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Audiolics Anonymous Chapter 92: Esoterics

Review By Bill Gaw

Welcome to our June meeting for those suffering from Audiophilia Nervosa, defined as the intense need to continually improve upon our systems no matter what anybody else says. While not a psychiatrically approved diagnosis, it is a form of obsessive-compulsive behavior that could be treated with multiple medications, but what's the fun in that. I'd rather spend my money on improvements to my system.

On the other hand, about a year ago, my system was sounding so good that I felt at the time that further improvement was unwarranted, that I could be happy with it forever, and if I had not been a reviewer would possibly have been cured of my incessant tweaking behavior. Unhappily for my bank account, this was not to be, as you can perceive from my past few columns. Since then, there have been marked improvements in control of electrical gremlins, speaker cables, interconnects, digital storage, etc., which proved to me that audio reproduction is still not perfect and improvements are still being made. This is made clearer every time I attend a live unamplified classical concert. While my system comes close, especially with DVD-Audio or SACD surround, one can still perceive, even in the next room, the difference between live and recorded, even with the best discs.

Having said that, my system has had three significant equipment improvements in the past three months, two of which will be reported on today, and one next month. Each is considered to be close to the state of the art, and all have demonstrated that no matter how good your system sounds, there will probably always be something that can be improved upon.

Teac Esoteric SA-60 Audio Disc Player

While the above review is probably of little value to most of you, this section should be of interest to the vast majority who are into digital audio. I've been very content with my 3-plus year old Parts Connexion modified Denon 5900 universal player but felt that it may be time to update as digital has advanced significantly in the past few years. Sony may have thought that there was "perfect sound forever" back in the early 80's, but its only been in the past couple of years, 25 years after digital arrived, that it may have caught up to analog. Have been waiting for a decent High Definition Universal DVD player with the ability to decode Dolby TrueHD and DTS Master which is supposedly better than DVD-Audio and SACD, but nobody has come out with one yet that can do it. Like with previous generations of audio-video products, audio is being treated as the stepchild. HD DVD and Blu-ray players have advanced the video side to its highest standard of 1080P output while none of the players can even decode the mid-level Dolby and DTS streams, never mind their best iterations, and until recently couldn't even transmit it to an external decoder, of which there still aren't any anyways. Plus the only so-called universal player on the market that will do both video systems, from LG electronics, not only can't do the high def audio, but also can't do some of the special video stuff of HD DVD that less expensive players can. Plus none of them can do DVD-Audio or SACD reproduction, so all are a complete waste of time for audiophiles.



While there are many universal players out there that can do several audio standards with very good audio quality, at least until now, all of them do not seem to be able to reproduce any of the types quite as well as single standard top of the line players that have been tweaked for that particular type of disc. I and probably most of you don't want to have separate CD, DVD, DVD-Audio, SACD, HD DVD and Blu-ray players filling our racks. The best, such as those from Meridian, Linn, Sony, etc., can do one superbly, and possibly two or three standards very well, but either fall flat with another or not do them at all. Also, after 25 years of Redbook CD, it

appears that some of the manufacturers have finally figured out what was wrong in the reproduction of CD's with previous generation machines. There's been a Renaissance in digital reproduction such that maybe now we are actually picking up all of the bits of information from the discs and properly decoding it to analog.

Sadly for the digital disc and my generation's craving for collecting tangible reproducers, such as tape, vinyl or disc, within a few years all of the standards may be obsolete as ever more high speed internet and ever more cost effective computer memory may wipe out their need. Or, if they get their act together, maybe HD DVD or Blu-ray or some combination may finally be able to decode the lossless studio-master quality Dolby and DTS tracks on the discs to high-end standards, supplanting DVD-Audio and SACD. But I think, like with vinyl and CD, we'll still want to be able to play back those discs to the best level possible. On the other hand, it seems more and more of the younger generations don't really care about quality, just quantity. They run around with their digital players with earbuds using encoding 20 times worse even than CD and feel happy with the reproduction. Will there even be a market for high-end audio reproduction in the future? Even the major companies such as Sony, Philips, Pioneer, etc., have stopped producing their high end transports and reverted to plastic decks. Finally, video is supplanting audio-only reproduction. Why just listen to music, no matter how high the quality of reproduction, when one can also view the concert in high definition at the same time. Once the high def video systems allow the audio to catch up, we'll all be able to see and hear our favorite artists possibly better than what's available in the average concert hall seat.

So what company in its right mind would pay the experimental, development, tooling and production costs to bring out today a high end player that cannot decode any of the new audio standards and cannot do any video? Why, Teac, <http://www.teac.com/> of course. "Teac, you say!! I thought they sell only mid level audio equipment!" Actually, they have divisions both for high-end audio, called Esoteric, and sell some of the best professional recording and reproduction equipment through Tascam, another arm of the company. For instance, my DV-RA1000HD digital recorder is a Tascam.

When our editor first asked me if I wanted to review a high-end universal audio-only player, for the above reasons, I thought TEAC's Esoteric division must be out of their mind. Who with all of their marbles intact would spend \$3500 for the SA-10, to \$4600 for the SA-60 to \$26,600 for their P-03 D-03 reference digital system when they don't do video, and will have absolutely no ability to decode the new high definition audio standards coming out on HDDVD and Blu-ray? As I thought about it, it dawned on me that there probably is a market out there for them; mainly audiophiles looking for the best DVD-Audio, CD and SACD reproduction who will then be able to wait until the high definition brouhaha settles down, and those who have absolutely no interest in video. In addition, it's doubtful that either of the high def video standards will continue to offer DVD-Audio and SACD as part of their players, so one will need a proper playback method for the soon to be obsolete standards.

So what's the big deal about bringing out a new high-end player and why the significant expense for these TEAC units; the cost of developing a new high end transport mechanism? It turns out that both Philips and Sony have stopped producing their best transports, thus stranding other high-end companies that can't afford to produce their own. Teac has actually come up with two of them; the VRDS-Neo (vibration free rigid disc clamping system) transport for their super high end "if you have to ask you can't afford it series" and for those of us with poorer bank accounts, their new VOSP (Vertically aligned optical stability platform) transport for their less expensive (under \$8,000) series, which they are also offering for sale to other companies. Both are mostly-metal construction, with the Model 1 Series VRDS-Neo weighing 14 pounds just for the transport.

Since the VRDS-Neo is used in their \$6000 plus units, which is really too high for my Scot blood to tolerate, and they had just come out with new lower priced SA-60 at \$4600, and I was not interested in going the video route with their DV-60 universal video player at \$5600, and I also wanted to be able to play multi-channel and DVD-A's which the SA-10 can't do, Mark Gurvey of TEAC graciously offered to send me their SA-60 audio-only player for review. Unhappily, as I was going away on vacation and didn't want it sitting on my front step for a week in the winter, I asked him to hold shipment on it. Through a mix-up, the unit that was coming here went someplace else and, as they are supposedly selling like hotcakes, another was not immediately available. Happily, Mr. Gurvey was able to find a replacement after a couple of weeks, and even offered to give me a three to six month review period, with the condition that I didn't do any intense listening until the unit had broken in for 250 hours. That's right 10 days and one hour of continuous playing. Did I listen to it as it was breaking in? Of course! Was there an improvement in that time? You betcha. But more on that later.

The SA-60 is a 37 pound behemoth weighing more than most amplifiers, with a silver finish, the chassis consisting of aluminum and steel, basically built like a battle ship. The front plate is minimalist brushed aluminum with three buttons on the left labeled "standby-on", "upconvert", and "play area". The first is self-explanatory, with the unit remaining warmed up at all times, using only 2 watts in standby and 28 watts during playback. The "play area" button determines which of the many types of playback are available on most discs, be it the multi-channel or two channel SACD or DVD-Audio area, or the CD or Dolby or DTS areas. "Upconvert" will be discussed later. Above these are four lights designating whether the 16/44 signal from CD is being upconverted and whether SACD is being played back directly as DSD or being converted to PCM before D/A conversion or transmission through the FireWire connector for external conversion.

The central black area contains the door for the transport mechanism and a screen designating the play mode, track, time, etc. The six buttons on the right are for the standard transport controls. The back has six gold RCA's for surround output, two gold XLR outputs for two channel single ended and balanced output, and digital RCA and Toslink output for PCM up to 24-bit/96kHz two track (192kHz and 176kHz down converted to 96/88 kHz) and DD-DTS 5.1. The unit can also take a DD or DTS or DVD-Audio signal, re-encode it to two-channel PCM similar to Dolby Pro-Logic and send it out to a pre-pro receiver for surround decoding through either the 2-channel analog or the digital outputs. In the setup, one must opt for two-channel rather than multichannel output for this to function. This would be helpful for the few of us who haven't upgraded to a receiver with 5.1 analog inputs for DVD-Audio decoding. It actually does a very good job of it, especially with my Lexicon MC-12 using its proprietary Logic 7 decoding, but Dolby Pro-Logic or DTS Neo-6 should work equally well. While its not true 5.1 separate channels, the results are far superior to just taking the front two channels and trying to get ambiance information from them.



A FireWire output is available for those pre-pro/receivers that can do external D/A conversion of DVD-Audio or SACD if one wishes to use the unit as a transport. There is also a BNC input to sync the word clock with an external decoder or word clock generator. Finally there's an IEC and ground plug, with a pretty good line cord. The remote control weighs more than some players and is made of a solid aluminum block that feels expensive. The major buttons are backlit for ease of use in darkened listening rooms and are well laid out. The only thing missing is the ability to change the upsampling on the fly as this would be very convenient as one disc may sound best with one type, while another is best with a different sampling rate. Except for that, setup is very simple using the remote, but several of the setups, such as individual speaker loudness and distance or total volume of the system can't be adjusted while playing a disc. The booklet was very instructive and well written in the King's English, being very clear in its format, although there are a couple of descriptions of functions that leave a little to be desired as to how they should affect the playback. The unit comes in huge thick double cardboard boxes with a total weight of over 44 pounds, so be careful of your back.

Other than the massive cabinet built for both ruggedness and vibration abatement, there are two advances that I think make this unit a winner.

First is the VOSP transport mechanism. As you may be able to make out from the picture, the mechanism is very different from others, with the pickup resting on two aluminum rods along which it can move just like a straight tracking tonearm. In addition it can rotate and move up and down, eliminating off-axis tracking with its subsequent decreased error correction that may distort how the laser reads the pits. Remember that information retrieval is actually an analog system, reading the distance between the beginning and ending edges of the pits to determine the bit information. If the turntable rotation is wobbly or intermittently faster or slower, then the pits will look slightly larger or smaller. Thus the differences heard between transports and discs may not be a function of loss of bits, but just a change in their numerical value or the timing of when they are read.

Also, as the unit reads the pits from the inside to the outside of the disc, the turntable must continuously slow down. Then, the reading head, as it jumps from track to track, cannot be jerky in any way. As the arm is acting like a straight tracker, there is less chance for it to be reading the track obliquely. The disc is on a circular flywheel platform of high mass that stabilizes both the rotation and vibration of the disc. All of these things reduce resonances and vibrations that make the reading of the disc more accurate, thus cutting down on the need for even basic error correction.

Second, there's the digital signal processing. The unit uses three Cirrus Logic 4398 chips for D/A conversion, and can do upconversion of anything up to 192 KHz in the two main channels of PCM. With its Finite Impulse Response Filter (FIR), it upsamples to 8 times the original frequency before D/A conversion and with the Refined Digital Output Technology (RDOT) that goes up to 32 times. In addition, PCM audio can be converted to DSD.

Before D/A conversion, the unit upconverts the signal as follows:

1. FIR 8X: 16/44-48 to 24/352-384Hz, 16-24/88-96 to 24/704-768Hz, and 16-24/176-192 to 24/1408-1536Hz
2. RDOT & FIR 32X: 16/44-48 to 1408-1536Hz
3. In addition, 16/44-48Hz signals can be converted to DSD at 1-bit/64X precision

On to the important stuff; how did it sound? Even straight out of the box it was better than my highly modified-to-high-end standards Denon 5900, and if memory serves me right, far better than any other player that's been in my system, and that's saying something. Not only did the unit pass 16/44 through the RCA digital output, it even sent 24/88 two-channel audio from my home-produced DVD-Audio. Again, there was a marked improvement in musical reproduction compared to using the Denon as a transport. As noted above, with DVD-Audio 5.1 discs, when placed in two channel mode, most of the surround information was included into the two channel signal which could be sent to a pre-pro and decoded into surround. While not as good as true 5.1 it was certainly better than listening to the DD or DTS track of some of my combination DVD-Audio 5.1 DD-DTS discs.

The real enlightenment came after letting it break in and after proper setup. Here I have to be careful with superlatives. In the past I've painted myself into a corner writing that a particular unit was the best thing I've heard or could expect to hear, only to find another product a couple of months later that improved upon the other. Also, one has to remember the "Law of Diminishing Returns," which is very important in audio. While one can climb the nearest hill for little cost except for maybe some lumbago ointment and aspirin afterwards, it costs north of \$100,000 plus several weeks out of your life to climb Everest. In high-end audio it's the same. As one goes up the ladder in audio reproduction, the costs gets steeper and steeper for the sometimes-minimal improvement obtained. Remember, this unit is actually on the middle rung for cost in the Esoteric line, but at \$4600 significantly more expensive than the vast majority of high end players for both video and audio offered by the majors such as Denon, Sony, etc. On the other hand, the source is either the most important qualifier for how your system will sound or the second, the speaker in some quarters felt to be more important. Garbage in - Garbage out as they say.

Trying to hold back on the superlatives, the SA-60 has produced the cleanest most analog-like sound that's come out of my speakers from any digital component. While I'm sure it's probable that their more expensive units, and possibly those mega-bucks transport-converter and disc players both from TEAC and others, such as EMM Labs, Linn, etc., may add some quality or improvement missing from the SA-60, I cannot imagine that there would be anybody out there who wouldn't be satisfied with this unit, unless they possibly had a chance to hear what the more expensive units can do (see below).

First for my few gripes with the unit, which are matters of omission rather than commission. While in the instruction book they recommend directly feeding the unit into a 6 channel amplifier, which would make sense to eliminate the pre-pro, unhappily the unit doesn't have a master volume control, and I don't know of any multi-channel amps that do. The remote control doesn't have the ability to switch between the various digital filters. It would be great to be able to do this from the listening chair instantly. It would also be nice for the instruction book to have explanations as to what several of the controls do. For instance, there is an option called " CD Direct", which allows some of the circuitry to be bypassed, but it doesn't mention which circuitry and how it should affect the sound. Perhaps Mr. Gurvey will discuss this in his words at the end.

Now for the accolades. This is by far the best sounding player I've had in my system for all forms of digital discs. While I've only heard the EMM Labs units at shows, and it rated the best for SACD reproduction, the cost of those units are double to quadruple what the SA-60 costs. DVD-A while not quite as analog as SACD reproduction is far superior to anything heard here previously. Even with CD's that old demon digititis has been vanquished, especially when using the combined FIR-RDOT filters. Not only have the spaces between the digits been narrowed, the discontinuity of the soundstage that 16 bit digital has had appears to be eliminated, with the best CD's sounding almost like Dolby A 15 ips master tapes that I loved to listen to in the 80's. While some people may think, "Bits is Bits", its how they are accurately picked up and translated that makes all the difference. I firmly believe this unit is picking up all of the bits.

Playing DVD-Audio and SACD surround discs takes the music reproduction up another level. The highly modified Denon 5900, which with the mods cost about as much as this unit, is left in the dust, ready for the Audiogon site. The surround effect is immersive. Where before there was some unrecognized discontinuity at the time in the surround effect, the stage now envelops 360 degrees in the horizontal and actually almost fills in the overhead effect. On some Telarc discs that have overhead sounds built into the subwoofer channel, the envelopment is total. I cannot believe that other companies haven't realized how important that third dimension is to the reality of the music.

How is the unit as a transport and how does the unit's sound compare to one of the best pre-pro's out there? I've been fortunate over the past couple of months as videophiles have been selling off their Lexicon MC-12 processors for the new video HD units, which are exactly the same save for their HDMI in and outputs. While this unit does not quite have the fluidness of my previous EAD Theatermaster, its ability to do 8 channel room correction and its superb D/A conversion and surround signal processing put it in a class of its own. With it I can on the fly hear the audio from the SA-60 coming through as 2 channel or 5.1 channel either directly passed through or room corrected and changed to 7.1, or use the coax or Toslink output of the SA-60 with an without correction. In all cases, the sound directly out of the Esoteric beat anything the Lexicon could do except when the Lexicon converted two to multi-channel. Then the preference went to the Lexicon re-digitizing the FIR-RDOT two track analog signals from the Esoteric rather than the coax digital signal even though a second A/D and D/A had to be done.

The majority of CD's sound best to my ears using both the FIR and RDOT filters. While straight CD without the filters was somewhat more open and clean, there was a slight digititis sharpness compared to using the filters. On some other systems, or with individuals that prefer transparency, they may think just the opposite. As a transport feeding my Lexicon MC-12B pre-pro, compared to the Denon 5900 used in that manner, again the sound of CD's and two track DVD-A is far superior, and used in this manner, I can use the room correction circuitry of the Lexicon. In most cases, I still prefer the sound of the SA-60 straight through the Lexicon using the Esoteric DACs and processing unless I use the Lexicon's Logic 7 circuit to change two track into surround. But there's no comparison with multi-track recordings, the Esoteric's sound passed straight through the Lexicon being more transparent.

The bass is the tightest and deepest from any unit that's been here. It rolls into the room, and on multi-track SACD and DVD-Audio envelops one and sets my diaphragm vibrating. Hall space and air between instruments is present in spades. The midrange is tuneful and clean and high frequencies are crystal clear and give back to even 16/44 CD's the normal violin sheen. I was so impressed with it that last Saturday I drove to my local high-end dealer's home where the SA-60 was placed on an ER Audio wood platform with a couple of Walker Audio weights on top to control vibrations. While this was a somewhat unfair comparison, the results were very interesting. The CD player, using a tube output stage did sound somewhat more organic, presenting a somewhat more enveloping soundstage and more tube-like rolling bass, but the difference was less significant than I would have thought considering the price difference and tweaking the other machine had gone through. In addition, his player is strictly 16/44 CD, and wouldn't play the 24/88 two track DVD-Audio I had brought, doesn't do multi-channel, or play SACD. Another finding was that the SA-60 loved the PAD AC cord he had available. In his system, it brought out some of the strengths of the unit that could be heard in my system using the Torus and APC S-15 AC units.

Luckily, I didn't opt for one of their more expensive units as they are certainly out of my reach financially, and if they're as good as Robert Harley stated in the cover story for Absolute Sound's April-May edition review of the \$30,000 P-03 D-03 top of the line unit, I'd be a very unhappy camper. Anybody who's been bitten with the high-end bug knows that once one's heard better sound, one cannot be satisfied without it. My bank account has suffered enough over the past few years. Now I have to decide whether I can go back to my Denon, or sell the Denon and use my home theater computer for DVD-Video playback. Ignorance is bliss. Knowledge can be a dangerous thing to one's pocketbook.

While I wish now that I had chosen the DV-60 model with its video circuitry, at the time the thought was that the video could in some way detract from the audio signal. TEAC thought of that and allows the video to be completely shut down when listening only. I am happy though that I didn't choose one of their higher but more expensive units. Robert Harley in the April-May edition of *The Absolute Sound*, one of our sister publications highly praised their P-03 D-03 \$30,000 combo as one of the best sound and the best built set in existence. If I had heard that one my bank account would probably be even poorer than it is now. As any audiophile will tell you, once you hear something better, it will eat your guts out until you get it.

In summary, Esoteric has come out with a true winner in the SA-60 and it's worth every penny. If you can afford the higher priced units go for it. Otherwise you'll not regret purchasing this unit. For those only interested in two-channel audio, go for the SA-10 at \$3500 or the XO-03SE with the VRDS transport for \$7600.

Specifications

Type: CD/SACD/SACD Multi-channel/DVD Audio Disc Player
Proprietary disc transport, clamp and drive mechanism
Multi-channel analog audio outputs
Digital Outputs: Coaxial, Optical/TosLink, and i.LINK
Word synchronization function (Word clock input/BNC terminal x1)
Proprietary audio up-conversion technology
Updated High-precision 24-bit D/A converter
Esoteric "X-3" technology; horizontal sled and vertical pick-up assembly
Dimensions: 17.4" W x 5.9" H x 13.9" D
Weight: Approximately 37 lbs
Designed, engineered and manufactured in Japan
Price: SA-60 \$4800

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