RGB**. In this case the SCART output delivers a composite (CVBS) and RGB video signal.

3 **Selector RGB/YC for video outputs**
This switch determines the video output format of video outputs 2 and 29. In position **SCART RGB** video output 2 delivers a composite (CVBS) and RGB signal. In this case, video output 29 has no video signal. In position **Y/C** video output 2 has a composite (CBSV) signal. Video output 29 delivers an Y/C signal.
Note: Power down unit to standby mode before flipping the switch. New switch position will only take effect when the unit is switched on using **POWER** switch on front panel or remote control.

4 **Selector RGB/YUV for Progressive Scan outputs**
This switch determines the output format of video outputs 25 to 27. In position **RGB** the video format is RGB, in position **YUV** the video format is YUV
Note: Power down unit to standby mode before flipping the switch. New switch position will only take effect when the unit is switched on using **POWER** switch on front panel or remote control. The switch has only effect if the optional Progressive Scan card is inserted.

24 **Output Video-Sync**
Video output delivers the video sync signal (composite sync). It is needed if you connect a projector using RGB mode. Refer to the user's manual of your projector.

Note: This output is active only if the optional Progressive Scan card is inserted.

25 Video output B/V
Use this video output (together with outputs 26 and 27) when using a project (or similar display device) that is capable of handling progressive scan video signals. The signal on video output 25 depends on position of switch 4. In position **RGB** output 25 delivers the blue (B) signal, in Position **YUV** the V signal.
Note: This output is active only if the optional Progressive Scan card is inserted.

26 Video output G/U
Use this video output (together with outputs 25 and 27) when using a project (or similar display device) that is capable of handling progressive scan video signals. The signal on video output 26 depends on position of switch 4. In position **RGB** output 26 delivers the green (G) signal, in Position **YUV** the U signal.
Note: This output is active only if the optional Progressive Scan card is inserted.

27 Video output R/Y
Use this video output (together with outputs 25 and 26) when using a project (or similar display device) that is capable of handling progressive scan video signals. The signal on video output 27 depends on position of switch 4. In position **RGB** output 27 delivers the red (R) signal, in Position **YUV** the Y signal.
Note: This output is active only if the optional Progressive Scan card is inserted.

28 Video output Composite (CVBS)
This video output delivers the video signal in composite (CVBS) format. Units, that offer only composite (CVBS) video inputs, should be connected to this video output.

29 Video output S-Video (Y/C)
If switch 3 is in position **Y/C**, this video output delivers the signal in Y/C format
Note: If switch 3 is in position **SCART RGB** this output has no video signal.

Analog Out section   **5   Selector Digital filter**
The digital-to-analog converter of the front channels (Main Left / Main Right) is equipped with a digital signal processor (DSP) calculating the oversampling filter. You can select between two different digital filter algorithms using switch 5.

Despite good amplitude and phase linearity up to 20 kHz, in position **AUDIONET** the digital filter has only short pre-ringing and moderate after-ringing

AUDIONET – Filter

-118.40us   81.60us   281.60us
Ch1 : 1V/Div DC [Scale Factor : 1.00]   40us/Div
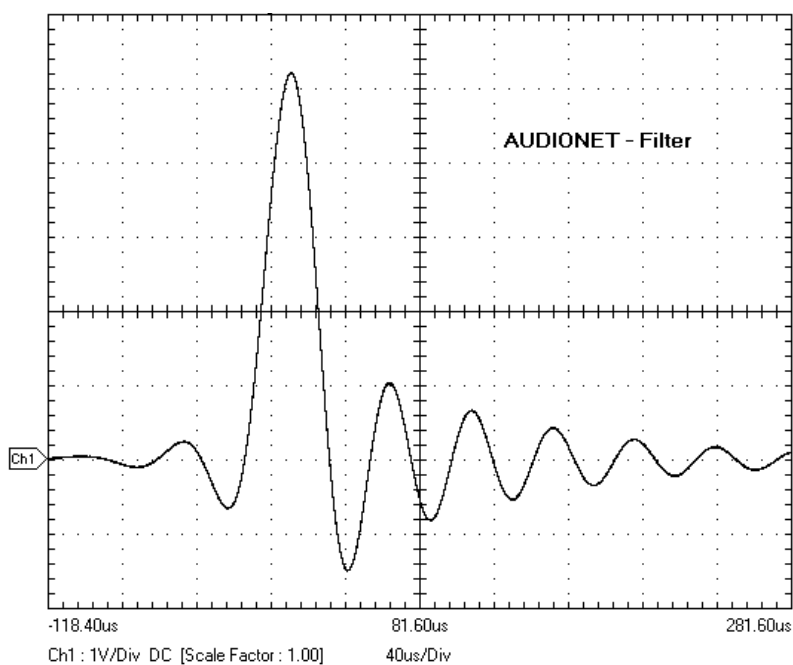
While in position **LAGRANGE** the digital filter has a symmetrical impulse response with very short pre- and after-ringing. But the amplitude response shows a small decay in high frequencies above 16 kHz.

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LAGRANGE - Filter

-118.40us   81.60us   281.60us
Ch1 : 1V/Div DC [Scale Factor : 1.00]   40us/Div
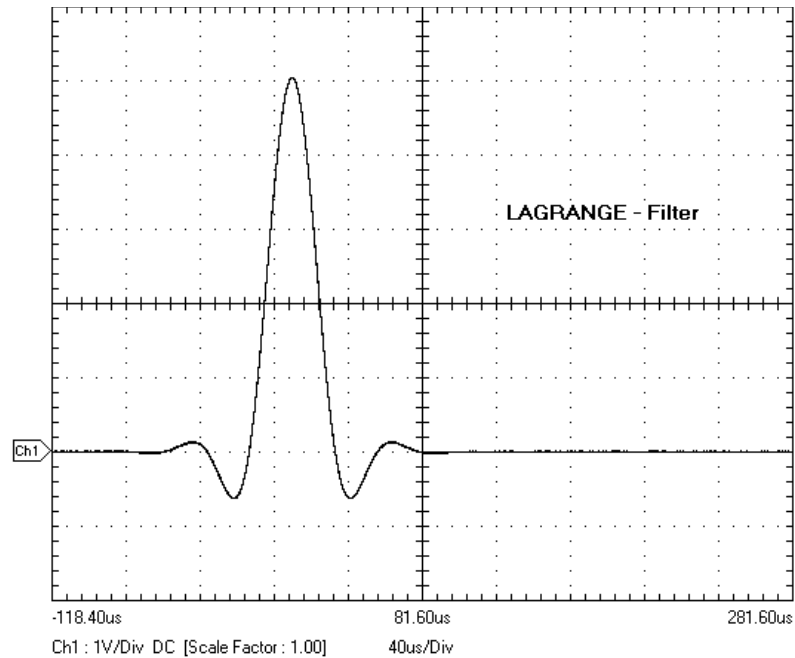
Note: We recommend using the digital filter setting according to your listening habits.

6   Selector Subwoofer
Put switch to position **ON** if you have a subwoofer in your speaker configuration. Otherwise use position **N/A**. This selection is for the Audionet Bass Management only (see *"Appendix B: Audionet Bass Management"*).

7   Selector Bass management
Switches 6 and 7 determine the function of the Audionet Bass Management for all playback formats. For further information please refer to *"Appendix B: Audionet Bass Management"*.

8   Analog output Center
Output of analog Center channel (during multi channel playback).
Note: Availability of signal depends on settings preferences (see section *"Speaker settings"*) and multi channel audio format.

9   Analog output Left Surround
Output of analog Left Surround channel (during multi channel playback).
Note: Availability of signal depends on settings preferences (see section *"Speaker settings"*) and multi channel audio format.

10 Analog output Right Surround
Output of analog Right Surround channel (during multi channel playback).
Note: Availability of signal depends on settings preferences (see section *"Speaker settings"*) and multi channel audio format.

11 Analog output Subwoofer
Output of analog Subwoofer channel (during multi channel playback).
Note: Availability of signal depends on settings preferences (see section *"Speaker settings"*), multi channel audio format and position of switches 6 and 7.

18 Analog output Main Left (Cinch)
Analog audio output Front/Main Left, Cinch.

19 Analog output Main Left (balanced)
Analog audio output Front/Main Left, XLR/balanced.

20 Analog output Main Right (balanced)
Analog audio output Front/Main Right, XLR/balanced.

21 Analog output Main Right (Cinch)
Analog audio output Front/Main Right, Cinch.

Digital Out section **10 On/Off switch for digital outputs**
To switch off all digital outputs flip switch into position **OFF**. Use this setting if you do not need any digital outputs. If you need one or more of the digital outputs put switch in position **ACTIVE** (see also section *"Appendix C: Digital Outputs"*).

11 Selector for output format of digital outputs
Switch 11 determines the output format of digital outputs. Consult user's manual MAP V2 for correct setting for Audionet HighBit-Interface (see also section *"Appendix C: Digital Outputs"*).

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12   Digital output "DataLink"

Digital output to connect an Audionet pre amplifier using the Audionet "DataLink" interface.

15   Digital output 2 (SPDIF)

Digital output format depends on preferences (see section *"Digital audio output"*) and position of switch 11 (see also section *"Appendix C: Digital Outputs"*).

Note: Switch 10 has to be in position **ACTIVE** to use digital output 2.

16   Digital output 3 (AES/EBU)

Digital output format depends on preferences (see section *"Digital audio output"*) and position of switch 11 (see also section *"Appendix C: Digital Outputs"*).

Note: Switch 10 has to be in position **ACTIVE** to use digital output 3.

17   Digital output 1 (SPDIF)

Digital output format depends on preferences (see section *"Digital audio output"*) and position of switch 11 (see also section *"Appendix C: Digital Outputs"*).

Note: Switch 10 has to be in position **ACTIVE** to use digital output 1.

Appendix B: Audionet Bass Management

The Audionet Bass Management of the VIP is configured by switches 6 and 7 on the back panel of the unit, and it works on all playback formats (incl. DVD AUDIO). If you want to use the Audionet Bass Management, you have to select the following options of the initial settings (see section *"Initial Settings"*):

- use Speaker Channel setting **EXPERT**,

- set Speaker Size for Front (**F.SP**), Center (**C.SP**) and Surround (**R.SP**) to **Large**,

- adjust [LEVEL] for all speakers to **0 dB**,

- adjust [DELAY] for all speakers to **0 msec**.

Notes:

- Speaker settings in the Initial Settings are **not** valid for DVD AUDIO-Disks. Use the **Audionet Bass Management** instead.

- For further details about how to change Initial Settings please refer to section *"Initial Settings"*.

- The settings listed above are the default settings.

To configure the Audionet Bass Management use switches 6 and 7 on the back panel of the VIP (*see section "Overview of connections, Rear view", number 6 and 7*). Therefore, you can select from four different settings:

Switch 6 "sub on"
Switch 7 "pure audio"

Front L/R:	**large**
Center:	**large**
Surround L/R:	**large**
Subwoofer:	**active**

All main channels are played back with full frequency range, and the LFE channel is routed directly to the subwoofer output. Use this setting if you want to playback all channels unchanged.

Switch 6 "sᴜʙ ɴ/ᴀ"
Switch 7 "ᴩᴜʀᴇ ᴀᴜᴅɪᴏ"

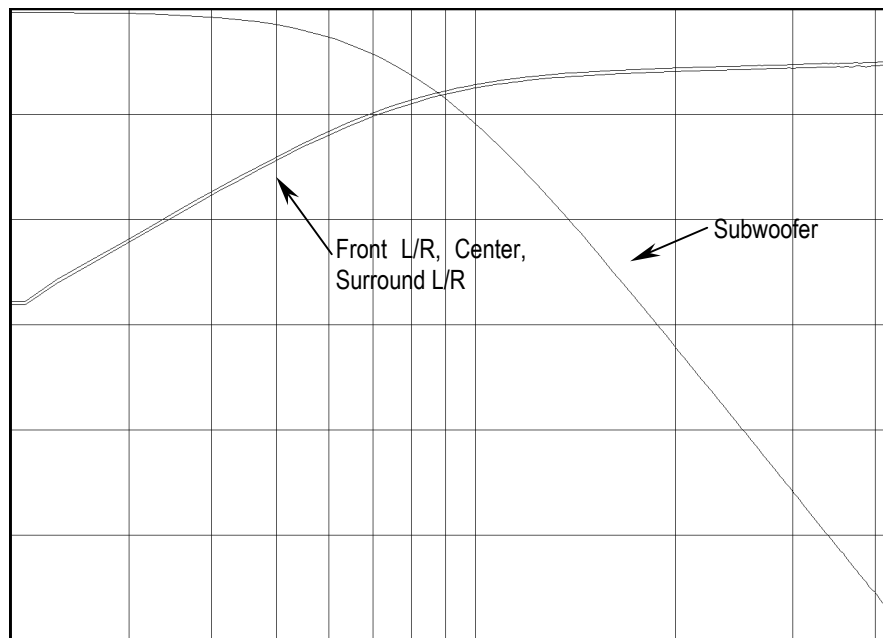Front L/R: **large**

Center: **large**

Surround L/R: **large**

Subwoofer: **not available**

All main channels are reproduced with full frequency range. As no subwoofer is available the LFE signal is divided evenly and mixed to all main channels. There will be no signal at the subwoofer output.

Switch 6 "sᴜʙ ᴏɴ"
Switch 7 "ᴄɪɴᴇᴍᴀ"

Front L/R: **small**

Center: **small**

Surround L/R: **small**

Subwoofer: **active**

All main channels are routed through a Butterworth high pass filter of 2nd order with a crossover frequency of 80Hz. The bass part of these channels is filtered by a Linkwitz-Riley low pass filter at 80Hz and mixed with the LFE channel to be routed to the subwoofer output.
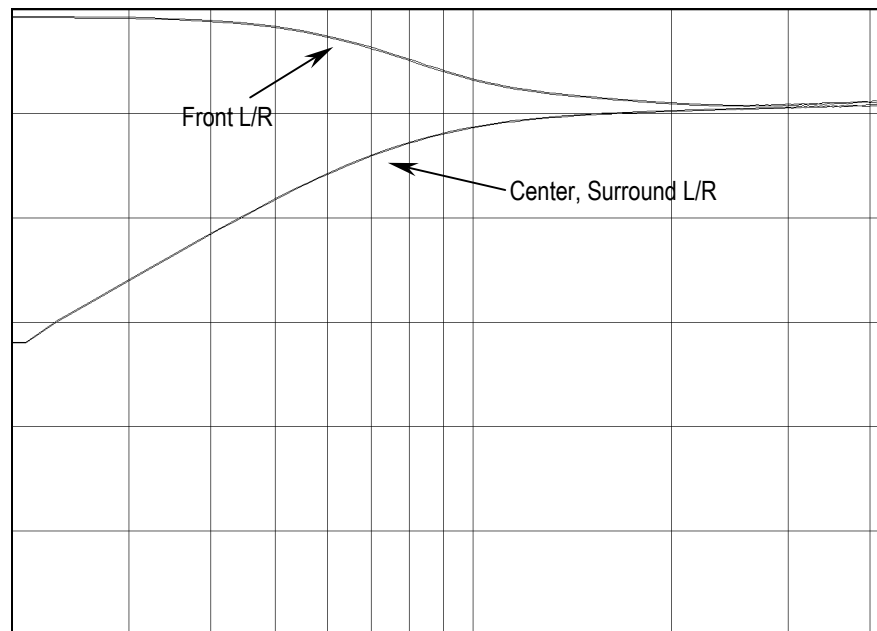

Frequency responses

Notes:

- For this configuration the gain of the active subwoofer has to 10dB greater than the gain factor of the power amplifiers for the main channels.

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Switch 6 "sυʙ ɴ/ᴀ"
Switch 7 "cɪɴᴇᴍᴀ"

Front L/R: **large**

Center: **small**

Surround L/R: **small**

Subwoofer: **not available**

The Center und both Surround channels run through a Butterworth high pass filter of 2nd order with a crossover frequency of 80Hz. The bass part of these three channels are extracted by a 4th order Linkwitz-Riley low pass filter and added to the LFE signal to be routed to both front speakers. There is no signal on the subwoofer output in this configuration.


Frequency responses

Notes:

- All filters are calculated in double precision with 48-bit resolution within a digital signal processor.

- All high pass filters are of 2nd order and Butterworth characteristics (maximum flat).

- All low pass filters are of 4th order and Linkwitz-Riley characteristics.

Delay setting   The delay for the Center channel is fixed at 1.2 msec. For the Surround channels the delay can be adjusted in 4 steps. Default is 0 msec.
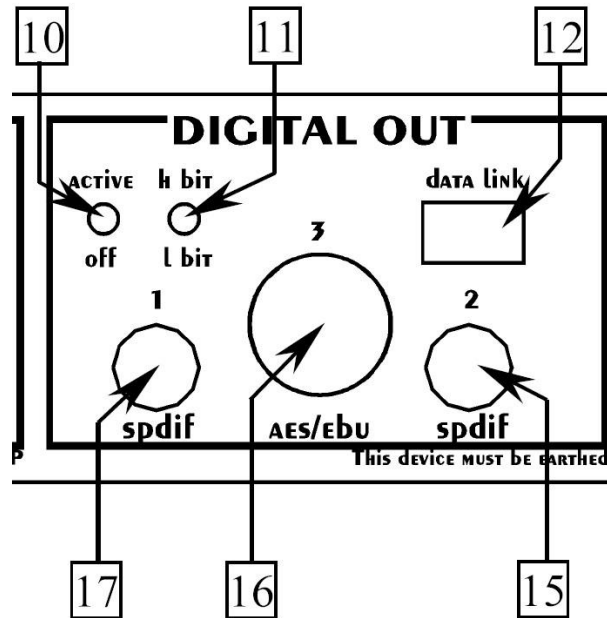
Before you can select the delay for the Surround channels the top cover of the VIP has to be removed. On the rear side inside the VIP you will find the DSP board. Use the switch marked in the picture below to adjust the delay:

Position of switch	Delay
0	0 msec
1	3 msec
2	6 msec
3	9 msec
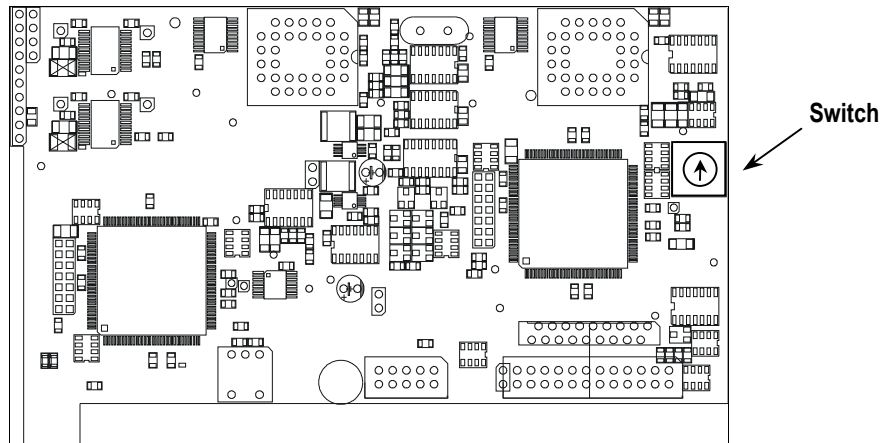
Position of switch on the DSP board

Appendix C: Digital Outputs

In order to use the digital outputs DIGITAL OUT 1 to 3 of the VIP switch ☐10 on the back plane has to be in position ᴀᴄᴛɪᴠᴇ. If it is in position **off** all digital outputs are switched **off.**

Use switch ☐11 to select the output format of the signals at the digital outputs. If in position **ʟ bɪᴛ** the VIP sends digital data in the LowBit mode. If in position **ʜ bɪᴛ** digital data is sent in the HighBit mode.

Please refer to the following tables to determine which digital format at which sample rate and resolution is available at the digital outputs. The decision whether to use HighBit or LowBit mode depends on the kind of digital receiver unit your VIP is connected to.

LowBit mode   Use the LowBit mode to connect the VIP to a unit (digital receiver) that has **no** Audionet HighBit interface. Refering to the following table, digital outputs 2 ☐15 and 3 ☐16 transmits a stereo PCM signal up to max. 96kHz for all programs except bitstreams. If you want to transmit bitstreams (Doby Digital, DTS etc), please use digital out 1 ☐17.

Program	Digital Out 1 SPDIF 17	Digital Out 2 SPDIF 15	Digital Out 3 AES/EBU 16
bitstream (Dolby Digital DTS)	bitstream (Dolby Digital DTS)	no output	no output
44.1kHz / 16bit stereo PCM	44.1kHz / 16bit stereo PCM	44.1kHz / 16bit stereo PCM	44.1kHz / 16bit stereo PCM
48kHz / 24bit stereo PCM / DVD-A	48kHz / 16bit stereo PCM	48kHz / 24bit stereo PCM	48kHz / 24bit stereo PCM
48kHz / 24bit multi channel DVD-A	no output	48kHz / 24bit stereo downmix PCM	48kHz / 24bit stereo downmix PCM
96kHz / 24bit stereo PCM / DVD-A	no output	96kHz / 24bit stereo PCM	96kHz / 24bit stereo PCM
96kHz / 24bit multi channel DVD-A	no output	96kHz / 24bit stereo downmix PCM	96kHz / 24bit stereo downmix PCM
192kHz / 24bit stereo DVD-A	no output	96kHz / 24bit stereo downsampling PCM	96kHz / 24bit stereo downsampling PCM

HighBit mode Use the HighBit mode if you want to transmit digital audio data from the VIP to an Audionet MAP V2.0 pre amplifier. With other devices a correct decoding of audio data from the Audionet HighBit interface is not possible and can lead to high level noise from your speakers.

In order to transmit digital audio data from your VIP to the Audionet pre amplifier MAP V2.0 using the Audionet Highbit interface, you have to connect digital output 1 of the VIP "Digital Out 1" 17 to the digital input "Digital In 2" of the MAP. Additionally, connect digital output "Digital Out 2" 15 of the VIP to digital input "Digital In 3" of the MAP. Only if both connections are in place and switch 11 on the back panel of the VIP is in position **h bit** you can transmit and receive digital audio data for all sample rates and resolutions!

Note: The MAP V2.0 will automatically recognise the Audionet HighBit mode if connected correctly. If the second connection is missing the

MAP will issue the error message: "HighBit Cable 2 Out of lock". In this case, please check if cabling from VIP to MAP is correct.

In HighBit mode digital output 3 16 can be used to transmit stereo data of a sampleing rate up to 48kHz with a resolution of 16bit.

Program	Digital Out 1 SPDIF 17	Digital Out 2 SPDIF 15	Digital Out 3 AES/EBU 16
bitstream (Dolby Digital DTS)	bitstream (Dolby Digital DTS)	no output	no output
44.1kHz / 16bit stereo PCM	44.1kHz / 16bit stereo Audionet HighBit mode		44.1kHz / 16bit stereo PCM
48kHz / 24bit stereo PCM/DVD-A	48kHz / 16bit stereo Audionet HighBit mode		48kHz / 16bit stereo PCM
48kHz / 24bit multi channel DVD-A	48kHz / 24bit multi channel Audionet HighBit mode		48kHz / 16bit stereo downmix PCM
96kHz / 24bit stereo PCM/DVD-A	96kHz / 24bit stereo Audionet HighBit mode		no output
96kHz / 24bit multi channel DVD-A	96kHz / 24bit multi channel Audionet HighBit mode		no output
192kHz / 24bit stereo DVD-A	192kHz / 24bit stereo Audionet HighBit mode		no output

Security advice

- Avoid packaging material, especially plastic bags, to come into children's hands.

- Store and operate the unit in a dry room at a reasonable room temperature

- Avoid moisture or any liquid to get into the unit

- Set up the unit in a sufficiently ventilated

- **Do not cover**, e.g. with a blanket

- **Do not open** the case. Unauthorised opening will cause loss of guarantee

- Avoid short circuit on outputs

- Use a dry cloth for cleaning

We would like to wish you many exciting listening experiences with your new Audionet product!

If you still have any questions, don't hesitate to ask your competent Audionet dealer or us directly.

Technical Data

Function	Universal CD and DVD audio/video player
Laser system	Semiconductor laser, 650nm and 780nm wave length
Standards	CD, CD-R, CD-RW, DVD-Audio, DVD-Video
	Dolby Digital 5.1, DTS 5.1, DTS CD, MP3, PAL, NTSC
Conversion	Main channels 24 bit, 192kHz, Multibit delta-sigma asynchronous clock decoupling
	Effect channels 24 bit, 96kHz, Multibit delta-sigma
Video	four 10 bit Video DACs, 4x oversampling, 54MHz
Sampling frequencies	44.1 kHz, 48 kHz, 88.2kHz, 96 kHz, 176.4kHz, 192 kHz
Frequency response	max. 2- 85.000 Hz (-3dB)
THD+N	typ. 0.0008%
Signal to noise ratio	>110dB
Channel separation	>115dB
Outputs, analog	6 RCA line, gold plated 2 XLR symmetric, gold plated
Outputs, digital	2 RCA, 75 Ohms, gold plated 1 AES/EBU, 110 Ohms, gold plated 1 Audionet HighBit DataLink
Outputs, Video	1 SCART 1 YUV / RGB + H/V-Sync 1 S-Video 1 Composite-Video (CVBS)
Output impedance analog	33 Ohm real
Output voltage analog	2.5 V_{RMS}
Mains	230 V, 50...60 Hz
Power dissipation	2 W stand by, max. 50 W
Dimensions	430 mm * 110 mm * 360 mm (B * H * T), 20 kg
Housing	MDF, Nextel covered Granite, steel, black

Features	
	- Universal remote control Audionet COM
	- (Optional) Progressive Scan Video Out (YUV / RGB)
	- *Advanced Intelligent Sampling*-Technology (asynchronous upsampler with 192 kHz / 24 bit)
	- Two special, switchable oversampling filters
	- Dual mono D/A-Converter for main channels
	- Disengageable digital outputs
	- Audionet HighBit interface
	- Six loudspeaker settings for multichannel DVD Audio
	- Toploader, MDF and granite chassis construction
	- Additional decoupling of transport unit and clock generator
	- Special puck made of POM
	- Separate voltage supply for transport and converter units
	- Digital- and analog circuits completely decoupled
	- Discrete ultralinear output amplifier