

THE LEADER IN AUDIO ENGINEERING

SACD Standard Super Audio Compact Disc Player

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**Owner's Reference** 

SACD Standard Super Audio Compact Disc Player Instructions for Use v 05.0

#### CONTACT INFORMATION

Krell Industries, Inc. 45 Connair Road Orange, CT 06477-3650 USA TEL 203-799-9954 FAX 203-891-2028 E-MAIL krell@krellonline.com WEB SITE http://www.krellonline.com

# CE

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

#### WARNINGS

Do not place the compact disc player 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 SACD 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 SACD 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.

This product is manufactured in the United States of America. Krell<sup>®</sup> is a registered trademark of Krell Industries, Inc., and is restricted for use by Krell Industries, Inc., its subsidiaries, and authorized agents. Krell Current Mode<sup>™</sup> is a trademark of Krell Industries, Inc. TosLink<sup>®</sup> is a trademark of Toshiba Corporation. All other trademarks and trade names are registered to their respective companies.

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## Introduction

Thank you for your purchase of the Krell SACD Standard. The SACD Standard is a music-only platform which plays single layer, dual layer, and hybrid super audio compact discs as well as conventional audio compact discs. This component features exceptional high quality twochannel stereo as well as the new multi-channel output, bringing you the excitement of six-channel sound.

Extended bandwidth capabilities, a precision disc transport mechanism, and high performance analog circuitry provide Krell sound quality at an exceptional value. The unique Krell chassis-in-a-chassis design provides ultra-stable disc drive operation, while damping induced vibration from the electronics. Separate power for the digital and analog circuitry maximizes performance.

Krell Class A direct coupled circuitry means that the SACD Standard delivers the most accurate music signal into your system. The Krell Current Mode output stage transmits every bit of detail available from the SACD format. Two wireless infrared connections, one on the front panel and one on the rear panel, as well as other remote control connection options allow you to integrate the SACD Standard easily into whole house systems.

This owner's reference manual contains important information on placement, installation, and operation of the SACD Standard. Please read this information carefully. A thorough understanding of these details will help ensure satisfactory operation and long life for your SACD 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 completely 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 as the ground connection is made last and broken first. 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, or when the back panel power switch (30) is down, or in the "0" position, the component is off.

#### Stand-by Mode

When the SACD Standard is connected to AC power, and the back panel power switch (30) is up, or in the "1" position, 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 it is not playing music.

#### **Operational Mode**

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

#### Definition of Terms, continued

TECHNOLOGY	<b>Krell Current Mode</b> A proprietary Krell circuit topology in which the audio gain stages of a component operate in the current rather than the voltage domain. This unique technology provides the component with exceptional speed and a wide bandwidth.		
SACD DISC	SACD stands for Super Audio Compact Disc, an audio disc that provides exceptional high quality sound. Based on the new Direct Stream Digital (DSD) technology, a format that comprises a 1-bit system, a SACD has a sampling frequency 64 times higher than that of a conventional audio compact disc. With a frequency response of over 50 kHz and a dynamic range of 120 dB over the entire audible spectrum the results are spectacular: There is no better audio disc reproduction.		
60	You will recognize a SACD by the super audio compact disc logo.		
SUPER AUDIO CD	There are three SACD disc types:		
	1 A single layer disc consists of one high density (HD) layer.		
	2 A dual layer disc consists of two HD layers, and can store twice as much information as a single layer disc.		
	3 A hybrid disc consists of one standard compact disc layer with conventional two-channel audio compact disc informa- tion, and one HD layer.		
	Each SACD disc type may contain two areas of recorded informa- tion: a high-quality two-channel area and a high-quality multi-channel area. Recorded information may vary per area. Refer to the disc inlay for more information.		
SACD Disc: Hybrid Disc Type	The hybrid SACD disc type has the most versatile disc playback options, with two areas of recorded information for SACD playback as well as backward compatibility with existing standard compact disc and DVD players via the standard compact disc layer.		
	On a hybrid SACD disc, the two layers are read from the same side of the disc. The HD layer is read by a DVD laser. The reflective con- ventional compact disc layer is read by the compact disc laser through the second, semi-transmissive HD layer.		

Unpacking	
	Follow these steps to safely unpack the SACD Standard:
	<ol> <li>Open the shipping box and remove the top layer of foam. You see these items:</li> </ol>
	<ol> <li>SACD Standard</li> <li>IEC connector (AC power) cord</li> <li>12 VDC (12 V trigger) cable</li> <li>SACD Standard remote control</li> <li>CR2025 lithium battery</li> <li>packet containing the Quick Setup Guide and the warranty registration card</li> </ol>
	<ol><li>Grasp the underside of the foam end-caps that encase the SACD Standard and lift it straight out of the shipping box.</li></ol>
	<ol> <li>Place the SACD Standard in a safe location and remove the protective plastic wrapping.</li> </ol>
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 SACD player in the future, repack the unit in its original packaging to prevent transit damage. See <i>Return</i>

Authorization Procedure, on page 17, for more information.

# Placement

	Before you install the SACD Standard into your system, review the following guidelines to choose the location for the SACD Standard. This will facilitate a clean, trouble-free installation. The SACD Standard does not require any type of special rack or cabinet for installation. For the dimensions of the SACD Standard, see <i>Specifications,</i> on the back cover of this manual.
	Place the SACD Standard on a firm, level surface, away from exces- sive heat, humidity, or moisture. The SACD 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 pro- vide adequate ventilation. Installations inside cabinetry may need extra ventilation.
	Do not place the SACD Standard near hum sensitive components such as preamplifier phono stages or turntables. Although the SACD Standard is well shielded, placing it near these components could create interference and cause hum.
Note	The SACD 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 war- ranty.
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 sound.
AC Power Guidelines	The SACD Standard has superb regulation and does not require a dedicated AC circuit. 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.

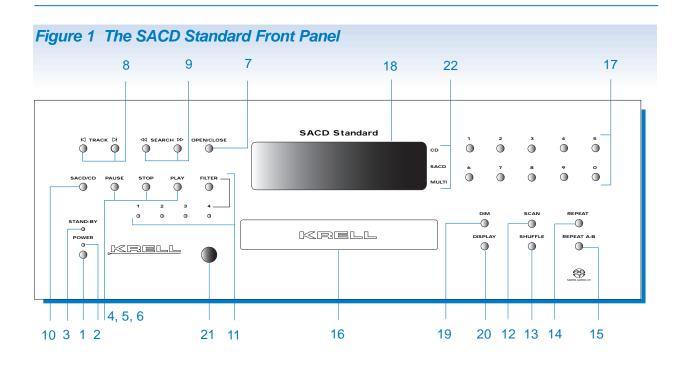
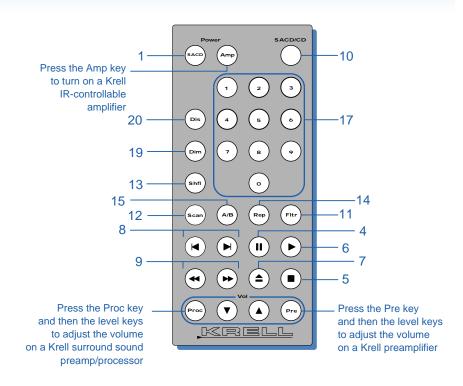
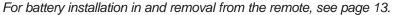


Figure 2 The SACD Standard Remote





# Front Panel/Remote Control Description

See Figures 1 and 2 on the facing page

Power, transport, and display features are described in the illustration legend below. Most front panel features can also be activated via the keys on the remote. Descriptions of special operational features are outlined on pages 8-10:

#### **Features**

#### POWER

#### 1 Power

Switches the SACD Standard between standby and operational modes.

- 2 Power LED The blue power LED illuminates when the SACD Standard is in the operational mode.
- 3 Stand-by LED The red stand-by LED illuminates when the SACD Standard is switched on from the back panel, indicating that the SACD player is in the stand-by mode and ready to be switched to the operational mode.

#### TRANSPORT

#### 4 Pause

Temporarily suspends playback of a track. To resume playback at the point pause was engaged, press play.

- 5 Stop Stops disc playback.
- 6 Play Starts playback from the beginning of the disc. See also How to Play a Disc, page 16.
- 7 Open/Close Button Opens and closes the disc transport.

#### 8 Track Forward and Back

Track Forward. Selects the track that follows the current track. Track Back. Selects the track that precedes the current track. Search. Press and hold track forward or track

track forward or track back to scroll forward or backward in the current track. Press repeatedly (do not hold) to skip multiple tracks.

9 Search Forward and Back Press to scroll forward or backward in the current track. Press play to return to normal playback.

#### 10 SACD/CD

Selects the format: conventional CD (cD), two-channel (SACD), or multi-channel (MULTI).

11 Filter

Select filter responses for all disc formats. See also, Using the Filter Button or Key, on page 8-9.

12 Scan

Select to play 10 seconds of each track.

13 Shuffle

Randomly selects and plays tracks. See also, Using the Shuffle Button or Key, on page 9.

#### 14 Repeat

Replays selected track until new feature is selected. See also, *Using the Repeat Button or Key, on page 10.* 

#### 15 Repeat A/B

Creates a loop between two pre-determined points within a single track or sequential tracks. See also, **Using the Repeat A/B Button or Key,** on page 10.

16 Disc Transport Holds the disc.

17 Direct Track Access Use buttons or keys 1 through 0 to access each track in a disc directly. If tracks consist of 2 digits, the buttons or keys must be pressed within 2 seconds of each other.

#### DISPLAY

- 18 Front Panel Display Shows disc type and format, and the current status of the SACD. See Using the Front Panel Display, on page 10.
- 19 Dim

Select to reduce the illumination of the front panel display.

20 Display

Cycles the front panel display between the elapsed time on the current track and the track number.

21 Infrared Sensor

Receives commands from the SACD Standard remote control. For proper remote control operation, make sure that nothing is obstructing the infrared sensor.

#### 22 Disc Formats

The currently selected format is preceded by a red LED in the front panel display.

#### Front Panel and Remote Control Description, continued

USING the SACD/CD BUTTON or Key (10)	Use the SACD/CD button or key to select one of the three disc for- mats that the SACD Standard plays: cD (conventional CD), SACD (two- channel SACD) and MULTI (multi-channel SACD). The currently selected format is preceded by a red LED in the front panel display (18). The default format for all SACD discs is MULTI.
	The tracks on the selected disc format are the only tracks that can be played. To access tracks on alternate disc format, press the sACD/CD button or key again. If there are no tracks in a particular for- mat, that format does not appear in the front panel display.
To Play the Conventional CD Layer of a Hybrid SACD	If you are playing a two-channel track on a hybrid SACD, and want to access the tracks on the conventional CD layer:
	1. Press the stop button on the front panel (5) or the stop key (5) on the remote control. The front panel display reads STOP.
	<ol> <li>Press the sACD/CD button or key (10) twice. The red LED next to the cD label (22) appears in the front panel display and the con- ventional CD layer begins playing in approximately 30 seconds.</li> </ol>
	If you are playing a multi-channel track on a hybrid SACD, and want to access the tracks on the conventional CD layer:
	1. Press the stop button or the stop key. The front panel display reads STOP.
	2. Press the sACD/CD button or key three times. The red LED next to the CD label appears in the front panel display and the convention- al CD layer begins playing in approximately 30 seconds.
USING THE FILTER BUTTON OR KEY (11)	The four SACD Standard format filters (11) make subtle changes to the high frequencies at ultrasonic levels, altering the sonic pre- sentation from your loudspeakers. Once a filter setting has been selected, it is held in memory even if the SACD Standard is turned off and then returned to operational status.
	Filter 1, 2, 3, and 4 are available in any SACD format. Filters 1 and 2 are available only in the conventional CD format. All four filters have a different output gain, higher bandwidth, and a more gradual rolloff

in the SACD format, compared to Filter 1 and 2 in the CD format.

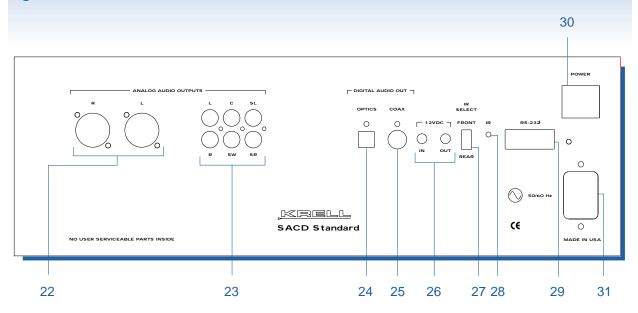
#### Front Panel and Remote Control Description, continued

USING THE FILTER BUTTON or Key (11), continued	Filter 1 and 2 are designed to eliminate aliasing artifacts that are the result of the D/A re-construction process.
Conventional Compact Disc Format Filters	FILTER 1 This filter operates flat from 20 Hz to 20 kHz, with a very steep roll characteristic above 20 kHz (21.5 kHz, -3 dB).
	FILTER 2 This filter operates up to 20 kHz (-3 dB) with a more gradual roll-off characteristic compared to Filter 1.
SACD Format Filters	Filter 1 in the SACD format has the same relative output gain as Filter 1 and 2 in the CD format and it has the highest bandwidth of the four SACD filters. Filters 2, 3 and 4 in the SACD format operate at reduced bandwidth with steeper slope filtering and different output gain.
	FILTER 1 This filter operates up to 180 kHz (highest bandwidth) and has the slowest roll-off characteristic with no change in output gain.
	FILTER 2 This filter operates up to 75 kHz and has the steepest roll-off charac- teristic. It has a +.5 dB increase in output gain over the entire audio pass band compared to Filter 1.
	FILTER 3 This filter operates up to 80 kHz and has the 2nd steepest roll-off characteristic. It has a +5.5 dB increase in output gain over the entire audio pass band compared to Filter 1.
	FILTER 4 This filter operates up to 90 kHz and has the 3rd steepest roll-off characteristic. It has a +3.5 dB increase in output gain over the entire audio pass band compared to Filter 1
USING THE SHUFFLE BUTTON OR KEY (13)	Press this button or key once to enable the SACD Standard to select and play tracks in a random sequence. To cancel this function, press the shuffle button or key again.

#### Front Panel and Remote Control Description, continued

USING THE REPEAT BUTTON OR KEY (14)	CONVENTIONAL CD REPEAT Press this button or key once to repeat the current track. The front panel display (18) reads REPEAT TRACK. Press the repeat button or key twice to repeat the whole disc. The front panel display reads REPEAT DSC.
	SACD REPEAT Press this button or key once to repeat the current track. The front panel display (18) reads REPEAT. Press the repeat button or key twice to repeat the whole disc. The front panel display shows REPEAT ARA (area).
	CANCEL REPEAT Press the repeat button or key a third time to cancel this function.
USING THE REPEAT A/B BUTTON OR KEY (15)	To create an A/B loop, start play of a track. When you hear the part that you want as the beginning of the loop, press A/B to insert the start position. Press A/B again to insert the finish position. A/B will automatically begin and continue indefinitely. To delete the A/B program, press A/B again or press the stop button or key (5).
USING THE FRONT PANEL DISPLAY (18)	The front panel display shows the disc type, the elapsed time of the track, and the feature that has been selected, for example: the SHUF- FLE OF REPEAT SINGLE feature. Press the DISPLAY button or key to access the track number. The track number appears for a few seconds, and then the display will revert to the elapsed time.

#### Figure 3 The SACD Standard Back Panel



#### **Features**

#### ANALOG AUDIO OUTPUTS

- 22 L and R Balanced Analog Audio Outputs One pair of balanced outputs with XLR connectors.
- 23 Multi-channel Singleended Analog Audio Outputs

For connection to a multichannel receiver, with RCA connectors:

L, R = left and right channel connections.

**C** = center channel connection.

**SW**= subwoofer connection.

**SL, SR** = left and right surround channel connections.

#### DIGITAL AUDIO OUTPUTS (CD format only)

24 Optics Output One EIAJ fiber optical digital output with a TosLink connector.

#### 25 Coax Output

One S/PDIF coaxial digital output with an RCA connector.

#### BACK PANEL REMOTE CONNECTIONS

26 12 VDC In/Out (12 V Trigger) Out. The output sends 12 VDC power on/off signals to other Krell components and other devices that incorporate a 12 V trigger.

**In.** The input receives 12 VDC power on/off signals from other components and devices that incorporate a 12 V trigger.

#### 27 IR Select

**Front** = IR select switch in the up position indicates that the front IR is active.

**Rear** =IR select switch in the down position indicates that the back panel IR is active.

#### 28 IR

Remote infrared sensor.

#### 29 RS-232

The RS-232 communication port allows you to send operational instructions to the SACD Standard using an external computer control system.

#### POWER

30 Back Panel Power Switch Use this switch to change the SACD Standard from

the SACD Standard from off to stand-by.31 IEC Connector

Use the provided IEC standard 15 amp power cord.

# **Back Panel Description**

See Figure 3 on page 11

	Analog outputs, digital outputs, remote connections, and power fea- tures are described on page 11. Operational descriptions of special functions are outlined below.
USING THE 12 V Trigger (24)	This feature allows you to turn other components on or off, or to and from stand-by, from the SACD Standard. When the SACD Standard is switched between stand-by and the operational mode, the 12 V trigger sends a signal from the 12 VDC Out that will switch other components, allowing whole systems or parts of systems to be easily coordinated.
	The 12 VDC input allows you to turn the SACD Standard on or off, or to and from stand-by, from other components.
<i>Notes</i> <i>Further information about</i> 12 V Trigger connections	When the component is in the operational mode, the 12 VDC Out provides 12 V of DC output. When the component is in the stand-by mode or off, the DC output is 0 V.
12 V Migger connections	The 12 VDC output current is limited to 30 mA.
	Consult the owner's reference of the components used in a custom installa- tion to take full advantage of the remote capability of the SACD Standard.
USING IR (28) AND IR SELECT (27)	The SACD Standard is equipped with one infrared sensor on the front panel (21) and a second infrared sensor the back panel (28), to facilitate custom installation. To activate the front panel IR transmitter, and deactivate the back panel IR transmitter, turn the switch up or toward FRONT. To activate the back panel IR transmitter, and deactivate the front panel IR transmitter, turn the switch down, or toward REAR.
	For a list of IR codes, see <b>RS-232 Port: Sending Commands and</b> Interpreting Data, the developer's reference for the SACD Standard.
USING THE RS-232 CONNECTOR (29)	For more information on using the RS-232 communications port, see <b>RS-232 Port: Sending Commands and Interpreting Data,</b> the developer's reference for the SACD Standard.
IMPORTANT Information about the internal line fuse	When the internal line fuse needs to be replaced, contact your dealer, distributor or Krell. The line fuse is not intended to be replaced by the user.

# **Remote Control Description**

See Figure 2 on page 6

**Battery** 

Installation and Removal

Power, transport, and display features are described in the illustration legend on page 7. All remote features can also be activated via the buttons on the front panel. Descriptions of special operational features are outlined on pages 8-10.

The SACD 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, plus 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**

Further information on battery installation

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

Replace batteries when remote control function becomes intermittent.

Krell SACD Standard

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

# Connecting the SACD 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 immune 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.

# TABLE 1 Analog and Digital Connectionsfor the SACD Standard

CD Format	Analog Output			Digital Output	
	Balanced Single-ended		ended	Optics	Coax
		L+ R	Multi		
Conventional CD	YES	YES	NO	YES	YES
Two-channel SACD	YES	YES	NO	NO	NO
Multi-channel SACD	YES	YES	YES	NO	NO

## Connection Steps

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

- 1. Make sure all power sources and components are off before connecting inputs and outputs.
- Neatly organize the wiring between the SACD Standard and all system components. Separate AC wires from audio cables to prevent hum or other unwanted noises from being introduced into the system.
- Remember that balanced outputs use three-pin XLR connectors. Single-ended outputs use RCA connectors. Maintain the correct left/right orientation of these outputs.
- 4. To play an SACD, you need to use analog audio outputs. Digital audio outputs are only available for conventional compact discs.

For multi-channel (MULTI) SACD, two-channel (SACD), and conventional compact disc playback, connect the SACD Standard multichannel analog audio outputs to the surround preamp/processor multi-channel inputs. All multi-channel analog audio outputs are available in the MULTI format. The center (c), subwoofer (sw) and surround (SL, SR) multi-channel outputs are not available in the CD or SACD formats. The left (L) and right (R) multi-channel outputs are always active.

 For two-channel and conventional compact disc playback only, connect the SACD Standard balanced analog audio outputs or the left (L) and right (R) multi-channel outputs to the preamplifier balanced or single-ended analog audio inputs. Connecting the SACD Standard to Your System, continued

- For conventional compact disc playback only, connect the SACD Standard digital coaxial output or digital optics output to the corresponding preamp/processor digital input.
- 7. Plug the AC power cord into the IEC power connector on the back panel. Then plug the AC power cord into the wall socket.

# **Operating the SACD Standard**

This section provides information about operating the SACD Standard. See Front Panel /Remote Control Description, on pages 6-9, for more SACD Standard playback features.

Power On Press the back panel power switch (30) labeled "1". When the SACD Standard is initialized and in the stand-by mode, the red stand-by LED (3) on the front panel illuminates. Then press the power button on the front panel or the SACD key (1) on the remote control, to place the SACD Standard in the operational mode. When the blue stand-by LED (2) illuminates, the SACD Standard is in the operational mode and ready to play a SACD or a conventional compact disc.

#### How to Play a Disc

- 1. Press the open/close button or key (7) to open the disc transport.
- 2. Place the disc on the transport.
- Press the open/close button or key again to close the disc transport. Track 1 begins to play, and the front panel display shows the elapsed track time. The multi-channel layer of an SACD loads automatically.
- 4. Press the SACD/CD button or key (10) to select another disc format and view available tracks.
- 5. Adjust the volume level through your system volume control.
- 6. Press the stop button or key (5) to end disc playback.
- 7. Press the play button or key (6) to begin playback again, from the first track.
- 8. To return the SACD Standard to the stand-by mode, press the power button or key (1).

#### Playing the Conventional CD Layer of a Hybrid SACD

If you are playing a two-channel track on a hybrid SACD, and want to access the tracks on the conventional CD layer:

- 1. Press the stop button on the front panel (5) or the stop key (5) on the remote control. The front panel display reads STOP.
- 2. Press the sACD/CD button or key (10) twice. The red LED next to the CD label (22) appears in the front panel display and the conventional CD layer begins playing in approximately 30 seconds.

Connecting the SACD Standard to Your System, continued

	If you are playing a multi-channel track on a hybrid SACD, and want to access the tracks on the conventional CD layer:		
	1. Press the stop button or the stop key. The front panel display reads STOP.		
	<ol> <li>Press the sACD/CD button or key three times. The red LED next to the cD label appears in the front panel display and the convention- al CD layer begins playing in approximately 30 seconds.</li> </ol>		
Notes	When you are playing a dual layer SACD, you can switch between two-		
Switching between two-channel and multi-channel tracks on dual layer and hybrid SACD disc types.	channel and multi-channel tracks at anytime, whether the disc is playing or stopped.		
	When you are playing a hybrid SACD, you must stop the disc before switch- ing between the SACD layer and the CD layer.		
	For further information about disc play features, please see pages 7-10.		

## 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 con- tact your dealer, distributor, or the Krell factory to discuss the problem <i>before</i> 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 FAX E-MAIL WEB SITE	203-799-9954 Monday-Friday, 9:00 am to 5:00 pm EST 203-799-9796 service@krellonline.com 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:	
	<ol> <li>Obtain a Return Authorization Number (R/A number) and ship- ping address from the Krell Service Department.</li> </ol>	
	<ol> <li>Insure and accept all liability for loss or damage to the product during shipment to the Krell factory and ensure all freight (ship- ping) charges are prepaid.</li> </ol>	
	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.	

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

TEL 203-799-9954, FAX 203-891-2028 E-MAIL krell@krellonline.com WEB SITE www.krellonline.com

## **SACD Standard**

Super Audio Compact Disc Player v 05.0

# **Specifications**

All operational features, functions, specifications, and policies are subject to change with out notification. FREQUENCY RESPONSE 20 Hz–20 kHz SACD, CD: +0.0,-0.5 dB

#### SIGNAL-TO-NOISE RATIO

"A" weighted SACD: 105 dB CD: 108 dB

#### TOTAL HARMONIC DISTORTION (THD)

20 Hz–20 kHz SACD: -75 dB CD: -82 dB

#### POWER CONSUMPTION 50 W

#### TRANSPORT

A drawer loading, mechanically isolated drive mechanism featuring a linear drive laser assembly

#### **ANALOG AUDIO OUTPUTS**

- 1 pair balanced via XLR connectors
- 6 single-ended via RCA connectors

#### **DIGITAL AUDIO OUTPUT**

- 1 S/PDIF via RCA connector
- 1 EIAJ optical via a TosLink connector

#### **REMOTE CONTROL**

- 2 wireless infrared
- 1 12 VDC input (12 V trigger) via a 3.4 mm mini plug
- 1 12 VDC output (12 V trigger) via a 3.4 mm mini plug
- 1 RS-232 remote connector

#### DIMENSIONS

17.3w x 5.7h x 16.5d in. 43.9w x 14.5h x 41.9d cm

### WEIGHT

**Shipped** 31 lb., 14.1 kg

Unit only 25 lb., 11.4 kg