



DVD Standard

Instructions for Use

Owner's Reference

**DVD Standard
Instructions for Use
v 01.1**

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INFORMATION**

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This product complies with the EMC directive (89/336/EEC) and the low-voltage directive (73/23/EEC).

WARNINGS

Do not place the DVD Standard where it could be exposed to dripping or splashing.

Do not remove or bypass the ground pin on the end of the AC cord. This may cause radio frequency interference (RFI) to be introduced into your playback system.

The ventilation grids on the top and bottom of the DVD Standard must be unobstructed at all times during operation. Do not place flammable material on top of or beneath the component.

Turn off all systems' power before connecting the DVD Standard to any component. Make sure all cable terminations are of the highest quality, free from frayed ends, short circuits, or cold solder joints.

Caution: Visible and invisible laser radiation. When the cover is open, avoid exposure to beam.

This unit employs a laser. To prevent possible eye injury, only a qualified service person should remove the cover or attempt to service this device. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

THERE ARE NO USER-SERVICEABLE PARTS INSIDE ANY KRELL PRODUCT.

Please contact your authorized dealer, distributor, or Krell if you have any questions not addressed in this reference manual.

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Introduction

Thank you for your purchase of the Krell DVD Standard.

The DVD Standard is designed to provide the finest Digital Video Disc image available, allowing you to seamlessly integrate the DVD Standard with the highest quality video display devices. The DVD Standard's tremendous and carefully regulated power supply results in picture stability even during line fluctuations. Advanced drive mechanisms provide superior disc reading capabilities.

The DVD Standard, Krell's first video source component, is engineered with the latest technology from Faroudja Laboratories, widely recognized as a video technology leader. The FLI 2200 line doubler together with the FLI 2220 enhancer support progressive scan (480p) video signals, producing a video image for standard and wide screens that is bright, detailed, and free of any motion artifact. The DVD Standard has progressive scan video connections as well as standard component, S-video, and composite video connections. The RGB/YPbPr switch provides maximum flexibility for progressive scan connections.

The DVD Standard wireless infrared remote control and RS-232, RC-5, and 12 VDC remote connection options on the back panel allow you to integrate the DVD Standard into advanced control systems. The user-friendly setup menu provides a variety of audio, video, and access control options for optimum configuration and enjoyment of your DVD Standard and home theater system.

This owner's reference manual contains important information on placement, connection, and operation of your DVD Standard. Please read this information carefully. A thorough understanding of these details will help ensure satisfactory operation and long life for your DVD Standard and related system components.

Definition of Terms

Following are the definitions of key terms used in your owner's reference manual.

INPUT AND OUTPUT CONNECTIONS

Balanced

A symmetrical input or output circuit that has equal impedance from both input terminals to a common ground reference point. The industry standard for professional and sound recording installations, balanced connections have 6 dB more gain than single-ended connections and allow the use of long interconnect cables. Balanced connections are more immune to induced noise from the system or the environment.

Single-ended

A two-wire input or output circuit. Use care when using single-ended connections. Turn the system off prior to making or breaking single-ended connections. Single-ended connections are not recommended for connections requiring long cable runs.

OPERATION

Off

When the AC power cord is unplugged from the AC power source, the component is off.

Stand-by Mode

When the DVD Standard is connected to AC power, the red stand-by LED illuminates. This indicates that the component is in stand-by mode, a low power consumption status that keeps the audio and regulator circuits at idle. Krell recommends leaving the component in the stand-by mode when not playing a disc.

Operational Mode

When the power button on the front panel or power key on the remote control is pressed and the blue power LED illuminates, the component is in the operational mode and ready to play a disc.

Definition of Terms

VIDEO TECHNOLOGY

Composite Video

An encoded video signal that includes horizontal and vertical synchronizing information.

Component Video

A video signal that uses three wires to convey luminance (Y), red minus luminance (R-Y), and blue minus luminance (B-Y) signals.

Progressive Scan Video

Video signals (noninterlaced) that build screen content in one pass rather than the two passes required for standard (interlaced) video. This technology eliminates motion artifact and screen line and produces film-quality pictures.

RGB

Red, green, and blue, the three primary colors used in video processing.

S-Video

Video signal that separately transmits the color and luminance components of the video signal but does not use three separate wires as does component video.

YPbPr

One way of designating color difference signals. Y = the luminance signal, Pb = the red minus luminance (R-Y) signal, and Pb = the blue minus luminance (B-Y) signal.

Unpacking

Follow these steps to safely unpack your DVD Standard:

1. Open the shipping box and remove the top layer of foam. You see these items:
 - 1 Krell DVD Standard
 - 1 IEC connector (AC power) cord
 - 1 12 VDC (12 V trigger) cable
 - 1 DVD remote control
 - 1 CR2025 lithium battery
 - 1 packet containing the owner's reference manual, the RS-232 port developer's reference, and the warranty registration card.
2. Grasp the underside of the foam end-caps that encase the DVD Standard and lift it straight out of the shipping box.
3. Place the DVD Standard in a safe location and remove the end-caps and protective plastic wrapping.

Only one person needed.

Notes

If any of these items are not included in the shipping box, please contact your authorized Krell dealer, distributor, or Krell for assistance.

*Save all packing materials. If you ship your DVD Standard in the future, repack the unit in its original packaging to prevent transit damage. See **Return Authorization Procedure**, on page 58, for more information.*

Placement

Before you install the DVD Standard into your system, review the following guidelines to choose the location for the component. This will facilitate a clean, trouble-free installation. The DVD Standard does not require any type of special rack or cabinet for installation.

Place the DVD Standard on a firm, level surface, away from excessive heat, humidity, or moisture. The DVD Standard requires at least two inches (5 cm) of clearance on each side and at least two inches (5 cm) of clearance above and below the component to provide adequate ventilation. Installations inside cabinetry may need extra ventilation.

Note

The DVD Standard incorporates an advanced suspension system and does not require additional mass coupling or isolation. You may experiment with feet or cones as long as they are not permanently affixed to the unit. Any unauthorized modifications to the unit or electronics will void the warranty.

IMPORTANT

Do not attach enhancement accessories such as rings, mats, or dampers to individual discs. These accessories may interfere with the disc transport, resulting in erratic playback and/or poor performance.

AC Power Guidelines

The DVD Standard has superb regulation and does not require a dedicated AC circuit. Operate the DVD Standard only with the power cord supplied.

Avoid connections through extension cords or multiple AC adapters. High quality 15 amp grounded AC strips are acceptable. High quality AC line conditioners or filters may be used if they are grounded and meet or exceed the unit's power supply rating of 100 VA.

Please contact your Krell dealer, distributor, or Krell before using any device designed to alter or stabilize the AC power for the DVD Standard.

Getting Started

READ THIS FIRST

To connect the DVD Standard to your video monitor, you need to: connect to AC power, choose your video format, choose and then connect video outputs, and configure the DVD Standard to match your television format. These steps are explained below.

IMPORTANT

Match the video format (NTSC/PAL) of the monitor and the video signal of the DVD Standard to avoid a distorted picture.

Step 1

Connect to AC Power

Plug the AC cord into the wall outlet. The red stand-by LED (3) illuminates.

Step 2

Choose the Video Format

Set the NTSC/PAL switch (25) on the back panel to the format that matches your video monitor. See your monitor's owner's manual for information.

IMPORTANT

The NTSC/PAL switch is active only when the DVD Standard is in the stand-by mode. Changing the switch position while the component is in the operational mode will not change the video format.

Step 3

Choose and Connect the Video Outputs

Choose the output that matches your video monitor. The DVD Standard supports both progressive scan video (noninterlaced) and standard video (interlaced) outputs. Options for each are explained on the following pages.

The component YPbPr outputs will provide the best quality picture when connected to a television capable of accepting a 480p signal. This includes most plasma, D-ILA, DLP, and HDTV ready televisions.

Progressive Scan (Noninterlaced) Video Outputs

The DVD Standard supports progressive scan (480p) video signals. Progressive scan builds video screen content in one pass (as opposed to two passes for nonprogressive or interlaced video), thus providing better quality picture. Progressive video can also be connected to a computer monitor.

The following table details the different progressive video signals, connectors, labels, and formats supported by the DVD Standard.

Note

To use the progressive scan video outputs on the DVD Standard, the television or video monitor must have a 31.5 kHz horizontal scan rate and a progressive or 480p video input.

Video Signal	Type of Connector	Most Commonly Labeled As	Format Standard
RGB	BNC	RGB video, sync on green	NTSC or PAL
RGB, HSYNC, VSYNC	BNC	RGB video, component sync	NTSC or PAL
VGA	Computer-type VGA connector (DB-15)	VGA, computer, PC, DB-15	NTSC or PAL
Component (YPbPr)	RCA	Component video, YPbPr, YCbCr, 480p, progressive	NTSC or PAL

All of the progressive video outputs should be of comparable quality. Multiple formats are provided for compatibility with various televisions, monitors, and projectors. The DVD Standard has maximum progressive scan flexibility. You can send a progressive signal to any of the three connectors. For example, if the RGB/YPbPr switch is set to RGB, then the RGB, YPbPr, and DB-15 outputs will all output RGB signals.

IMPORTANT

The RGB/YPbPr switch is active only when the DVD Standard is in the stand-by mode. Changing the switch position while the component is in the operational mode will not change the video output format.

See **Back Panel Description**, on page 15, for more information about progressive scan video outputs.

Standard (Interlaced) Video Outputs

The DVD Standard also features standard composite, S-video, and component connections.

The following table details the different standard video signals, connectors, labels, and formats supported by the DVD Standard.

Video Signal	Type of Connector	Most Commonly Labeled As	Format Standard
Standard Composite	Single-ended RCA	Video, Composite	NTSC or PAL
Standard S-Video	4 pin mini-DIN	S, SV, S-Video	NTSC or PAL
Standard Component	Single-ended RCA	Component, YPbPr, YCbCr	NTSC or PAL

Choosing A Standard Video Signal

This section describes the three standard video options.

Component Video. Choose the component connection for video monitors that have component (YPbPr or YCbCr) connections. Component video is the most accurate standard video signal, using three wires to convey luminance, red minus luminance, and blue minus luminance signals. These signals bypass television circuitry required to process S-video signals, eliminating cross-color contamination and resulting in more reliable, correct color.

S-Video. Choose the S-video connection for video monitors that have S-video connections but do not have component connections. S-video separately transmits the color and luminance components of the video signal but does not use three separate wires as does component video. The S-video signals bypass television circuitry required by composite video, reducing cross-contamination of color and black and white signals, and reducing video noise.

Composite Video. Choose the composite connection for video monitors that are not equipped with component video or S-video.

Step 4

Configure TV Type

Configure the DVD Standard to match your television aspect ratio (4:3 standard or 16:9 wide-screen) through the setup menu. Follow these steps:

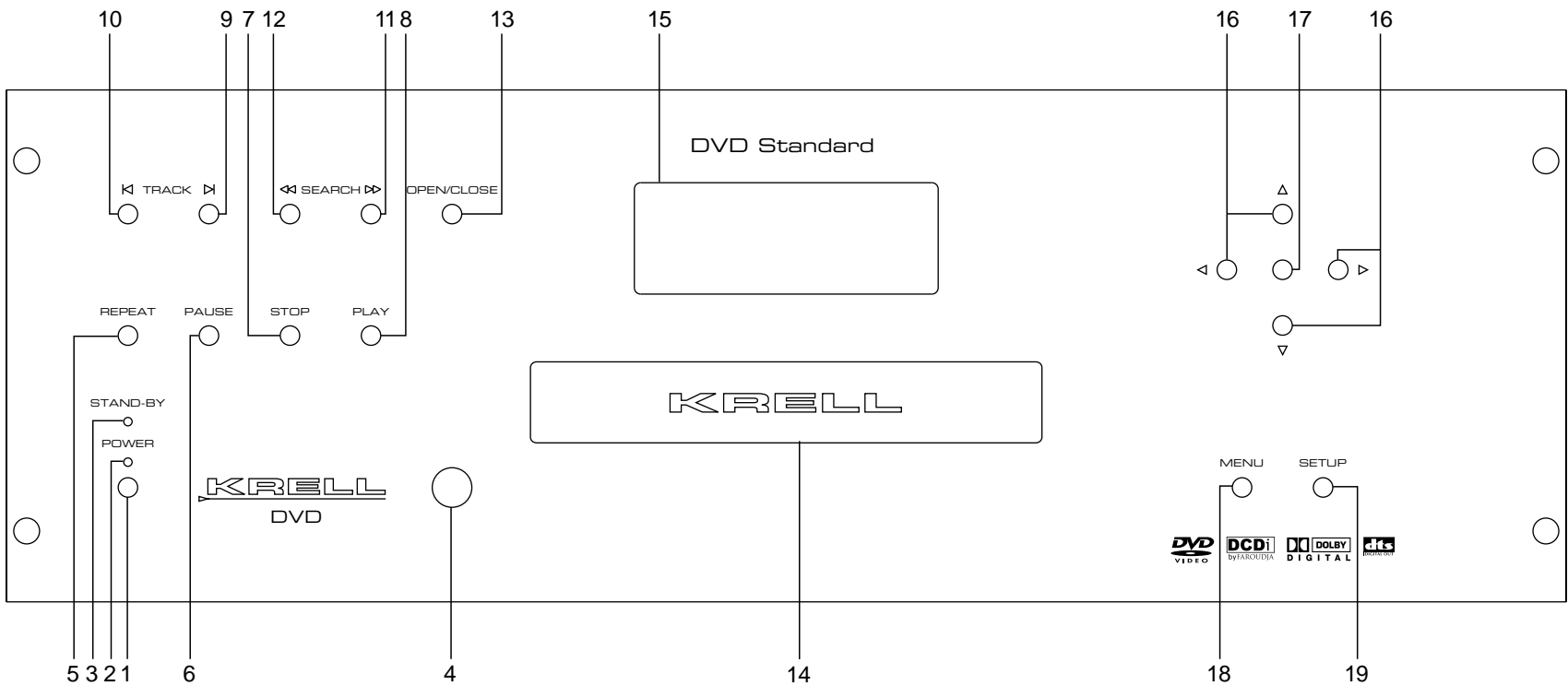
- a. Turn on your television or video monitor.
- b. Press the power button (1) or key (38) on the DVD Standard. The blue power LED (2) illuminates.
- c. Press the setup button on the front panel (19) or the setup key on the remote control (44). The setup menu appears on the video display. The configuration option is highlighted.
- d. Press the ► button (16) or key (45) to reveal configuration options.
- e. Press the ▲ button (16) or key (45) to select TV TYPE. Choose standard screen size 4:3 LT (letterbox with black box at the top and bottom margin of the screen), standard screen size 4:3 PS (pan and scan picture extends to the screen margins) or 16:9 (wide-screen).
- f. Press the setup button or key to exit the setup menu.

IMPORTANT

Stop disc playback before changing the aspect ratio. Changes will not take effect while disc is being played.

After you have connected and configured your video monitor and the DVD Standard, you're ready to connect the rest of your system. See ***Connecting the DVD Standard to Your System***, on page 25.

Figure 1 The DVD Standard Front Panel



Power

- 1 Power Button
- 2 Power LED
- 3 Stand-by LED
- 4 Infrared Sensor

Disc Functions

- 5 Repeat Button
- 6 Pause Button
- 7 Stop Button
- 8 Play Button
- 9 Track Forward Button
- 10 Track Back Button
- 11 Search Forward Button
- 12 Search Back Button
- 13 Open/Close Button
- 14 Disc Transport
- 15 Front Panel Display

Menu and Setup Functions

- 16 Directional Buttons
- 17 Enter Button
- 18 Menu Button
- 19 Setup Button

Front Panel Description

See Figure 1 on page 10

POWER

1 Power Button

Use this button to switch the DVD Standard from the stand-by to the operational mode.

2 Power LED

The blue power LED illuminates when the DVD Standard is in the operational mode.

3 Stand-by LED

The red stand-by LED illuminates when the DVD Standard is plugged into AC power and is in the stand-by mode.

4 Infrared Sensor

The infrared sensor receives commands from the DVD Standard remote control. For proper remote control operation, make sure the infrared sensor is not covered or obstructed.

DISC FUNCTIONS

5 Repeat Button

Use this button to activate the repeat options, which include:

ALL REPEAT	(repeats entire disc)
TITLE REPEAT	(repeats all chapters in current title)
CHAPTER REPEAT	(repeats currently playing chapter)
REPEAT OFF	(clears repeat function)

The repeat option appears briefly in the upper left corner of the video display. The last item scrolled to is automatically selected. To clear the repeat command:

- select REPEAT OFF from the repeat menu
- press the stop button or key twice
- press the clear button or key
- press the power button or key to place the component in the stand-by mode.

6 Pause Button

Use this button to pause disc playback. The video display indicates PAUSE in the top right corner. To resume playback, press the pause or play button or key.

DISC FUNCTIONS

7 Stop Button

Use this key to stop DVD playback. The video display shows the following message:

WHEN PLAY IS PUSHED, THE PLAYER WILL PLAY FROM WHERE YOU STOPPED. TO START FROM THE BEGINNING, PRESS STOP AGAIN.

8 Play Button

Use this button to begin or resume DVD playback.

9 Track Forward Button

Use this button to move forward one chapter or track. The upper left corner of the video display shows SEARCH and the currently playing chapter or track number.

10 Track Back Button

Use this button to move back one chapter or track. The upper left corner of the video display shows SEARCH and the currently playing chapter or track number.

11 Search Forward Button

Use this button to access the two fast-forward playback modes when in the play mode. Press once: the right corner of the video display shows FF1. Press again: the screen shows FF2. Use the search forward button to switch between the slower (FF1) and faster (FF2) modes. Press the play button or key to resume normal playback. Also use this button for single step forward when in the pause mode.

12 Search Back Button

Use this button to access the two fast-reverse playback modes when in the play mode. Press once: the right corner of the video display screen shows FR1. Press again: the screen shows FR2. Use the search back button to switch between the slower (FR1) and faster (FR2) modes. Press the play button or key to resume normal playback. Also use this button for single step forward when in the pause mode.

13 Open/Close Button

Use this button to open and close the disc transport.

14 Disc Transport

The disc transport holds the DVD.

15 Front Panel Display

The front panel display shows currently playing title and chapter numbers, elapsed time, repeat mode, and disc status.

**MENU AND SETUP
FUNCTIONS**

16 Directional Buttons

Use these buttons to navigate the disc and setup menus.

17 Enter Button

Use this button to set selected menu or program items.

18 Menu Button

Use this button to access the disc menu. Use the directional buttons or keys to move through the menu. Press enter to select the desired menu item. Disc playback pauses automatically when you enter the menu.

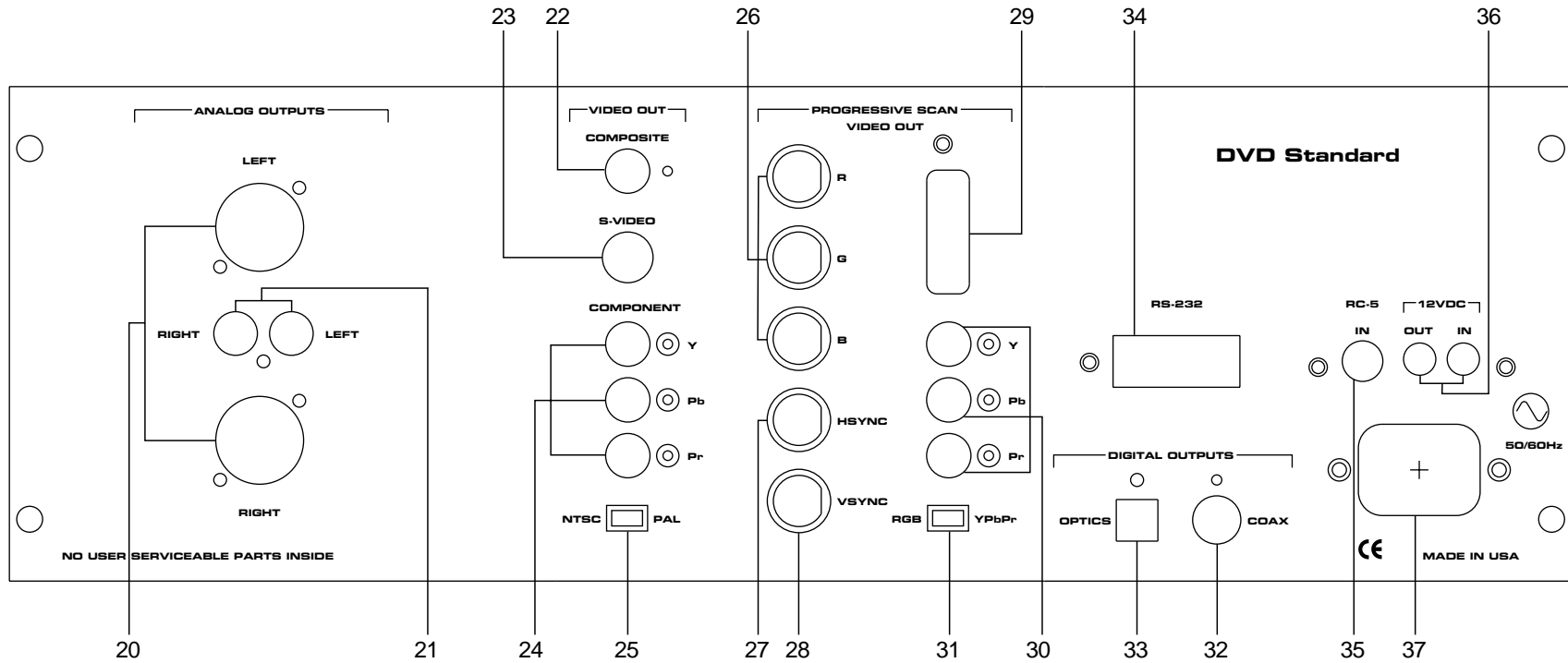
19 Setup Button

Use this button to access the DVD Standard setup menu. The setup menu allows you to customize your DVD Standard configuration, display, and audio, and to set parental controls. Press the setup button again to exit the setup menu. See **System Setup**, on page 31, for information on customizing the DVD Standard.

Note

You can access the setup menu during disc playback. The material will play in the background while you adjust settings.

Figure 2 The DVD Standard Back Panel



Analog Audio Outputs

- 20 Left and Right Balanced Audio Outputs
- 21 Left and Right Single-ended Audio Outputs

Standard Video Outputs

- 22 Composite Standard Video Output
- 23 S-Video Standard Video Output
- 24 Component Standard Video Output
- 25 NTSC/PAL Switch

Progressive Scan Video Outputs

- 26 Progressive 480p Video Outputs R, G, and B
- 27 HSYNC 480p Horizontal Sync Output
- 28 VSYNC 480p Vertical Sync Output
- 29 DB-15 Progressive RGB/YPbPr Output
- 30 Progressive Video Outputs Y, Pb, and Pr
- 31 RGB/YPbPr Switch

Digital Audio Outputs

- 32 Coaxial Digital Output
- 33 Optics Digital Output

Remote Connections

- 34 RS-232 Communication Port
- 35 RC-5 In
- 36 12 VDC Out and In

Power

- 37 IEC Connector

Back Panel Description

See Figure 2 on page 14

ANALOG AUDIO OUTPUTS

20 Left and Right Balanced Audio Outputs

The DVD Standard is equipped with one pair of left and right balanced analog audio outputs via XLR connectors.

21 Left and Right Single-ended Audio Outputs

The DVD Standard is equipped with one pair of left and right single-ended analog audio outputs via RCA connectors.

STANDARD VIDEO OUTPUTS

22 Composite Standard Video Output

The DVD Standard is equipped with a composite standard video output via an RCA connector.

23 S-Video Standard Video Output

The DVD Standard is equipped with an S-video output via a 4 pin mini-DIN connector.

24 Component Standard Video Output

The DVD Standard is equipped with a component standard video output via RCA connectors. Component video uses three wires (labeled Y, Pb, and Pr on the back panel) to convey the video signal.

25 NTSC/PAL Switch

The DVD Standard is equipped with a switch to set the video format of the video signal to NTSC or PAL.

PROGRESSIVE SCAN VIDEO OUTPUTS

26 Progressive 480p Video Outputs R, G, and B

The DVD Standard is equipped with a progressive RGB video output via BNC connectors.

Note

If you playback Macrovision-encoded DVDs using the RGB outputs, the resulting picture will be tinged with green. Macrovision does not support the RGB format.

**PROGRESSIVE SCAN
VIDEO OUTPUTS,
continued**

27 HSYNC 480p Horizontal Sync Output

The DVD Standard is equipped with an HSYNC Horizontal Sync Output that works with the Progressive 480p Video Output. HSYNC and VSYNC are the component sync signals for the progressive RGB outputs.

28 VSYNC 480p Vertical Sync Output

The DVD Standard is equipped with a VSYNC Vertical Sync Output that works with the Progressive 480p Video Output. HSYNC and VSYNC are the component sync signals for the progressive RGB outputs.

29 DB-15 Progressive RGB/YPbPr Output

The DVD Standard is equipped with a DB-15 connector for connection to a computer monitor or video monitor.

30 Progressive Video Outputs Y, Pb, and Pr

The DVD Standard is equipped with progressive scan video outputs Y, Pb, and Pr via RCA connectors.

31 RGB/YPbPr Switch

Use this switch to select RGB or YPbPr modes.

IMPORTANT

If the RGB/YPbPr switch is set for RGB, then all the progressive video outputs will output RGB signals. If the switch is set for YPbPr, all the progressive video outputs will output YPbPr signals.

Note

The RGB/YPbPr switch is active only when the DVD Standard is in the stand-by mode. Changing the switch position while the component is in the operational mode will not change the video format.

**DIGITAL AUDIO
OUTPUTS**

32 Coaxial Digital Output

The DVD Standard is equipped with one S/PDIF coaxial digital audio output via an RCA connector.

33 Optics Digital Output

The DVD Standard is equipped with one EIAJ optics digital audio output via a TosLink connector.

**BACK PANEL
REMOTE
CONNECTIONS**

34 RS-232 Communication Port

The DVD Standard is equipped with an RS-232 communication port, which receives messages from a computer-based control system, providing more intelligent control of the DVD Standard. For more information, see *RS-232 Port: Sending Commands and Interpreting Data*, the developer's reference shipped with the DVD Standard.

35 RC-5 In

The RC-5 input makes custom installation easy and secure by accepting baseband RC-5 commands from hardwired remote controllers.

Back Panel Description, continued

**BACK PANEL
REMOTE CONNECTIONS,
continued**

36 12 VDC Out and In

The 12 VDC output sends a 12 Volt power on/off signal to other Krell components via a 12 V cable, as well as to other devices that incorporate a 12 V power on/off trigger input. The 12 VDC input receives 12 Volt power on/off signals from other Krell components and devices that incorporate a 12 V trigger. The 12 VDC out and in connections let you control the operational and stand-by modes of components with 12 V triggers allowing whole systems or parts of systems to be easily coordinated.

Notes

When the DVD Standard is in the operational mode, 12 VDC output provides 12 V of DC output. When the DVD Standard is in the stand-by mode or off, DC output is 0 V.

12 VDC Out (12 V trigger) current is limited to 30 mA.

Consult the owner's manual of each component used in a custom installation to take full advantage of the DVD Standard's remote capability.

POWER

37 IEC Connector

The DVD Standard is equipped with a standard female IEC power connector, for use with the AC power cord.

Figure 3 The DVD Standard Remote Control

Power

38 Power Key

Advanced Disc Functions

39 Audio Key
 40 Subtitle Key
 41 Angle Key
 42 Title Key

Menu and Setup Functions

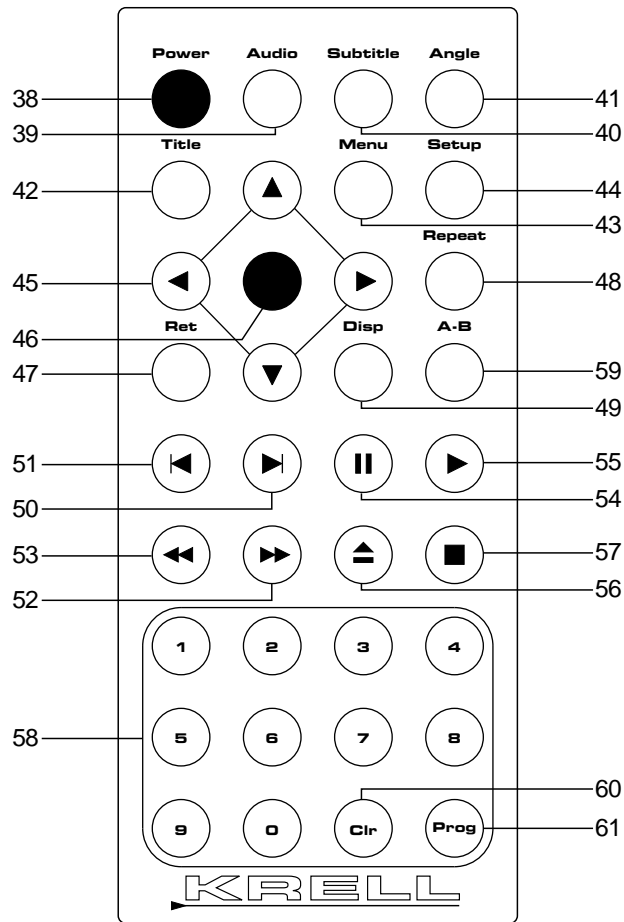
43 Menu Key
 44 Setup Key
 45 Directional Keys
 46 Enter Key
 47 Ret(urn) Key

Disc Functions

48 Repeat Key
 49 Disp(lay) Key
 50 Track Forward Key
 51 Track Back Key
 52 Search Forward Key
 53 Search Back Key
 54 Pause Key
 55 Play Key
 56 Open/Close Key
 57 Stop Key
 58 Numeric Keys
 59 A-B Key

Programming Functions

60 Clr (Clear) Key
 61 Prog(ram) Key



Remote Control Description

See Figure 3 on page 19

Battery Installation and Removal

The DVD Standard remote control uses one CR2025 lithium battery, which is included with the shipment.

To open the battery compartment on the back of the remote control:

1. Place the remote face down on the table.
2. Use your thumbnail or a small jeweler's or eyeglass screwdriver to move the small tab toward the center of the remote, while using your index fingernail or screwdriver to pull down gently on the slot to the right of the tab. The battery compartment will slide out.
3. Place the battery, positive (+) side up, in the battery tray.
4. Slide battery compartment back into the remote until you hear a click.

The remote control is ready for operation.

Notes

Do not use a knife or other sharp object to open the battery compartment; they will scratch the remote control finish.

Replace batteries when remote control function becomes intermittent.

Remove batteries if the remote control is not used for a long time. Battery leakage can damage the remote control.

Remote Control Functions

The DVD Standard remote control provides power, standard and advanced disc functions, and setup and programming functions. A description of the remote control keys for the DVD Standard follows.

POWER

38 Power Key

Use this key to switch the DVD Standard from the stand-by to the operational mode. The blue power LED on the front panel illuminates.

ADVANCED DISC FUNCTIONS

39 Audio Key

Use this key to cycle between the languages available on the disc soundtrack. Options appear in the upper left corner of the video display. The last item scrolled to is automatically selected.

Remote Control Functions, continued

**ADVANCED DISC
FUNCTIONS, continued**

40 Subtitle Key

Use this key to activate subtitles on the currently playing disc. Options for turning subtitles off and on, and the subtitle languages available are displayed on the screen. Use the directional buttons or keys to navigate and press the enter button or key to set the selection.

Note

Using this key does not change the subtitle options selected in the setup menu.

41 Angle Key

Use this key to select alternate camera angles, when they are available on the disc.

42 Title Key

Use this key to access the title menu.

Note

For most discs, when you press the title key, the title menu for the current title will appear. Many video discs have only one title: when you press the title key, the disc menu will appear. If the title key does not function with the disc you are playing, use the menu button or key instead.

**MENU AND SETUP
FUNCTIONS**

43 Menu Key

Use this key to access the beginning disc menu. Use directional buttons or keys to move through the menu and press enter to select the desired menu item. Playback will pause when you enter the menu.

44 Setup Key

Use this key to access the DVD Standard setup menu. The setup menu allows you to customize your DVD Standard configuration, display, and audio, and to set parental controls. Press the setup button again to exit the setup menu. See **System Setup**, on page 31, for information on customizing the DVD Standard.

45 Directional Keys

Use these keys to navigate disc menus.

46 Enter Key

Use this key to accept selected menu or program items.

47 Ret(urn) Key

Use this key to navigate interactive menus.

DISC FUNCTIONS

48 Repeat Key

Use this key to activate the repeat options, which include:

ALL REPEAT	(repeats entire disc)
TITLE REPEAT	(repeats chapters in current title)
CHAPTER REPEAT	(repeats currently playing chapter)
REPEAT OFF	(clears repeat function)

The repeat option appears briefly in the upper left corner of the video display. The last item scrolled to is automatically selected. To clear the repeat command:

- select REPEAT OFF from the repeat menu
- press the stop button or key twice
- press the clear button or key
- press the power button or key to place the component in the stand-by mode.

49 Disp(lay) Key

Use this key to display title and chapter numbers and to scroll through time modes. The current title and chapter number will appear on the top left corner of the video display. The display options, shown in the right corner, are:

1. Press once: elapsed time of chapter.
2. Press again: remaining time of chapter.
3. Press again: elapsed time of title.
4. Press again: remaining time of title.
5. Press again: display feature turns off.

DISC FUNCTIONS, continued

50 Track Forward Key

Use this key to move forward one chapter or track. The upper left corner of the video display shows SEARCH and the currently playing chapter or track number.

51 Track Back Key

Use this key to move back one chapter or track. The upper left corner of the video display shows SEARCH and the currently playing chapter or track number.

52 Search Forward Key

Use this key to access the two fast-forward playback modes when in play mode. Press once: the right corner of the video display shows FF1. Press again: the screen shows screen shows FF2. Use the search forward button to switch between the slower (FF1) and faster (FF2) modes. Press the play button or key to resume normal playback. Also use this key for single step forward when in the pause mode.

53 Search Back Key

Use this key to access the two fast-reverse playback modes when in play mode. Press once: the right corner of the video display shows FR1. Press again: the screen shows FR2. Use the search back button to switch between the slower (FR1) and faster (FR2) modes. Press the play button or key to resume normal playback. Also use this key for single step forward when in the pause mode.

54 Pause Key

Use this key to pause disc playback. The video display indicates PAUSE in top right corner. To resume playback, press the pause or play button or key.

55 Play Key

Use this key to begin or resume disc playback.

56 Open/Close Key

Use this key to open and close the disc transport.

57 Stop Key

Use this key to stop disc playback. The video display shows the following message:

WHEN PLAY IS PUSHED, THE PLAYER WILL PLAY FROM WHERE YOU STOPPED. TO START FROM THE BEGINNING, PRESS STOP AGAIN.

Remote Control Functions, continued

DISC FUNCTIONS, continued

58 Numeric Keys

Use the numeric keys to select a disc track. During playback, when you press a numeric key, the screen displays TITLE/CHAPTER SEARCH. Enter the number of the desired chapter or title. Use the clear key to change an entry. When the desired chapter or title is displayed, press enter. Playback resumes at the selected chapter or title.

Note

This feature will not let you enter any chapter or title not available on the disc.

**PROGRAMMING
FUNCTIONS**

59 A-B Key

Use this key to create a playback loop between two predetermined points within a single track or sequential tracks. See **How to Create an A-B Loop**, on page 29.

60 Clr (Clear) Key

Use this key to clear the last numeric key entry, to clear an A-B loop setting, or to clear an entry on the program grid.

61 Prog(ram) Key

Use this key to program a playback sequence. See **How to Write a Program**, on page 27, for more information.

Connecting the DVD Standard to Your System

USING BALANCED CONNECTIONS

Krell recommends using balanced interconnect cables. Balanced interconnect cables not only can minimize sonic loss but are also less sensitive to induced noise, especially with installations using long cables. Balanced connections have 6 dB more gain than single-ended connections. When level matching is critical, keep this gain value in mind.

Connection Steps

This section provides information about connecting your DVD Standard to other components in your system. The DVD Standard is equipped with a variety of connection options, for ease of integration into your home theater system.

Follow these steps to connect the DVD Standard to your system.

1. Make sure all power sources and components are off before connecting inputs and outputs.
2. Neatly organize the wiring between the DVD Standard and all system components. Separate AC wires from audio cables to prevent hum or other unwanted noises from being introduced into the system.
3. Connect the input of your video components to the appropriate output of the DVD Standard. See **Getting Started**, on page 6, for information on ensuring that your video monitor and settings are compatible with the DVD Standard.
4. Connect the balanced or single-ended analog outputs.
5. Plug the AC power cord into the IEC connector (37) on the back panel, then plug the AC power cord into the wall socket. The red stand-by LED (3) on the front panel illuminates.

Operating Your DVD Standard

This section provides information about operating the DVD Standard.

After the DVD Standard is connected to the video monitor and other system components, it is ready for operation.

On/Off/Stand-by

1. Insert the AC power cord into the IEC power connector (37) on the DVD Standard. Insert the other end into the AC wall receptacle. The red stand-by LED (3) illuminates.
2. Press the power button (1) or key (38). The blue power LED (2) on the front panel illuminates. The DVD Standard is in the operational mode. The disc transport is active.
3. To return to the stand-by mode, press the power button or power key again. The red stand-by LED illuminates.

Note

Krell recommends leaving the DVD Standard in the stand-by mode when not playing a disc.

COMPATIBLE DISCS

The DVD Standard can play the following discs:

- DVD 12CM single- or double-sided, 1 or 2 layer
- DVD 8CM single- or double-sided, 1 or 2 layer
- Video CD 12CM single-sided
- Video CD 8CM single-sided
- CD-DA 12CM single-sided
- CD-DA 8CM single-sided
- CD-R 12CM single-sided

How to Play a Disc

1. Press the open/close button (13) or key (56) to open the disc transport (14).
2. Place the disc on the transport.
3. Press the open/close button or key again to close the disc transport.
4. Playback begins from the first track.
5. Press the stop button (7) or key (57) to end disc playback.

Notes

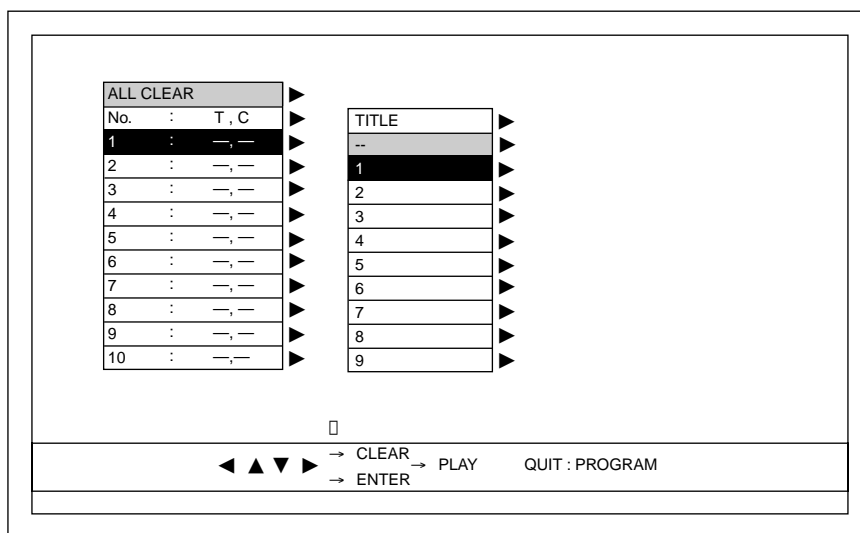
Adjust the volume level through your system volume control.

*See **Front Panel Description**, on page 11, and **How to Write a Program**, on page 27, for more information on disc playback options.*

How to Write a Program

At the bottom of the program screen is a box with directions for navigating the program box.

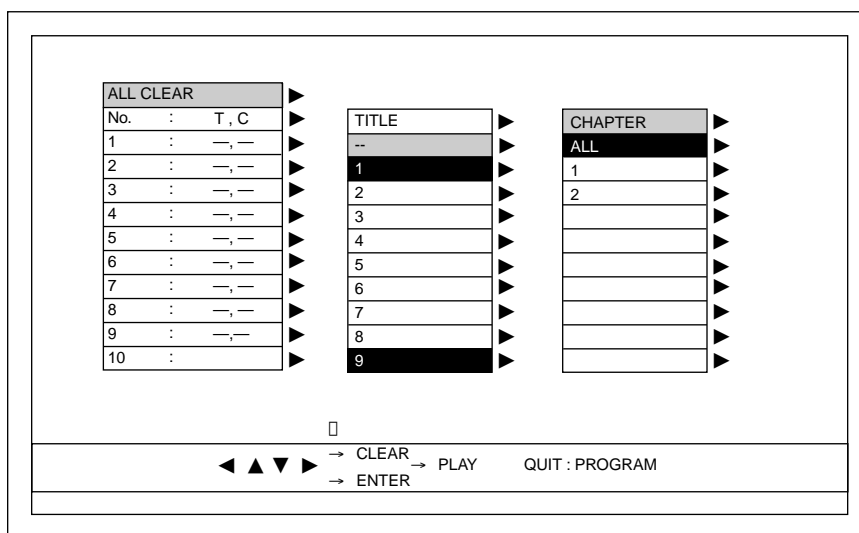
1. Press the program key (61). The video display shows a program box with spaces to enter the title and chapter numbers for each program track. The first program track is highlighted (yellow).



2. Use the ► directional button (16) or key (45) to select the title(s) and chapter(s) for the first program track. Use the clear key (60) to erase a selection, or press the ▲ directional button (16) or key (45) and scroll to the top of the program box, to select ALL CLEAR.
3. Press the enter button (17) or key (46) to set the selection.
4. Use the directional buttons or keys and the enter button or key to select additional program tracks.

How to Write a Program,
continued

- When you press the ► directional button or key, the title submenu appears. Scroll down to 9 and press ► again. The chapter submenu appears (entries vary according to what is available on the current disc).



- When all program tracks are selected, press the play button (8) or key (55) to begin playback of the program sequence.

How to Create an A-B Loop

1. When you see or hear the selection that you want as the beginning of the loop, press the A-B key (59) to insert the start position. REPEAT A appears on the video display.
2. When you see or hear the selection you want as the end of the loop, press the A-B key again to insert the finish position. REPEAT A-B appears on the video display.
3. Playback of the loop begins automatically and continues until you press the clear key (60). REPEAT OFF appears on the video display.

Note

You can pause and resume play within an A-B loop the same as during normal playback.

System Setup Overview

This page outlines the System Setup Menu and briefly describes its features. This easy to follow menu lets you customize your DVD Standard for optimum operation. You can select from the following options:

- Config(uration)
- Faroudja
- Audio
- Parental (Control)

Config

The configuration menu lets you match your video monitor to the DVD Standard, select different brightness and contrast standards, and select languages for audio track, subtitles, and DVD menu. This menu also lets you prepare your DVD Standard for a software upgrade.

Faroudja

The Faroudja display menu options allow you to customize your DVD Standard video performance.

Audio

The audio menu lets you match the DVD Standard to your system's digital output capabilities, select audio output, and select the data rate that is compatible with your system.

Parental

The parental control menu lets you set and change an access password, as well as set allowable viewing levels and standards, for control of what is played on the DVD Standard even if you are not present.

System Setup

Access to the setup menu is available through the front panel setup button or through the remote control.

The only system setup you need to complete before playing your DVD Standard is configuring television type. See **Getting Started**, on pages 6-9 for instructions. The other items in the setup menu are optional and may be set up at your convenience. Krell encourages you to use the setup menu to optimize the performance of the DVD Standard with your system.

This section explains menu navigation and guides you through each section of the system setup menu.

ACCESSING THE SETUP MENU

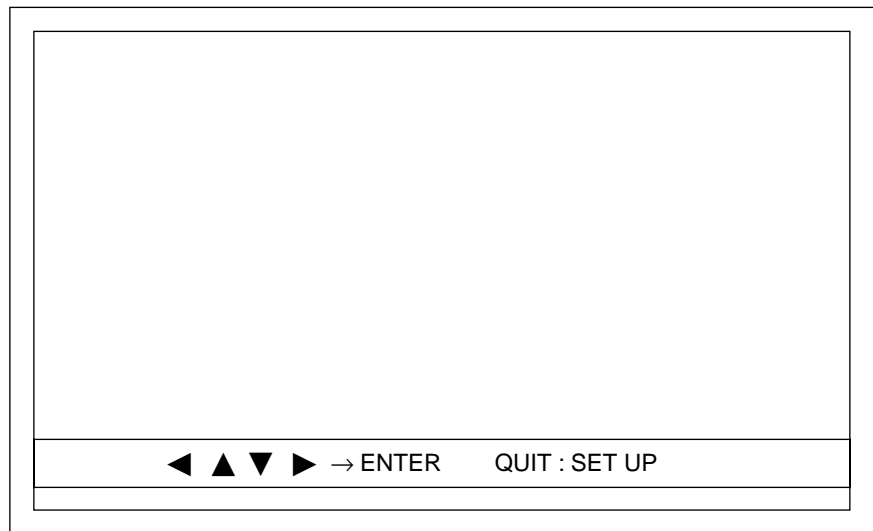
1. Connect the DVD Standard to your video monitor; see **Getting Started**, on pages 6-9.
2. Connect the AC power cord to the IEC power connector (37) on the DVD Standard back panel and to the AC wall receptacle. The red stand-by LED (3) illuminates.
3. Press the power button (1) or key (38). The blue power LED (2) illuminates, indicating that the DVD Standard is in the operational mode.
4. Press the setup button (19) or key (44). The SETUP MENU screen appears.

NAVIGATING THE MENU

To navigate the setup menu, use the directional buttons (16) or keys (45) and the enter button (17) or key (46). The directional buttons and keys ◀, ▲, ▶, and ▼ let you move around the menu screen and highlight the desired selection (indicated by yellow). Use the enter key to select the highlighted item. If at any time you wish to exit the setup menu, press the setup button or key.

The menu has four sections: configuration, Faroudja, audio, and parental. Menu content is described on the following pages.

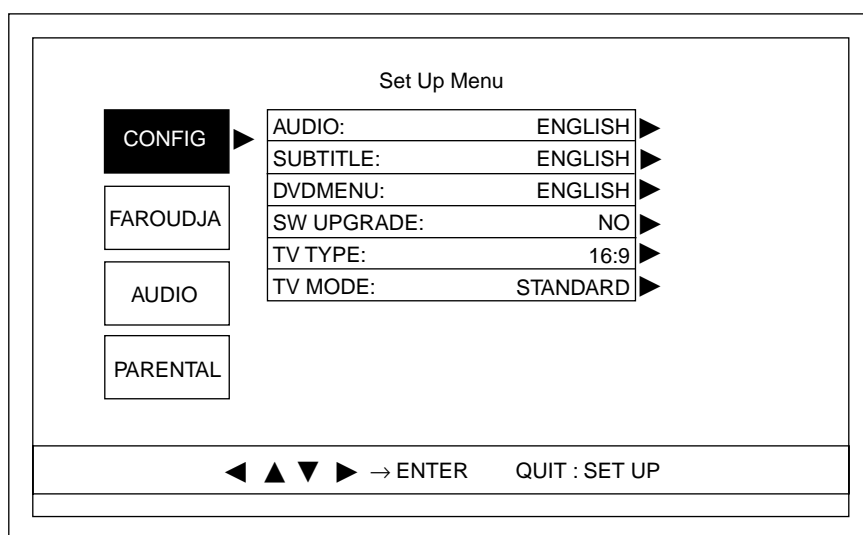
At the bottom of each setup screen is a box with directions for navigating the menu.



Configuration Menu

The configuration menu lets you match your video monitor to the DVD Standard, select different brightness and contrast standards, and select languages for audio track, subtitles, and DVD menu. This menu also lets you prepare your DVD Standard for a software upgrade.

When you press the setup button or key, you see the following screen, which shows the four setup options, plus the configuration menu selections:

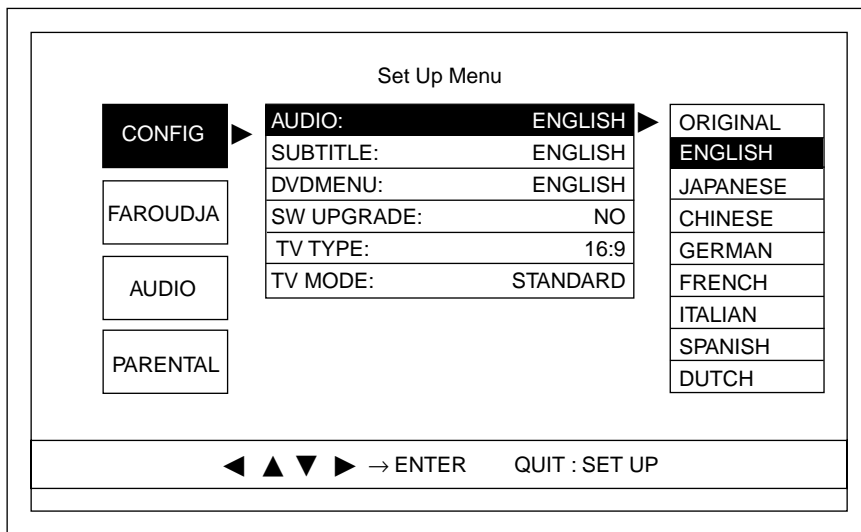


The CONFIG box is highlighted yellow.

CONFIGURATION MENU,
continued

Audio

This option lets you select the language of the DVD Standard audio track, if the language is available on the disc you are playing. Press the ► button or key to highlight AUDIO, then press the enter button or key. The audio submenu appears.

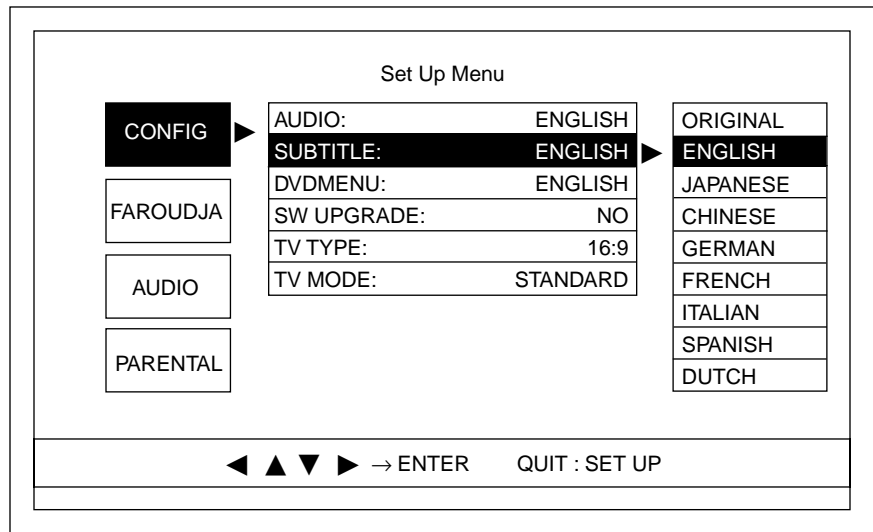


The currently selected item is highlighted yellow. Press the ▼ button or key to choose the preferred language, then press the enter button or key.

CONFIGURATION MENU,
continued

Subtitle

This option lets you choose the language for subtitles, if the language is available on the disc you are playing. Press the ▼ button or key to highlight SUBTITLE, then press the enter button or key. The subtitle submenu appears.

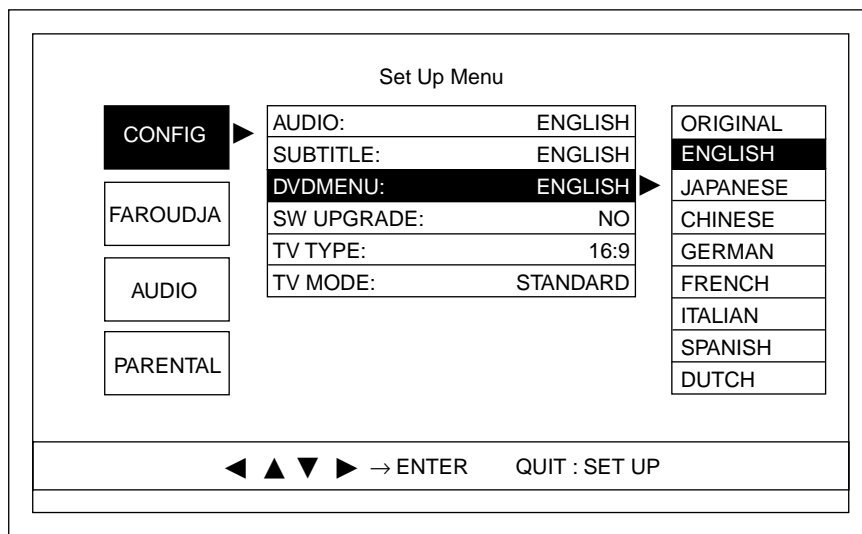


The currently selected option is highlighted yellow. Press the ▼ button or key to choose the preferred language, then press the enter button or key.

CONFIGURATION MENU,
continued

DVD Menu

This option lets you select the language of the DVD menus, if the language is available on the disc. Press the ▼ button or key to highlight DVD MENU, then press the enter button or key. The DVD sub-menu appears.

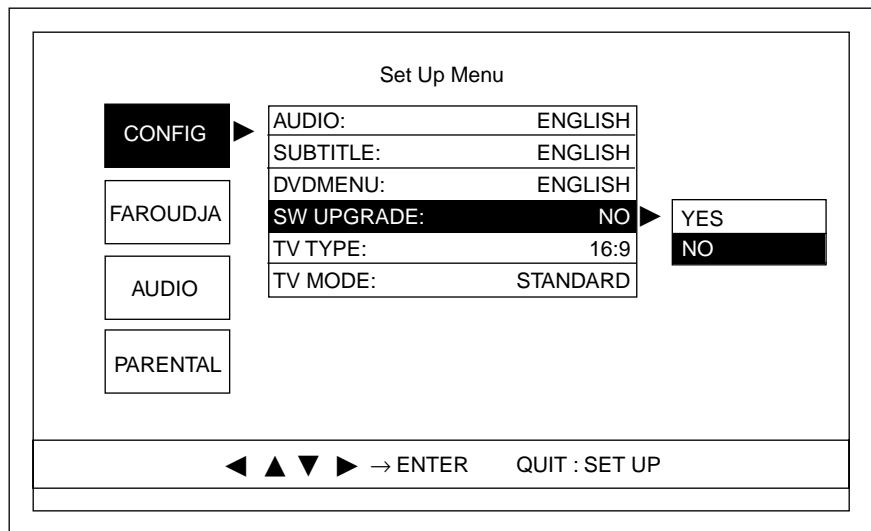


The currently selected option is highlighted yellow. Press the ▼ button or key to choose the preferred language, then press the enter button or key.

CONFIGURATION MENU,
continued

Software Upgrade

This option lets you prepare the DVD Standard for a software upgrade. Press the ▼ button or key to highlight SW UPGRADE, then press the enter button or key. The SW upgrade submenu appears.

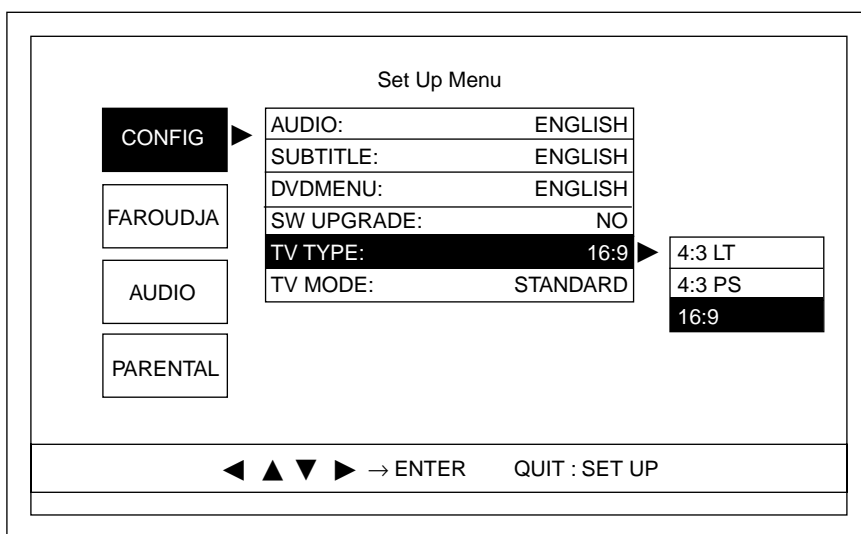


If you need to install an upgrade disc, press the ► button or key to select YES and press the enter button or key.

CONFIGURATION MENU,
continued

TV Type

This menu selection must be used to select the DVD television aspect ratio that matches your video monitor. If you have a standard size television screen, choose 4:3 LT (letterbox with a black box at the top and bottom of the screen) or 4:3 PS (pan and scan, with the picture extending to the screen margins). Choose 16:9 if you have a wide-screen television. See **Getting Started**, on page 9. Press the ▼ button or key to highlight TV TYPE, then press the enter button or key. The TV type submenu appears.



Press the ▼ button or key to choose the television type, then press the enter button or key.

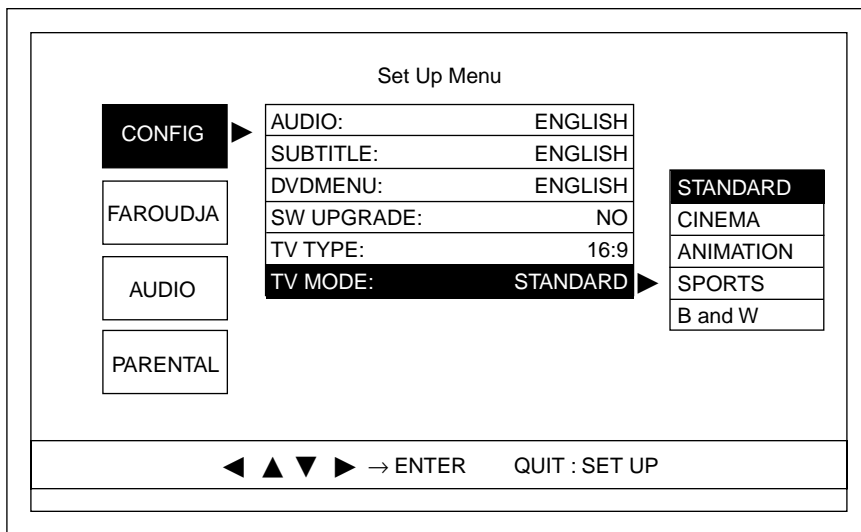
IMPORTANT

For proper viewing, you must select the correct television format before you begin playing a disc.

CONFIGURATION MENU,
continued

TV Mode

This option lets you modify the standard video outputs for different brightness, contrast, and sharpness settings. Press the ▼ button or key to highlight TV MODE, then press the enter button or key. The TV mode submenu appears.

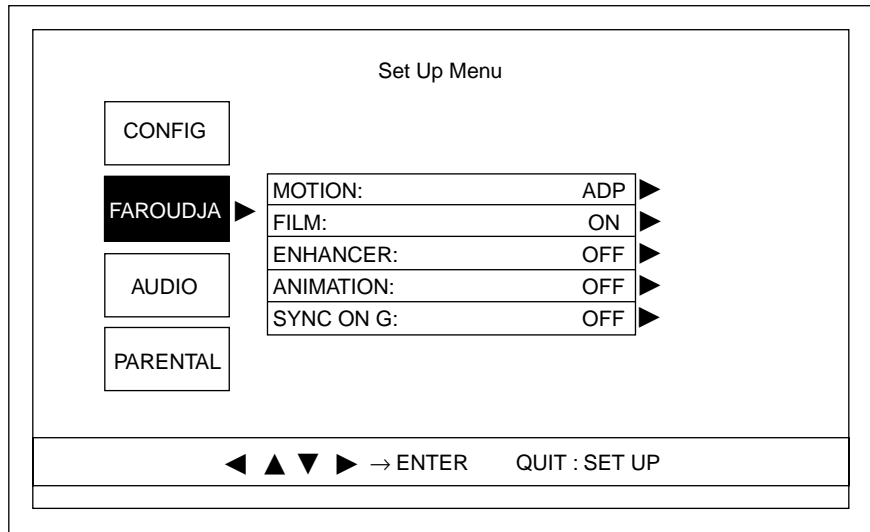


Press the ▼ button or key to choose the preferred mode, then press the enter button or key.

Faroudja Menu

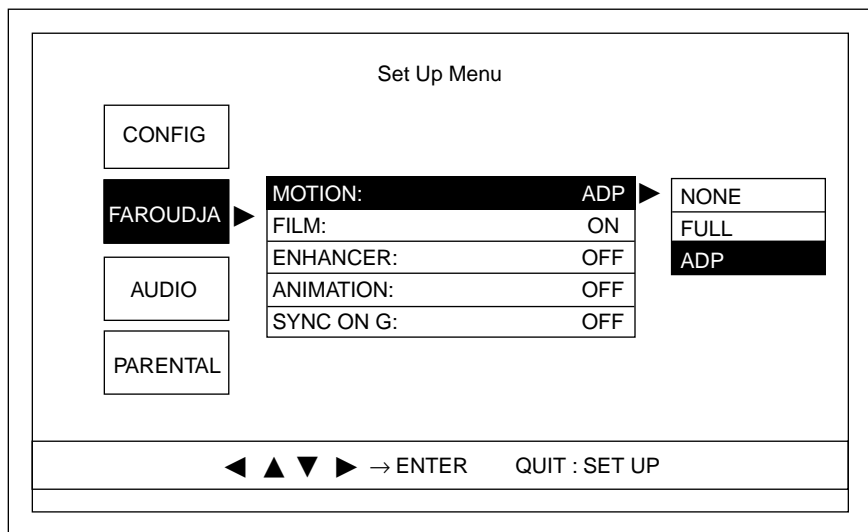
The Faroudja display setup options allow you to customize your video display.

Press the ◀ and ▼ buttons or keys to highlight FAROUDJA. The Faroudja menu appears.



Motion

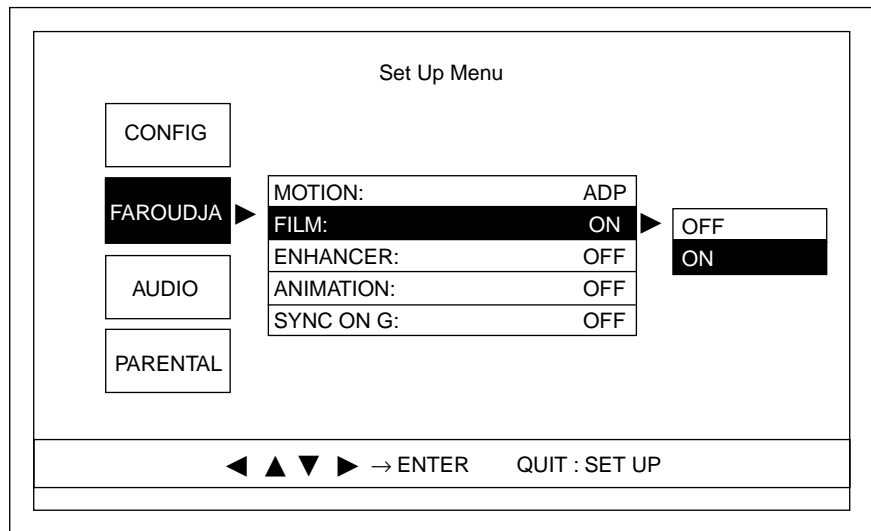
This option lets you choose the motion compensation mode. Adaptive (ADP) selects a method of combining progressive fields, depending on their motion content. For no motion compensation, set to OFF. Press the ► button or key to highlight MOTION, then press the enter button or key. The motion submenu appears.



Press the ▼ button or key to choose the preferred motion compensation option, then press the enter button or key.

Film

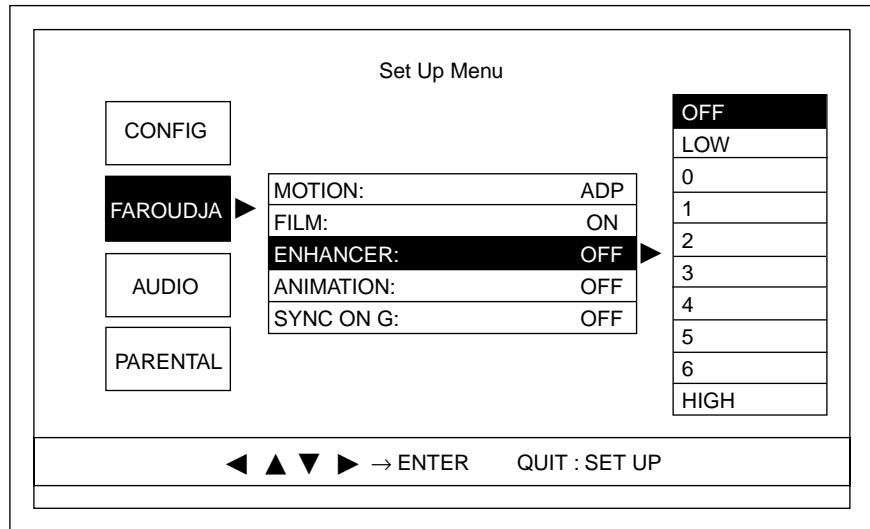
This option lets you select the 3:2 pulldown algorithm. Press the ▼ button or key to highlight FILM, then press the enter button or key. The film submenu appears.



Press the ▼ button or key to choose the preferred film option, then press the enter button or key.

Enhancer

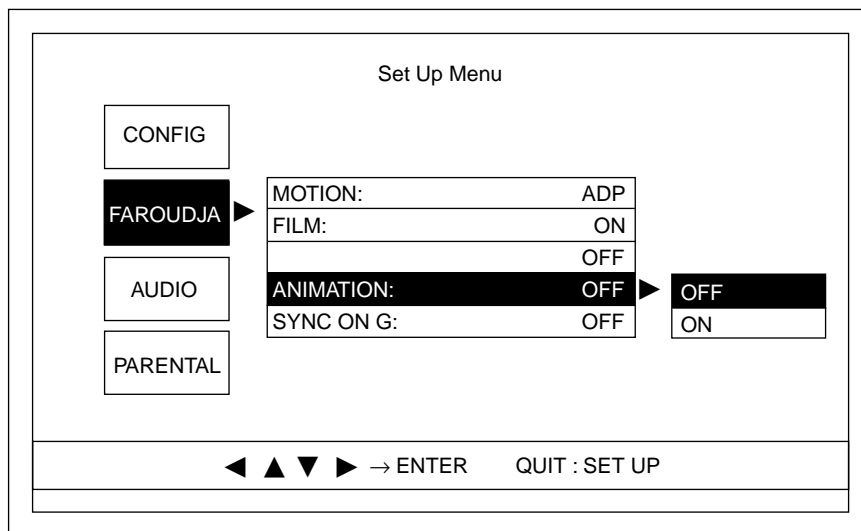
This option lets you set the level of edge enhancement and gain, to make the video image sharper with a more defined edge. Press the ▼ button or key to highlight ENHANCER, then press the enter button or key. The enhancer submenu appears.



Press the ▼ button or key to choose the preferred enhancer option, then press the enter button or key.

Animation

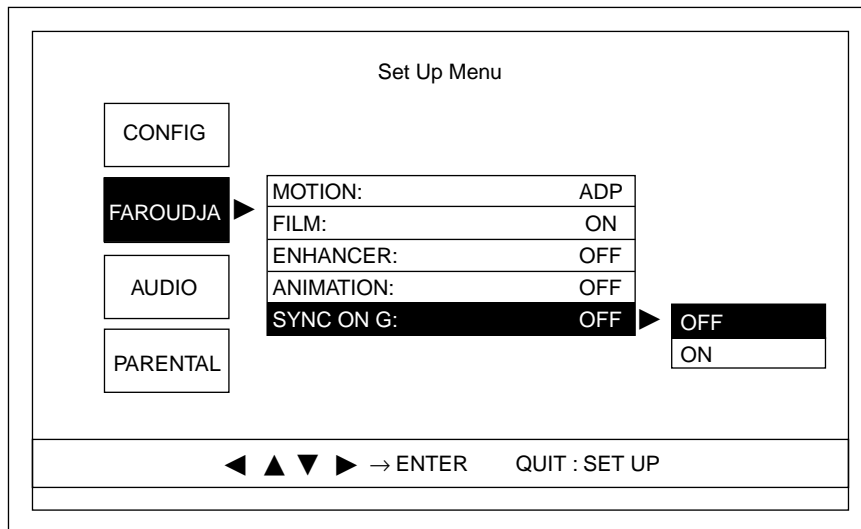
This option lets you enable or disable chroma correction when the video is from a computer-generated source. For animated DVDs, set animation to ON. For standard DVDs, select OFF. Press the ▼ button or key to highlight ANIMATION, then press the enter button or key. The animation submenu appears.



Press the ▼ button or key to choose the preferred animation option, then press the enter button or key.

Sync on G

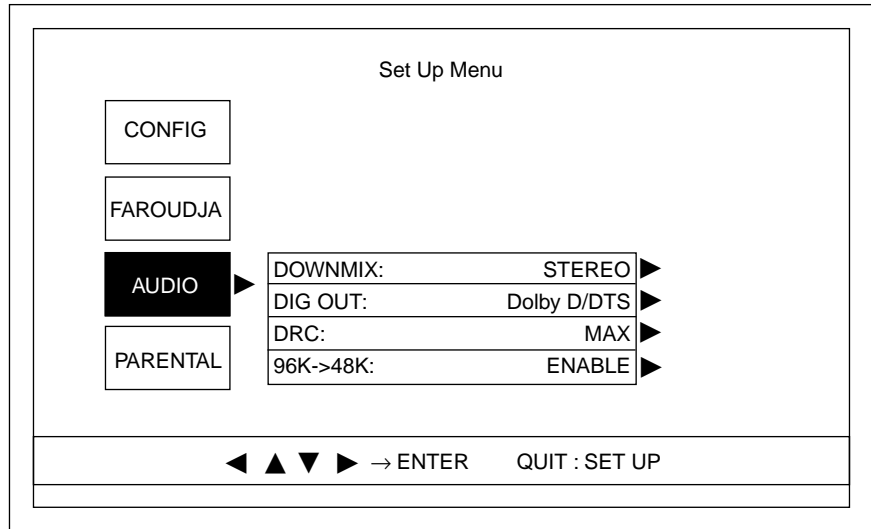
This option lets you put sync on the green signal, for compatibility with various monitors. If the signals are not correctly set, you will not get a picture. Press the ▼ button or key to highlight SYNC ON G, then press the enter button or key. The sync on G submenu appears.



Press the ▼ button or key to choose the preferred sync option, then press the enter button or key.

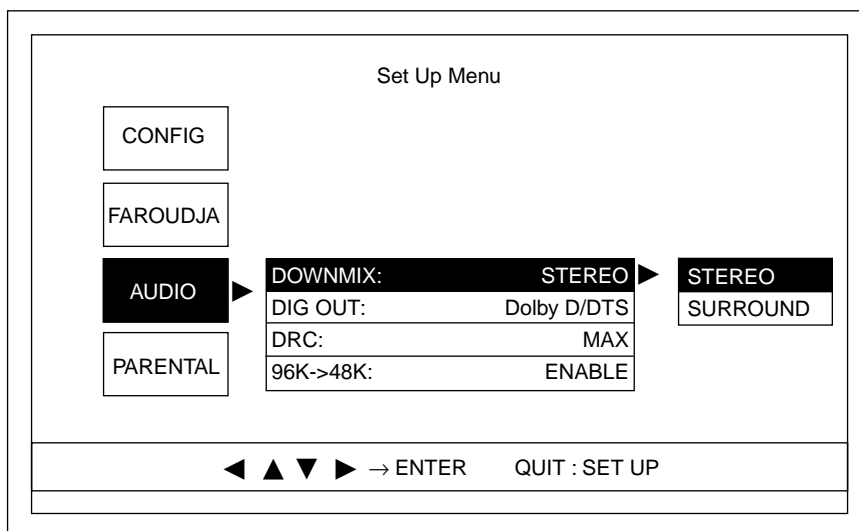
Audio Menu

This menu option allows you to match the DVD Standard to your system's capabilities, select audio output, set dynamic range control, and choose the sample rate compatible with your system. Press the ◀ and ▼ buttons or keys to highlight AUDIO. The audio screen appears.



Downmix

Use this option to select either 2 channel stereo or surround mode to match the DVD Standard to your system's surround decoding capabilities. Select stereo mode if your system does not have a surround decoder. Press the ► button or key to highlight DOWNMIX, then press the enter button or key. The downmix submenu appears.



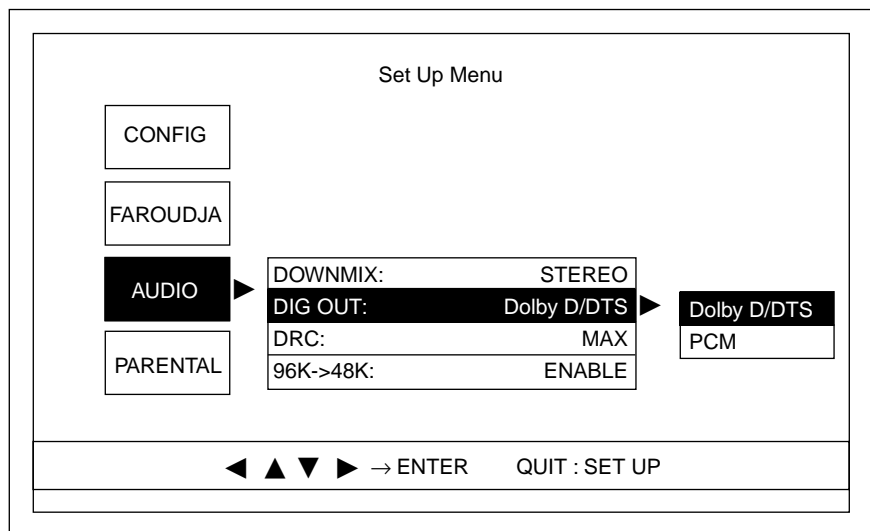
Press the ▼ button or key to choose the preferred downmix option, then press the enter button or key.

The chart below shows how downmix and digital out settings affect analog and digital outputs.

Digital Out	+	Downmix	=	Analog Output	Digital Output
Dolby D/DTS		Stereo		Stereo	Dolby D/DTS
Dolby D/DTS		Surround		Dolby Surround compatible	Dolby D/DTS
PCM		Stereo		Stereo	Stereo
PCM		Surround		Dolby Surround compatible	Dolby Surround compatible

Digital Out

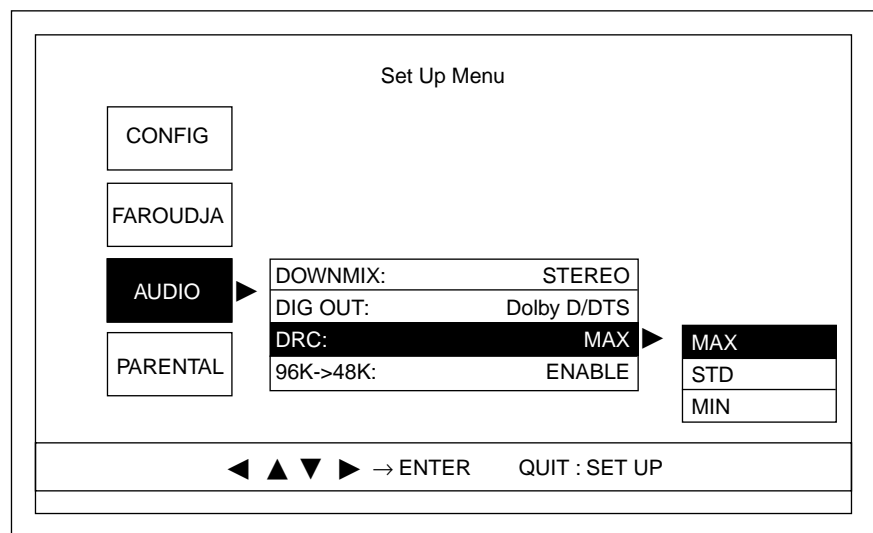
This option allows you to select either PCM or Dolby Digital/DTS encoded audio output. Select Dolby D/DTS if the digital output is connected to a digital decoder that can decode Dolby Digital or DTS material. Press the ▼ button or key to highlight DIGITAL OUT, then press the enter button or key. The digital out submenu appears.



Press the ▼ button or key to choose the preferred digital output option, then press the enter button or key.

DRC

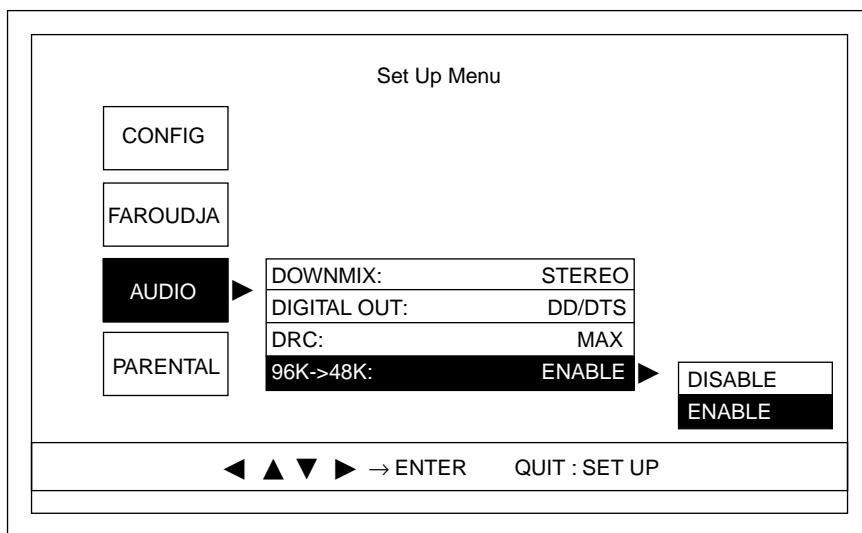
This option lets you set the dynamic range control (compression level) of audio output for Dolby Digital material only. Choose maximum (max) for full range. Choose standard (std) to keep the range at the same setting as in the Dolby Digital disc. For a high degree of compression at low listening levels, choose minimum (min). Press the ▼ button or key to highlight DRC, then press the enter button or key. The DRC submenu appears.



Press the ▼ button or key to choose the preferred DRC option, then press the enter button or key.

96K-48K

This option allows the DVD Standard to convert 96K sample rate data to 48K, the sample rate compatible for most systems. Select disable if your system is capable of playing 96K input signals without conversion (see the owner's manual for other system components). Press the ▼ button or key to highlight 96K-48K, then press the enter button or key. The 96K-48K submenu appears.

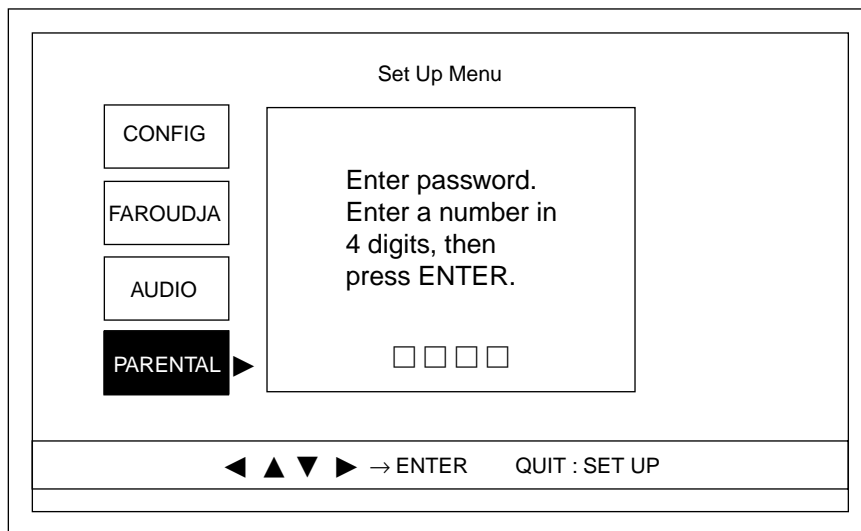


Press the ▼ button or key to choose the preferred sample rate option, then press the enter button or key.

Parental Menu

The parental menu options allow you to set a parental security password, set allowable viewing levels, and change your password.

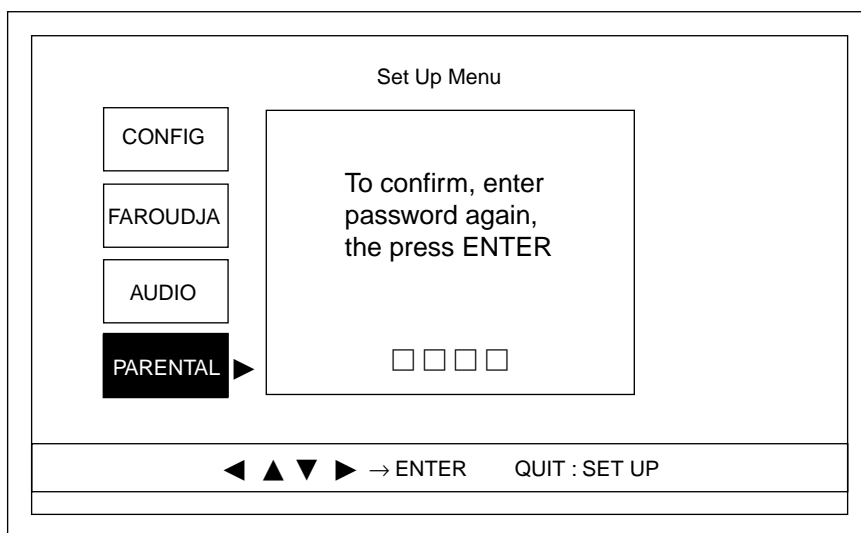
Press the ◀ and ▼ buttons or keys to highlight the parental menu. The password screen appears.



Press enter to highlight the screen.

Press the numeric keys to enter your four-digit password. A dash appears in each box as you enter a number.

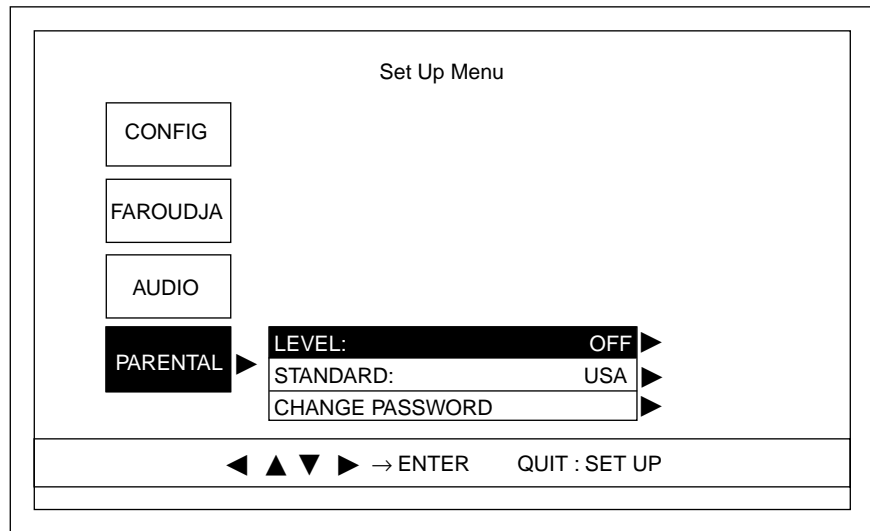
Press enter. The confirmation screen appears:



System Setup, continued

PARENTAL MENU, continued

After you correctly re-enter your password, press the enter button or key. The parental menu appears.



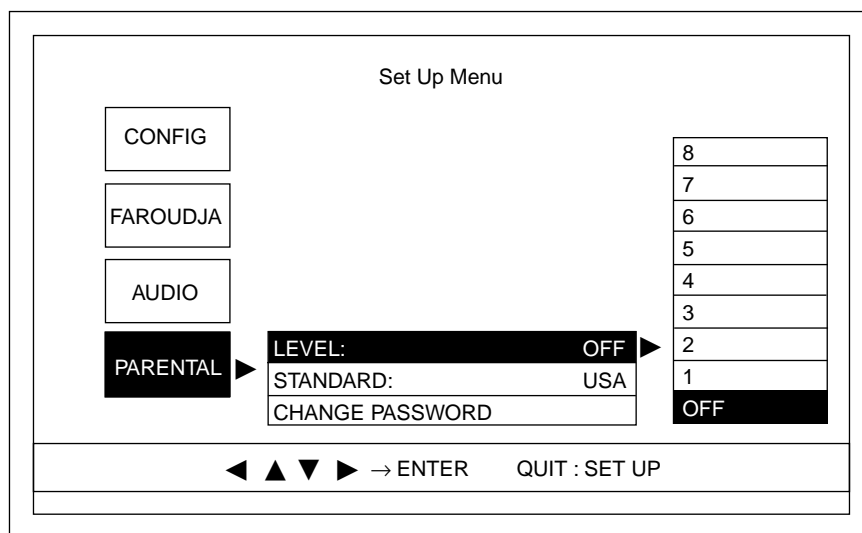
**IF YOU FORGET
YOUR PASSWORD**

To reset your password, from the stand-by mode, press and hold the stop button, then press the power button.

Level

The viewing level menu allows you to set the allowable viewing level of discs played. For example, level 1 allows viewing of the equivalent of G rating without entering a password. Any video disc with a higher rating (2-8) requires override. See the video disc package for viewing level numbers and their rating equivalents.

Press the enter button or key. The level submenu appears.



Press the ▼ button or key to choose the preferred access level, then press the enter button or key.

System Setup, continued

PARENTAL MENU, continued

If anyone attempts to play a disc that exceeds the viewing level, the following message appears:

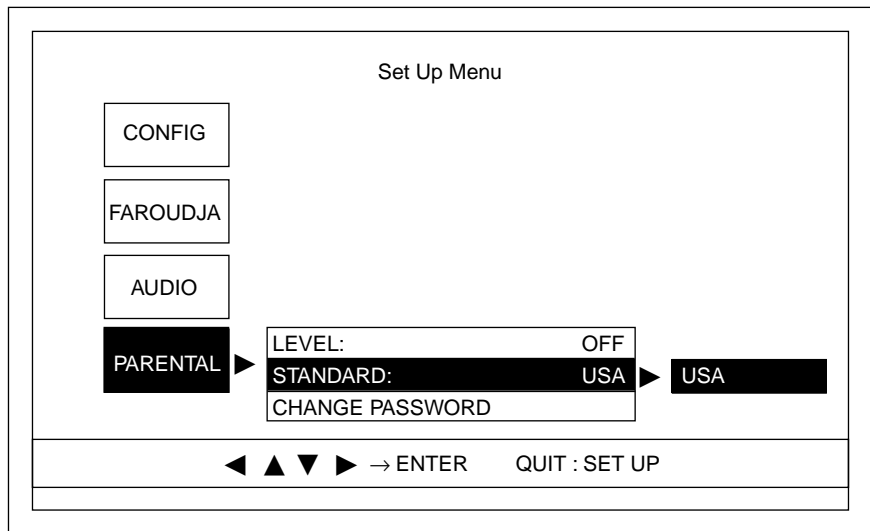
USER PARENTAL LOCK IS SET. NOT ABLE TO PLAY.

If you wish to play the disc, you must reset the viewing level. Press the setup button or key, enter your password, then select viewing level. Set the viewing level to off or to a higher setting such as 8.

PARENTAL MENU, continued

Standard

The standard menu allows you to select the rating standard for movies. Currently the DVD Standard has one setting, USA. Press the ◀ and ▼ buttons or keys to highlight the standard menu.

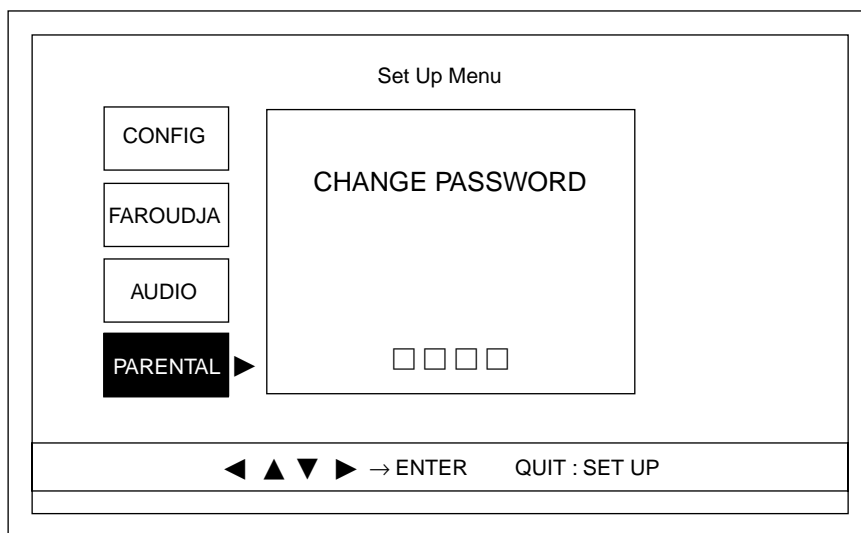


PARENTAL MENU, continued

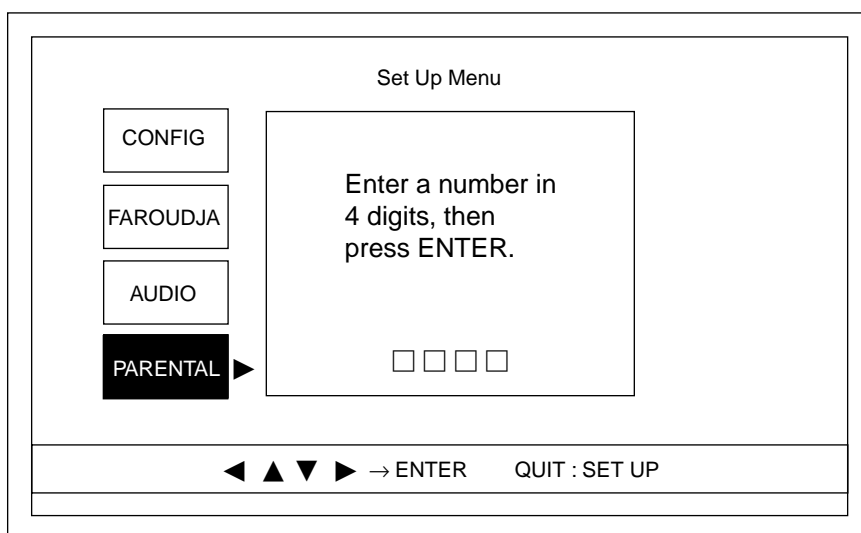
Change Password

The change password menu allows you to change your original password. You may wish to change your password regularly.

Press the ◀ and ▼ buttons or keys to highlight the change password menu.



Press enter to select this option. You return to the password screen.



Enter and confirm your new password.

Press the setup button or key to exit the setup menu.

Warranty

To register your product for warranty benefits, please complete and return the Warranty Registration Card enclosed in the shipping box within 15 days of purchase. Thank you.

This Krell product has a limited warranty of five years for parts and labor on circuitry and three years for parts and labor on all mechanical components. Should this product fail to perform at any time during the warranty, Krell will repair it at no cost to the owner, except as set forth in this warranty.

The warranty does not apply to damage caused by acts of God or nature.

The warranty on this page shall be in lieu of any other warranty, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. There are no warranties which exceed beyond those described in this document. If this product does not perform as warranted herein, the owner's sole remedy shall be repair. In no event will Krell be liable for incidental or consequential damages arising from purchase, use, or inability to use this product, even if Krell has been advised of the possibility of such damages.

Proof of purchase in the form of a bill of sale or receipted invoice substantiating that the unit is within the warranty period must be presented to obtain warranty service. The warranty begins on the date of the original retail purchase, as noted on the bill of sale or receipted invoice from an authorized Krell dealer or distributor. Previously owned equipment, when re-purchased from an authorized Krell dealer or distributor, has the balance of the original warranty, based on the original date of manufacture.

The warranty for Krell products is valid only in the country to which they were originally shipped, through the authorized Krell distributor for that country, and at the factory. There may be restrictions on or changes to Krell's warranty because of regulations within a specific country. Please check with your distributor for a complete understanding of the warranty in your country.

If a unit is serviced by a distributor who did not import the unit, there may be a charge for service, even if the product is within the warranty period.

Freight to the factory is your responsibility. Return freight within the United States (U.S.A.) is included in the warranty. If you have purchased your Krell product outside the U.S.A. and wish to have it serviced at the factory, all freight and associated charges to the factory are your responsibility.

Krell will pay return freight to the U.S.A.-based freight forwarder of your choice. Freight and other charges to ship the unit from the freight forwarder to you are also your responsibility.

Krell is not responsible for any damage incurred in transit. Krell will file claims for damages as necessary for units damaged in transit to the factory. You are responsible for filing claims for shipping damages during the return shipment.

Krell does not supply replacement parts and/or products to the owner of the unit. Replacement parts and/or products will be furnished only to the distributor performing service on this unit on an exchange basis only; any parts and/or products returned to Krell for exchange become the property of Krell.

No expressed or implied warranty is made for any Krell product damaged by accident, abuse, misuse, natural or personal disaster, or unauthorized modification.

Any unauthorized voltage conversion, disassembly, component replacement, perforation of chassis, updates, or modifications performed to the unit will void the warranty.

The operating voltage of this unit is determined by the factory and can only be changed by an authorized Krell distributor or at the factory. The voltage for this product in the U.S.A. cannot be changed until six months from the original purchase date.

In the event that Krell receives a product for warranty service that has been modified in any way without Krell authorization, all warranties on that product will be void. The product will be returned to original factory layout specifications at the owner's expense before it is repaired. All repairs required after the product has been returned to original factory specifications will be charged to the customer, at current parts and labor rates.

All operational features, functions, and specifications and policies are subject to change without notification.

Return Authorization Procedure

HOW TO EXPEDITE SERVICE

If you believe there is a problem with your component, please contact your dealer, distributor, or the Krell factory to discuss the problem *before* you return the component for repair. To expedite service, you may wish to complete and e-mail the Service Request Form in the Service section of our website at:

<http://www.krellonline.com>

To contact the Krell Service Department:

TEL	203-799-9954 Monday-Friday, 9:00 AM to 5:00 PM EST
FAX	203-799-9796
E-MAIL	service@krellonline.com
WEB SITE	http://www.krellonline.com

HOW TO RETURN A PRODUCT

To return a product to Krell, please follow this procedure so that we may serve you better:

1. Obtain a Return Authorization Number (R/A number) and shipping address from the Krell Service Department.
2. Insure and accept all liability for loss or damage to the product during shipment to the Krell factory and ensure all freight (shipping) charges are prepaid.

The product may also be hand delivered if arrangements with the Service Department have been made in advance. Proof of purchase will be required for warranty validation at the time of hand delivery.

IMPORTANT

Use the original packaging to ensure the safe transit of the product to the factory, dealer, or distributor. Krell may, at its discretion, return a product in new packaging and bill the owner for such packaging if the product received by Krell was boxed in nonstandard packaging or if the original packaging was so damaged that it was unusable. If Krell determines that new packaging is required, the owner will be notified before the product is returned.

HOW TO PURCHASE ADDITIONAL PACKING

To purchase additional packaging, please contact your authorized Krell dealer, distributor, or the Krell Service Department for assistance.

SERIAL NUMBER

Your DVD Standard product serial number is: _____

Krell Industries, Inc.
45 Connair Road
Orange, CT 06477-3650 USA

DVD Standard

v 01.1

TEL 203-799-9954, FAX 203-891-2028

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