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Confessions of a Digital Hater: A vinyl-entrenched Phillip Holmes adores and nitpicks the Blacknote CDP300 CD player

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Specifications:

Frequency response: 20hz - 20khz @ +/- 0,3db
Analog output level: 2,5 volt rms
THD (total harmonic distortion): 0,05% max.
Signal-noise: 90dB
Dynamic response: 125dB
Speed fluctuation: 0,0001% max.
DAC: 24bit – 192kHz
Digital output: 75Ω
Analog output: stereo RCA & XLR
 Power supply: 100/260volt, 50/60hz super linear
Power consumption: 50watt max.
Dimensions: 17 W x 5.7 H x 15 D (inch)
Weight: 26lb
MSRP: \$4,316

U.S. Distributor:

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 P.O. Box 1909
 Carolina, PR 00984-1909

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 or

submit online question form:
<http://www.koetsuusa.com/contact.php>

I admit to being a digital hater. I've always felt that digital never sounded as authentic as analog. Interestingly, things are changing. Over the last few years, I've started hearing digital sources that sound dimensional, have good overtones and don't cause listening fatigue. I'm not sure about the technical details behind the improvements. The CD is still stuck with the same limitations, but CD players are getting better. It is what it is: progress.

I have a hypothesis as to why the latest generation of CD players is closing the believability gap with analog. Designers are finally using subjective measurements with their objective measurements to get closer to the goal. For the first 20 years or so of red book CD, designers and manufacturers were operating under the assumption that the 16bit/44.1kHz standard should create realistic sound when perfectly decoded. Engineers looked at the specs; and being engineers, they felt that the specs were good enough to be equal to, or better than, analog. They then did the best they could to design machines to accurately decode the digital data, with nothing added or taken away.

I can't fault the early designers for their failings. It took several decades to get great sound from records. We were expecting the same progress from digital in a couple years. Engineers knew how to measure and qualify in objective terms, so couldn't understand why there was a believability gap with analog, especially when they were accurately decoding the CD. The point is that the best designers in both the high-end and mass market created "perfect" measuring CD players years ago. What was put on the CD was coming out of the CD player, or at least every test they knew was telling them that they had a nearly perfect player. At the time, the budget NAD and Rotel CD players sounded more organic and pleasing than the extremely expensive products from Theta, Levinson, etc.. Yes, the expensive players had more bass slam, better imaging, and those other audiophile goals that we strive for. The problem is that the designers couldn't make up for the inherent flaws of the 16/44.1 digital process. Even the early tube products, like the VAC-DAC (really gorgeous design), the Sonic Frontiers DACs, and others, didn't do what a good vinyl front-end could do.

Today's designers, who are more willing to approach audio subjectively, are comparing digital to analog, and are looking for answers that will make CD digital sound like analog. I submit that if something starts out flawed like 16/44.1, then it's okay to take some liberties to achieve a more aesthetically pleasing result. If the original recording has limitations, shouldn't the designers try to find solutions which somehow cover up or undo those limitations? It's audio! If it sound like the original, then it is good, regardless of how it gets accomplished.



All the preceding verbiage is not meant to imply that the Blacknote CDP300 sounds better than most other digital products I've heard, or that it is euphonic, colored or full of artifacts. On the contrary, I'm sure it measures fine. I wouldn't be surprised that an oscilloscope, or other measuring device, would be hard pressed to find meaningful differences between the Blacknote and other lesser sounding players. But, somehow, this player manages to breathe life into digital, where some other cost-no-object, technically tour-de-force players churned out two-dimensional sound, turning musicians into cardboard replicas. There must be something unique about the design that is putting back what the other players have taken away. The way I hear it, it sounds like distortions are being un-distorted, and information suppressed in the digital process is being put back. As I said before, I don't need to know why the Blacknote sounds good, I'm not a designer. However, I will relay important points in the following that I think you, our important readers, should know:

"The internal DAC uses a proprietary filter that enables the unit to reproduce a very large bandwidth with low signal compression.

The Digital to Analog stage is managed thru customized DACs made by AKM (Japan) and Burr-Brown (Texas Instruments, U.S.A.). The proprietary circuit design of the DAC enable the CDP 300 a real 24bit resolution with the over-sampling 368 higher than the standard CD players (44,1KHz).

Technically Speaking (Verbatim from Blacknote):

During PLAY mode the STAND-BY button turns off the display for user convenience. To let unit turn in stand by from the remote the CDP300 must be in STOP mode.

To access directly to the tracks dial the number and wait for automatic track access.

The Clock generator is designed around the Burr-Brown PLL1705 microchip. The PLL1705 is able to generate a very low jitter phase error, one of the lowest today available: 50-12. (50.000 billions of second.)

The CDP 300 features a sophisticated tube analog output stage based around two 6922 tubes. Such new output stage is a true balanced tube design no-matching any transistor or j-fet in order to get the highest sonic performance.

The transport motor controlled by an innovative power generator enables the CD player to lower the speed fluctuation to less than 0,0001% in any electrical system within 100 to 260 volt range.

The transport mechanism is of the drawer type and is designed to achieve the disc rotation stability at its best with a special circuit named Natural-Speed™ able to manage the speed of the disc down quite as much as an analog turntable. The Natural-Speed™ also tunes the transport motor in order to virtually erase the generated spinning vibrations.

Also the innovative power generator used electrically isolates the CD Player to guarantee the best sound performances available.

The power supply is made with four different sections and managed thru four dedicated custom transformers. Any transformer supplies the power directly to the Digital Stage, the Analog stage, the Transport and the other CD Player powered stages including the display.

The whole power supply is stabilized and rectified with sophisticated and over dimensioned Current Generators exclusively Blacknote made.

The Analog Power Supply is managed thru four OP chips singularly powered with a special multi inductive power supply.

The Power supply dedicated to the mother board and the DAC board is decoupled thru two "fused silicon" transformers specially shaped by Analog Device.

The extra large alpha numeric display can be customized and switched off during play mode in order to stop working any voltage power dedicated inside the unit.

All the functions and operativity of the CD player are controlled with the latest generation Texas-Instruments microchip programmed with a special software able to manage any eventual necessary future up-grade of the unit.

The chassis is made of shielded steel painted with an anti-resonant lacquer to help damping vibrations."

So, to paraphrase, the CDP300 is a technically advanced player, using custom designed processors, not off the shelf parts, with an overbuilt power supply for each section, in a heavy chassis, with a tube output stage.

REPEAT mode works on a single track repeat pressing the button once. Repeat all the disc pressing the button twice.

The POWER button works only as stand-by. To completely turn OFF the unit the panel ON/OFF button must be used. Turning OFF the unit from the remote will leave the output circuit section completely ON.

The PROGRAM 1 & 2 buttons work only to set the unit and special functions not available as default.

The CDP-300 is a CD Player made in a dimensionally standard rack chassis.

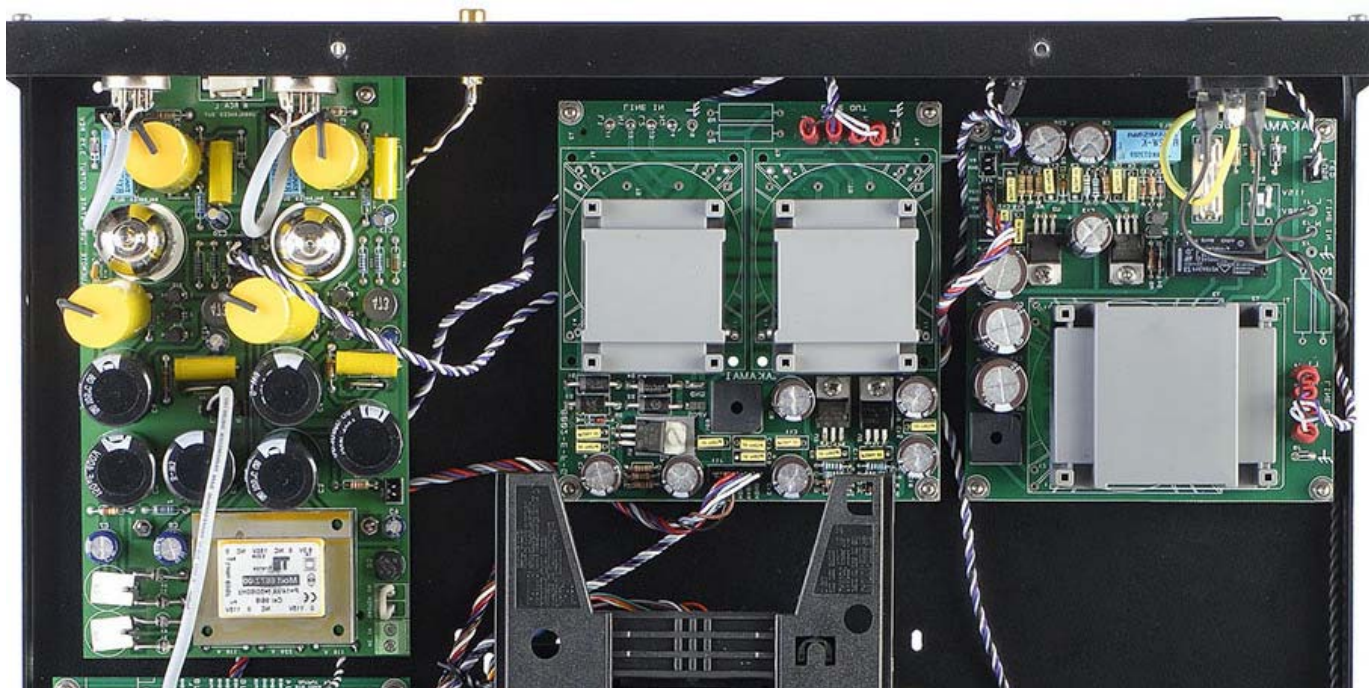
The chassis is particularly heavy to help dissipating vibration feedback.

The CDP-300 features two 6DJ8/6922 s on the output stage

The Natural-Speed™ system enables the unit adjust the disc rotation speed depending on the effective need improving the laser track ability.

The four transformers Super Linear Power Supply allows a precise and fine voltage setting in any specific critical area of the electronic circuit where variations may affect the sound quality.

The Proprietary Digital to Analog converter allows the highest audio performance.



I paired the CDP300 with various combinations of the following: NAT Audio Plasma preamp, Stereoknight Silverstone-Balance TVC, Stereoknight M75 monoblock amps, Sanders Sound Systems 10B ESL speaker system with matching ESL amp, modified Maggie 2.6r, the Davone audio Rithm speaker, the Jaton Real A&V-803 speaker, Rita-340 integrated amp from Grant Fidelity, Plinius SB-301 power amp, extensively restored and modified Heathkit W3m monoblocks and a host of different cable choices.

“Due to the particular kind of item the warranty does not cover the tubes at all”.

The preceding is from the warranty portion of the manual. I *think* Blacknote is telling us that we cannot roll tubes. The manual also states: “The substitution of the tubes must be done exclusively from an authorized Blacknote® technician otherwise the warranty will be invalidated.” Just to tempt fate, I tried to open the unit. There was a piece of tamper-proof tape that lets Blacknote know you’ve been messing around inside. Also, I didn’t have an Allen wrench of the correct size. Therefore, I did NOT open the unit, and there was no tube rolling---even though I was sorely tempted.

This raises a few questions. Do the technicians need to specially select tubes for balanced sections? Do the technicians make some kind of adjustment to the output section? For instance, do they adjust the gain or bias of the individual tube sections for proper function of the balanced output? If Blacknote responds to this question, we will publish the answer. Since the unit functioned properly, sounded great and seemed to have low noise, there was no reason to contact Blacknote for technical assistance.

LISTENING



As is often the case when a reviewer is enjoying the music, I didn’t take a bunch of listening notes. I just wanted to listen to more music, which is what I did. But here are the notes I did take:

Thelonious, Alone In San Francisco, OJCCD-231-2, is something every jazz lover should have. Monk’s solo playing is more revealing of his soul than his jazz combo work. He’s freer to express himself, to subtly change speeds, to quit an idea and immediately go on to a new one. I



felt closer to the performer than ever. I could hear and feel Monk's foot tapping. I could hear the way the soundboard amplified the tapping and the action of the damper and pedals. I could hear the size of the piano, and the more distant humming of Monk. This is a 1987 remastering, and whatever magic the Blacknote does, it makes this CD sound fresh and vibrant. I felt transported to the studio.

On the Eurythmics' *Here Comes The Rain Again*, the soundstage was seamless, deep and wide. Images were well outside and behind the speakers, to a much greater extent than I usually hear from digital. Bass was tight, with good, though not exceptional, impact. Annie's voice was sensuous and palpable, the thing that seemed to be the hallmark of the CDP300. Contrast between main vocal and background vocal was nicely contrasted, with two different acoustic spaces clearly audible. Likewise, on "Love Is A Stranger", separate spaces either real or artificial, are contrasted against each other, without smearing or blending. The vocal doubling was beautiful; very clean and delineated.

The CDP300 did a good job of reproducing all the characteristic sonorities of a large wind ensemble, in mannerism similar to a military band. The Chandos series of Percy Grainger recordings features his writing for wind ensembles on CHAN9549 and CHAN9630. Played here by the Royal Northern College of Music Wind Orchestra, these compositions deserve to be considered major works, on a par with symphonic compositions. Grainger made full use of the many different sounds a large wind ensemble can produce. For instance, not only do you have the clarinet, but the clarinet has two distinct tonal regions, depending on what octave the instrument is playing. Not only do you have french horns, but you have open, stopped, and muted french horns. On "The Gum-Suckers March", Grainger calls on the full range of colors, plus adds all sorts of extra bells and chimes to the percussion section. In the process, he creates a glorious cacophony, more unique than anything you would hear from a symphony orchestra.

I know all these different sounds from my college band days. Most CD players cannot reproduce these varied sounds. Typical digital players destroy the overtone structure that differentiates the oboe from the English horn, the e-flat clarinet from the b-flat clarinet; or horn mutes from horn stops. The Blacknote can reproduce the all-important overtones that give each wind instrument its characteristic sound. Not only that, but in all this racket, it manages to put space between instruments and illuminate the size of the recording venue.

The box set of The Beach Boys' *The Pet Sounds Sessions* is a near audiophile-level recording of lovingly crafted pop music. The producers went back to the original working tapes to create true stereo mixes (it was only available in mono and fake stereo before this project). On "Caroline, No" and "God Only Knows", two masterpieces, the sound is lovely. The Blacknote recreated the passion and emotion the way my DCC mono vinyl reissue did, but with a much larger space (due to the high quality stereo mix).

On *Dire Straits*, Mark Knopfler's guitar was well outside the speaker on "Down To The Waterline". The acoustic on "Water Of Love" was very large, and likewise imaged outside and behind the speakers. The dobro was dynamic and life-like; I could hear individual strings "jangle" against the body.

ADORING THE BLACKNOTE CDP300



Well, duh! I like this player. To paraphrase a sappy movie line: "you make me want to be a better CD shopper". I looked through the music bins at the CD stores, went on Amazon, and dug through my neglected CDs. I didn't say to myself: "I need to see if that is available on vinyl". There are recordings only available in digital. There are many instances where the digital reissue is better than the original vinyl pressing, whether due to



mastering issues, or noisy surfaces, or extreme rarity. Most recordings won't be issued on 45rpm single-sided vinyl, let alone 180gram 331/3 rpm "normal" pressings. I still like good analog better, but the Blacknote brings CD digital up to a level where the differences are no longer annoying. To get analog playback that is equal to the CDP300, it will take more money, more patience and finer tuning. And don't forget that records are more fragile, usually cost more than CDs, and need to be cleaned. By the way, I don't clean my CDs. Life is too short. The CDP300 is better than entry-level phono cartridges, arms, tables and phono stages that I've used. It's even better than a lot of expensive analog gear I've had over the years.

I haven't heard all available high-end CD players; nobody has, or will. There could be a better player available for less money. (*A very fair statement. –Ed.*) Prior to the CDP300, the only other high-end CD players I wanted to own were from Audio Note UK. By employing expensive coupling transformers, exotic parts and classic vacuum tube methods, the Audio Note players make digital sound rich, smooth and lovely, and rarely ugly or strained. The CDP300, in comparison, sounds lovely while being quite accurate (accurate in the good sense, not sterile or uninvolved).

In a nutshell, the CDP300 images much like analog. That's the reason I like the sound of it. With analog, there is a sense of depth and width, creating the three-dimensional sound we want. On occasion, I've heard it from other digital sources, but not to this degree, and not with this kind of consistency. On well recorded CDs, you will be able to hear the size of the venue. Compact vocals are in juxtaposition to larger images of physically larger instruments, which is a rare achievement in digital. The ingredients in this recipe are the great job the Blacknote does with subtle spatial cues, trailing ends of notes, phase relationships, and the extremely low noise of the DAC and output stage.

The tonal balance is flat. I didn't notice peaks or dips, though the treble extension is a touch better than the bass extension, something I haven't heard on previous CD players. On occasion, things could get a tad aggressive, but they were CDs that were mixed to 0dB (the max digital level). At 0dB, you are telling the analog output stage to play as loud as it can. On the one player I've had that could play at 0dB without any noticeable strain, the "accurate" portrayal of those poorly mastered CDs was unlistenable.

It's one of the many failings of digital. The fact that there is even a defined maximum level, the point at which you can't go any louder, just encourages all the moronic imbeciles in the so-called *music industry* to mix everything to that maximum point. If you don't, then the other producer/mastering engineer has "gone to eleven", while you only went to ten. It's gotten so bad that some of these "producers" and "engineers", and I use those terms loosely, are starting to move the average level of the track to the 0dB point. Then, using their software, they slice off any peaks that would go above 0dB, which is for digital something that would only produce 100% distortion. These poorly mastered CDs in other machines have always sounded squashed, pinched and harsh. The CDP300 handles stupidly mastered CDs better than most other players. I'm not saying it works miracles; just that it makes some iffy CDs acceptable. Compared to my aural memory, the occasional aggressive quality of the CDP300 sounds like what I've heard in other 6DJ8 based products when they were overdriven. It's a tube that can sound a bit peaky or harsh, depending on what tube you choose, and the related circuit.

The speed of the player is at least as good as most other players I've used. The microdynamics are much better than average, while the macrodynamics are appropriate. Plucked strings, piano, bells, chimes, drums, cymbals, etc., all start cleanly, with no hint of overshoot. The attacks are integrated in the music, where many other players hit you over the head with transients just for the "wow" factor. I do feel it softens bass impact a little (see below).

Since I am a reviewer, I feel like I must justify my existence by nitpicking products, regardless of how good they are. Accordingly, I have prepared a list of nits that have been picked in the following.

NITPICKING THE BLACKNOTE CDP300

The bass isn't as forceful as other top quality players. The bass doesn't go quite as deep, taking a little of the drama from pipe organs, bass drums, special affects and the lowest notes on the string bass and piano. The performance is still very good in this regard, but doesn't keep up with the splendid imaging and the realistic overtones. If your musical collection is made up of bass drum solos, organ pedal-points without the rest of the music, or pianist striking the bottom note repeatedly, then this isn't the player for you. On the other hand, if you listen to chamber music, jazz quartets, and the like, you will never hear any deficiency.

Befitting a product from Italy, there are some odd ergonomics. For some reason, after putting all this emphasis on the DAC and output stage, the RCA jacks fall short. They are too close together, and seem out of place. The DIGITAL OUT jack looks to be of higher quality and has tons of real estate. It's just odd. As good as the player sounds, I wouldn't even want a digital out. Rather, why not a *Digital In*? On the other hand, the XLR jacks are of first-rate quality, look good, feel solid and have plenty of room.

The front panel is a little too much. There are these two *huge* buttons for POWER and EJECT, and little tiny buttons for everything else, which are almost crowded out by the incredibly thick front panel. On top of that, the two *huge* buttons tend to rub against the incredibly thick front panel.

The Display. Hmm. My wife nicknamed the display "Vegas Lights". Before I showed her how to turn the display off (which gets rid of the 2000-point font, and retina burning brightness), she put tape *over* the display. By the way, turning off the display does benefit the sonics. I'm sure there will be many who think the looks are stunning, like a Lamborghini Murciélago. By the way, I hate the Murciélago. I'll take a Ferrari Superamerica or Sessanta--droooooool.

There was a very minor noise issue. When hooked directly to the input of the Sanders Sound System crossover/amp, where one can use the crossover's gain control as a preamp, the unit had a low level 60Hz hum. When I cranked the Sanders to insanely loud levels, I could just barely hear the noise at my listening seat. When I say insanely loud, I mean it. Connected to other gear, this noise was either not there, or it was covered up by the noise of the preamp/amp the Blacknote was partnered with. It never intruded on the music. My assumption is that it is a ground loop issue since the Blacknote uses an IEC (grounded) wall plug. I have multiple AC runs to my room, with amps separate from sources. The occasional ground loop issue is more than made up for by better dynamics and less strain.

All these things are secondary to how the unit performs. A Murciélago does what it's supposed to, which is go insanely fast and grab attention. Likewise, you put a CD in the Blacknote and it plays music, not merely sound. Is there competition to the CDP300? I'm sure, but at what cost? As I said before, to get the same quality of sound from analog, you are going to spend more money, and invest more effort. If you are looking for a digital source that sounds analog-like, you need to put this unit on your audition list. It is a highly recommended player!

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