

# SA Equipment

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## Krell SACD Standard CD And SACD Player

### Can One Player Do Both Formats Well?

Review By Alvin Gold  
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Krell announced its first high-resolution disc player, the SACD Standard, at the [Consumer Electronics Show in Las Vegas in January 2003](#), and it is now in full serial production. It is a dedicated SACD player of some sophistication, but it is far from representing the limits of Krell's ambitions in high-resolution disc replay. A universal player is currently in development, which will bring DVD-Audio, DVD-Video, SACD and CD replay under one roof. But Krell's CEO, Dan D'Agostino, is on record with the view that SACD is more likely to succeed long term than DVD-Audio, and it is this, along with the somewhat simpler engineering challenges involved, which provide the best clues why the SACD Standard reached the market in advance of a universal player. For reasons that hardly need spelling out, it is also likely to be significantly more affordable than any Krell badged universal player. But there is a more direct reason why the SACD Standard should be of interest to anyone with audiophile intent, which is that unlike all but a tiny handful of competing SACD players, this one does not start life as a DVD player. It limits itself to playing SACD and CDs. There are no video capabilities at all, and this can be expected to pay sound quality dividends.

A quick note about the limitations of the Krell, which has only analogue outputs from SACD, though digital outputs are available in the usual way from CD. There is no encrypted digital interface such as the Denon Link, or the various Firewire/IEEE1394 flavors adopted by Sony and Pioneer. At the present state of the technology, this is not necessarily much of a handicap. Although there are sound reasons for performing D/A conversion as late in the signal chain as possible, there



is only a limited amount to gain unless the D/A circuits in the amplifiers are convincingly better than those in the player. The reality is that few multichannel amplifiers are built to true audiophile standards, if only because most of them are designed first and foremost for home theatre rather than multichannel music.

Although it has Standard in the name, this model is a thoroughbred which deploys familiar Krell technologies, among them ultra wide bandwidth, balanced mode internal circuits, and a variation on the current mode topology that is increasingly being used elsewhere by Krell as an alternative to the usual voltage mode gain stages.

Build quality is as good as it looks - and it looks very good indeed, not just in the pictures but also in the flesh thanks to immaculate detailing and a top class finish. The player is fabricated from brushed aluminum panels joined together with solid polished corner pieces, which gives the player immense strength and complete freedom from sharp edges as well as a non-magnetic structure. Internally, the player is equally impressive. The Philips sourced player mechanism is fitted inside its own enclosure inside the main housing, providing what amounts to a double box arrangement as part of an anti-microphony strategy. Power supply arrangements are equally elaborate, and boasts a switch mode supply to drive the transport mechanism and a toroidal transformer for the analogue stages, each fully screened, with multiple stages of regulation.

Digital signals off disc are handled by three Burr Brown PCM 1738 hybrid 24-bit/192kHz DACs that operate in differential mode which suits the circuitry downstream, and which handles DSD and PCM data natively. The analogue stages are handled in different ways for the main front pair and the remaining channels. The main channels use a sophisticated ultra-wide bandwidth, fully balanced current mode topology to drive the balanced XLR outputs directly, though single ended outputs are also available. The remaining four channels are handed by simpler voltage gain stages, an accommodation presumably deemed necessary at this price point. Virtually the whole of the complex circuit, which makes extensive use of surface mount components, is accommodated on a massive single PCB that takes up most of the room inside the chassis. The Krell current mode output stage has a wide bandwidth even by SACD standards, though the player lacks the CAST current mode interface featured on Krell's top of the range components.



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Outputs are available in conventional single ended form using quality phono sockets, with the main output pair also available at higher quality from balanced mode XLR sockets. The player is also equipped with an input for an external remote control receiver, with trigger in and outputs and an RS232 control socket for use with custom install systems. The front panel control buttons however are very tiny, and the legends can be unclear under some lighting conditions. The remote control with its domed membrane switch pad matrix is also not wholly successful. It has the feel of a get you started device rather than the real thing. But the control logic is helpful, and the player runs sweetly and smoothly. The one unexpected (but not unique) feature is the range of digital filters that can be used to fine-tune the player: two for CD and four for SACD. The standard maximum bandwidth, brickwall filtered Filter 1 setting generally gave the best results in practice.

Speaker management is as primitive as with most SACD players. There is no bass management at all, since this would involve conversion from DSD to PCM with inevitable sound quality losses. The ITU arrangement of five identical speaker spaced around a circle, with the listener positioned at the center, is preferred as a starting point.

## Sound Quality

Over this side of the Atlantic (UK), the Krell SACD Standard has had a rather polarized reception, an early high profile review in one magazine (Ignoring some of the subtleties of the argument for the sake of brevity) concluding that the Krell failed to excite as a CD player, and crucially that its SACD performance did not convincingly outstrip CD.

Naturally, this excited my curiosity, and when I had the opportunity to audition the player, the first order of business was to find out if SACD really did or did not outperform compact disc. But how? The obvious way was to A-B test the stereo CD layer with the stereo recording on the SACD layer of a selection of hybrid recordings. No single disc would provide a definitive test because the different recordings are not necessarily the same, and if the original source is PCM (which is often the case), the SACD recording may not be able to lay claims to any improvement. But it quickly became apparent that there were indeed definitive differences between the two formats when tested this way, and that auditioning more discs reinforced the basic observation that SACD adds something significant to the baseline CD performance. More on this shortly.

As a CD player, there is a gulf between the SACD Standard and the

top of the Krell line, such as the KPS25 for example, which I was able to compare, albeit briefly, and not under controlled conditions. But I have long experience of the KPS25 that I know to be a player (and preamplifier) of extraordinary power, resolution and authority, a player capable of painting the architecture of a musical performance like few others. It also costs several times as much as the SACD Standard or most other players for that matter, and if it is not in a class of its own, it is very close run thing. But the SACD Standard in CD playing trim is far from disgraced in the comparison. It is still a very classy player, with an exquisite sense of detail and an organic way of reproducing music that makes many other players sound mechanical by comparison. Tonally it is neutral, and subjectively it is well extended in the bass and even more so in the treble. The sense of openness and liveliness at this end of the spectrum is especially striking, but this is not achieved at the expense of tonal brightness. The bass is good too, but unexceptionally so. It goes deep, stays tuneful and is well integrated, though it can sound slightly soft texturally, but it takes a particularly incompetent CD player to mess up in this region, and the Krell isn't, and doesn't.



But it is the performance of the Krell when playing SACDs that really sets this player apart. What the CD playing section of the Krell conspicuously doesn't have, and which the SACD section has in spades, is the ability to reproduce the scale of a musical performance. When listening to compact disc (and this is something that may not be obvious until you've also heard the same recording from SACD), the ear is naturally drawn to the leading element in the mix -- typically the soloist or lead instrument. It is the mark of a good CD player that it is still possible to follow background instruments, or individual parts or instruments in a group, even when they are not the primary focus. But SACD through the Krell (and remember we're talking about stereo SACD here) offers a much broader focus.

Perhaps more correctly, it offers no focus at all, and that's precisely what makes it so compelling. Yet this is what makes some observers complain about, that SACD lacks presence. It isn't so. SACD offers broad, wide soundstaging and a natural sense of distance and depth. Lead instruments and voices are not favored unduly, but you do get something close to what you hear at a live musical event: namely a real sense of scale and breadth, and a quality that hints at envelopment even through two loudspeakers, without the usual goldfish bowl magnification of the centre of the soundstage. It is the antithesis of the of horn gramophone effect, where the performers clustered around the recording horn and played as loud as they could manage to make themselves heard. Switch to multi-channel and the

effect is even more holographic, with more grip and the same exquisite sense of detail, though as usual with SACD the rear channels levels are often than not far too high for comfort.

There were individual discs where the SACD sound quality (still in stereo) was difficult to distinguish from the CD recording, but this was most often with recordings that were not particularly good to start with. Better recordings, one example used in this test being the Benjamin Zander/Philharmonia *Mahler 6* on Telarc, simply sounded more finely detailed and lucidly expressed via SACD. The slight sense of a cartoon caricature, all precise leading edges and little substance that can undermine compact disc, is much better handled by the Krell in high resolution mode, where the music seems subtly but noticeably more natural and expressive. It simply sounds better.

## Conclusions

Although the Krell SACD Standard is not exactly bargain basement given the recent high tech universal players from Pioneer, Denon and others that also include digital outputs from DVD-Audio and SACD and high-grade video, at prices that Krell can't hope to match. The SACD Standard nevertheless represents extremely good value for money by going directly for the jugular with a bullet proof player that does a basic job supremely well at what by high end standards is an extremely realistic price.

## Specifications

Type: SACD/CD player

Frequency Response: 20Hz to 20kHz SACD & CD (+0.0,-0.5 dB)

Signal to Noise Ratio:  
SACD 105dB (A weighted)  
CD 108dB (A weighted)

Total Harmonic Distortion:  
SACD -75dB  
CD -82dB (20Hz to 20kHz)

Analogue Audio Outputs: 1 pair balanced XLR connectors (L, R channels), 6 single-ended RCA

Digital Audio Output: optical & coaxial, CD only

Inputs: IR in, RS232

Triggers: 12 V input and also 12 VDC output via a 3.5 mm mini plugs

Dimensions: 17.3 x 5.7 x 16.5 (WxHxD in inches)

Weight: 25 lbs.

Finishes: black or silver

Accessories: wireless remote control, 4 spikes and cups included

Price: \$4,000

## Company Information

Krell Industries Inc  
45 Connair Road  
Orange, CT 06477

Voice: (203) 799-9954

Fax: (203) 891-2028

E-Mail: [krell@krellonline.com](mailto:krell@krellonline.com)

Website: [www.krellonline.com](http://www.krellonline.com)

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