

Discrete Precision Resistor R-2R Ladder DAC

Date Added: 02/08/2024 by Rick Jacobsohn, sound engineer and producer, New York City

I am simply blown away by how incredible the Echo's End Reference Supreme DAC sounds in my studio. The sound is extremely natural, and detailed without ever sounding harsh or fatiguing. The sound stage is wider, deeper, more precise and more immersive than any converter I've heard in my space. But for me, the most important factor is how easily I can hear even the smallest change in a mix, even at very low levels, allowing me to make faster and more confident decisions. Any tool that helps me do my job better and faster stays in the chain, this converter is never leaving! And it sounds good at any sample rate, from 16 bit 44.1 kHz all the way up to DSD 2x.

Rick Jacobsohn

New York based engineer and producer Rick Jacobsohn has established a multifaceted career in the recording studio and live performance venues. Recent commercial projects include work with many notable artists including Carlos Simon, Kevin Puts, Marin Alsop, The Baltimore Symphony Orchestra, Du Yun, and Claire Chase. He is the original sound designer for Osvaldo Golijov's Ainadamar, Mason Bates The (R)evolution of Steve Jobs, and Karim Suylaman's UnHoly Wars. Since 2007, Rick has been the producer and engineer for The Baltimore Symphony Orchestra. From 2016 through 2022, he also produced and engineered a portion of The Philadelphia Orchestra's weekly broadcasts on WRTI as well as their entire 2020 Digital Stage season. In addition Rick has mixed live sound on numerous productions for orchestras including Boston, Chicago, Philadelphia, and Atlanta Symphonies as well as AMOC, The Atlanta Opera, The Calgary Opera, Lyric Opera of Kansas City, Opera Philadelphia, San Francisco Opera, The Santa Fe Opera, and The Seattle Opera. As an educator, he has led Peabody Conservatory students in the production of two commercial albums and has presented lectures at Ithaca College and Indiana University. At Santa Fe Opera, Indiana University, and Bravo Vail, he has led student and apprentice teams through the process of sound design for opera. Rick holds a Bachelor's Degree in Music from Ithaca College and a Master's Degree in Sound Recording from McGill University.

Date Added: 08/28/2023 by Julian

I thought I would give you feedback on the products I have and the sound of my system.

Products purchased so far.

C-MARC Classic power cord 2 metre Entropic
5 of Firewall 640x (2 of which are C-MARC)
2 sets of Bindbreaker Equipment feet
Power Distributor

and the star of the show Echo's End Reference DAC.

These products have all contributed to making the sound of my system enjoyable to listen to. I now want to listen to my hifi system again, and looking to play CDs which I have not played for a long time (This is testament to how well things are).

When I had the Echos' End Reference on loan it was touch and go whether I kept it. Basically (to my ears) there was too much attack / power to leading edge of strings (guitar) when they came in on the tracks I was using for the evaluation. In one sense a small thing, but when investing that much money I felt things had to be right. I then had an idea, a set of supports I had put in I never gauged the difference they made or not. This pretty much corrected the issue, and along with talking to Elite Audio (UK) I felt mentally more positive (state of mind does have an effect too). After further listening I was then completely happy with the sound.

The change involved removing the supports I had put under, not the CD transport, but the external linear power supply. Hifi to me is not always a science, but behaves more like an art form.

I was really concerned about bass from the Reference seeing other peoples review, but this has not been an issue.

What it is is open and balanced (i.e. covers top end and bottom end equally). On a recent listening it is almost like you can hear the other side of the notes. Beautiful sounds which waft over, and work with my ears (a big thing for me).

Will be looking to add more. Following your advice, more power cables and Bindbreakers. Eventually looking to BackGround 10x Power Base, and your last Newsletter reminded me of a couple of the Blackbodies conditioners.

Many thanks for your company's products and design philosophy.

Date Added: 01/04/2023

Being a truly analog guy, I have always struggled with my digital front-end unit. I have owned my fair share of streamers, servers, DACS. I was getting to the point that I was going to sell my Moon by Simaudio 680D and 280D and just spin records. Not that the Simaudio products were bad they were just, well, too digital still ... and really my favorite DAC was a Border Patrol DAC I had years ago. Maybe it's all these "Chip's" in these modern DAC's and the quality of the components surrounding these chips?

So, I decided to take a step backwards ?

Let's get a separate server and streamer (Innuos ... from Constantin at Atelier 13 Audio) and let's go back to the future and go with an R2R Ladder DAC ... but who's. Well I got on all the forums, read the trade rags, and got even more confused. I had done home demos of some of the more popular DACs the reviewers rage about and still was looking for more.

I reached out to Constantin at Atelier 13 Audio in Nashville, TN. A man I truly trust and have done business within the past. He recommended that we give the LessLoss Echo's End DAC a test along with the LessLoss 640X, and I agreed. I was going to be out of town for a couple of weeks, so Constantin burned in the DAC for 2 weeks while I was out on the road, and shipped it to me in time for my return.

Okay let's get to the point. I got home, the box was sitting in my listening room, and I tore into it. The build quality is fantastic. Looking at this wooden box one would think it is a piece of furniture not stereo equipment, same for the 640X. I connected it all and let it play in background for a week before sitting down to give it a serious listen.

So, the evening came to sit down and put the Echo's End through its paces. Blacker than black background was the first thing I noticed; dead ass silent. Dynamics are astounding, range, depth, detail, breadth, hell it was like listening to my analog front-end. As matter of fact it may even be better in some respects. No digital edginess or shrillness, even with poorly recorded music.

I can not say enough about these wonderfully crafted LessLoss products. I am a customer for life, and I will be buying all my gear from Constantine at Atelier 13 Audio.

The devil is in the details.

Jeffrey Strickling MSME
Dallas, TX

Date Added: 08/24/2021 by Jörg from Dortmund, Germany

[Echo's End Reference, upgraded from Firewall 64x technology to Firewall 640x technology]

When I installed the DAC during the week I hadn't too much time to take a listen during the week.

As I'm very familiar with the Sound of the Reference DAC over the years, I'm pretty sure to remember how it sounds, especially with extremely familiar discs. Some might say, that this is difficult without direct comparison of the DAC with the older incarnation of Firewall modules to the one that is equipped with the actual new Firewall modules, it is new, you want it to sound better, but that might only belong to your imagination. And that might be the case with other gear, tweaks, cabling, whatever, when the difference in sound is very small. You wish it to be,

but you can't be sure.

Now I listened to my most familiar discs again, and the difference is not subtle, it is simply astounding!

Never would I have thought of such a big improvement, coming with the replacement of the older Firewall modules.

Everything is brought out better, acoustic instruments sound incredibly natural and real. Everything has more depth and contour. It simply sounds more energetic and precise. The reverberation of voices and decaying instruments lingers longer than before. Bases are more profound. And again, I'm hearing a cornucopia of details that were previously imperceptible.

And with excellent sounding discs, my room is flooded with sound, I have the feeling I'm bathing in it. It totally surrounds me.

To me, this is relaxed listening with a quality of the highest degree and this comes without any edginess in the high frequencies.

Funny thing is, that the biggest improvements in sound quality come with those discs which sound already fantastic. The DAC can't repair what's gone wrong in the production, recording or the used quality of equipment with mediocre sounding discs. I'll get an improvement, but not to the degree with already great sounding discs.

The DAC transports music and gets me simply magical bliss. And for the moment I'm absolutely sure that it hasn't shown its full potential, as there are some parts like my CD-Drive and the AES/EBU cable that are not on par with the quality of the DAC.

The DAC with the new Firewall 640x modules is simply awesome!

Now, I'm up to further listening again...

Thanks so much. Have a nice Sunday and best wishes from Dortmund.

Jörg

Date Added: 01/04/2021 by Joerg Meinhardt, Germany

Review LessLoss Echo's End Reference and Reference Supreme Edition

2020 was a crazy year with a lot of global uncertainty and confusion. I escaped often into the audiophile world and upgraded almost all devices and cables and tweaks.

This review is focussed on the upgrades onto the Echo's End Reference (EEREF) and afterwards onto Echo's End Reference Supreme Edition (EESUP).

For people with no time for the rest, both get highly recommended in their price range ... whole heartedly!!

Keep on reading, to hear how and why ...

In February my first Echo's End, the Original (EEORG) found its place in my system. Please refer to my review on March 9th. I was totally excited about this device and gave it a "highly recommended".

I was totally happy with this DAC, because I didn't know any better in my previous price range. Upcoming special budgets got me into curiosity about maybe spending some on further improvements. So I investigated on the EEREF, although I really thought it is too expensive, almost 4 times the EEORG. How should it ever be worth so much.

The Echo's End Reference (EEREF) story

But my curiosity, audiophile insanity, and a couple of reviews (check review on LessLoss page 05/14/2018 by Jörg

Stanislawski) and some discussion with Louis got me on the track and I told him, I would buy next year after all the other planned system changes.

Surprise, Louis was just building 3 of them and could give me one just in a few days ... wow, how to withstand this :)

So it arrived at my place early November. Took me only a few minutes to unpack, replace, and listen, and decide. It's definitely a keeper. How do I now know, what I was experiencing at that time ... I have the bad(?) habit to inform Louis almost daily, how the new whatever from his is doing or rather how I was doing. All these emails keep me knowing :)

First impression was the physical weight. With same dimensions and almost same looks it was very unexpected ... almost dropped it ... not quite :) The extra sonic weight was even more exciting.

So, here some excerpts from my emails to Louis:

Same day:

Nov 2

"... And it sounds fantastic. Meet on the bones, precise positioning, deep space, best bass ever (deeper, stronger, more details), wonderful voices, some female maybe a little bit harsh, but they were before as well. Palpable, presence etc etc. And it will even get better??? Beats the little one in every aspect already. And yes, it does sound different, then I expected. Especially this power is great!!

Thanks for making this lovely (heavy) beast. Please congratulate your team as well."

Later same day:

"... I feel so stupid now, that I thought my stereo sounds great just a few days ago (still with the EEORG)... This is a totally different league!!! My second listening round was fantastic!! The projected room/stage is so much more believable. And the timbres, bells, cymbals, voices ..."

2 days later:

Nov 4

"Man, this is sooooo good after only 2.5 days continuous running. Remembering some songs in vinyl with my wonderful system from the 90sCould not get near with the resolution and natural voices and and and. It's really that good. And it would show this even without high resolution but rather normal CDs. The theory about CDs was probably right from the beginning, but the playing technology not.

Chapeau my friend ... This is by far my most expensive device and upgrade, but worth every penny. And it makes everything shine and more!!

OK, trust on Louis and his team and the Supreme!!!"

5 days after arrival:

Nov 7

Ordered Upgrade to EESUP ... after I was convinced about the value of the EEREF even for this high price. And Louis encouraged me, that I might even find the improvement bigger then EEORG to EEREF ... (which actually did happen later).

7 days after arrival:

Nov 9

"I had a wonderful experience this morning with the EE reference. Suddenly my stereo system was gone, just music around me. Wonderful natural organic sounds, full and rich natural timbres, harshness way down (I have to word it like this, not because I am aware of any remaining harshness, but I am very sure, I will suddenly be aware of further down harshness with the supreme), calmness and more stress free listening now!

People often describe good stage with comparison to holographic. This is definitely NOT true with the reference, because for me, holographic reminds me of technology and abstraction, which the reference definitely does not do, but rather showing an extreme stage. Greatly integrated and strong and detailed bass!!! “

Nov 14

The planned upgrade of my streamer / server arrived earlier ... Now Innuos Statement! That tickled the DAC very nicely, wow, what an improvement!!

“... Anyway ... gorgeous performance. Finally the EE Reference gets to process good quality input. Soooooo natural!!! I'm happy and drinking a glass of Champaign for buying the right thing again. And Champaign helps with the sound as well :)”

Dec 9

The new loudspeakers arrive (Living Voice OBX-RW4). Wow, with this great input it gets from the DAC it can really shine. Much more stage and details ... even without burn-in. Another lucky purchase. Not a lot of time left for the EESUP to arrive, so play loud to burn-in faster :)

The Echo's Ende Reference Supreme Edition (EESUP) story

Dec 18

The EESUP arrives and after a few minutes it was clear, that this expensive upgrade was better than expected and had to stay!!

I was so impressed, that I had to call Louis. We usually email only. So no citations for the first impressions.

Dec 21

“Just switched back to the reference for 5 mins ... now way to go back there:)

It was a good idea to do this, because the speakers are still in the burn-in phase. But just the first minutes with the supreme gave me enough to make this decision anyways.

The supreme makes human voices so much more natural. My wife loves the easy understanding of lyrics. She really admitted, that all was better ... usually she denies ... Although I finally gave in and explained what I spent ... I think she was prepared to not freak out :)

What a wonderful device, and the exclusiveness for me to enjoy it!!

Cheers,

Jörg

PS: biggest differences

- Space enhanced to the front, the back and left / right and probably top and bottom, but I didn't focus on that
- Voices !!!!!
- Deeper bass and much more punch
- Spacey but authoritative stage arrangement easily deciphered not only with 3D, but also with the better identification of timbres
- Overall such ease and flow, so relaxing and exciting at the same time

And I think you are right, this is a bigger jump than original to reference ... congratulations

Happy happy happy !!!!”

Dec 22

“Cheers and thank you again and again and again for this wonderful DAC ... goosebumps on songs I used to skip because they were too boring ...”

Dec 24

"Typical thing to happen ... like right now:

I just want to listen to one piece to see, if the magic is still there ... and boom, it glued me to the couch as I already mentioned before. It's again more natural and engaging ... :):)

I love it!!!"

Summarizing the EESUP

The stage is very widespread in the room and beyond, and such a presence as never heard before. Precise positioning and separation combined with perfectly correct natural timbres makes it easy to follow even the most complex arrangements.

The flow and liquidity is fantastic and makes listening so relaxed.

All in all it produces a great engagement, as never felt before.

It's unbelievably believable :)

And as a perfectly prepared steak, it's perfectly blackened while superbly juicy ... kind of :)

The high prices will not allow the EESUP to be a wide spread item, and so my review might be the first.

It is a very exquisite item and I feel honoured to be able to use it in my home.

Besides the value measured by the sound, there is loads of work to make one, so I do not regret in any way having spent this money (30% of the entire system)!!

But keep in mind, the Reference and the Original are really capable of giving you joy and are totally worth their money. So there are LessLoss alternatives to the "insane" investment for the Supreme ...

Thanks to Louis and the LessLoss team

Date Added: 09/07/2020 by Joerg Meinhardt

This is a review about my upgrade from 5 to 10 Blackbodies v.2 ("BB").

Please check my previous review from August 16 about my first set of 5 BBs.

Of course, I had my doubts about this upgrade, but Louis knows me pretty well by now and offered ample insurance. And, yes, it is worth every penny. I received them almost 2 weeks ago and feel ready now to offer my descriptions.

BBs do need some time to come to full performance. This might partially be caused by the ground cables burning in, but most of it must be the full adaption of the EMF in the room, which seems to take quite some time (sorry, just a guess after playing with many former radiation tweaks). The first hour was not yet enjoyable, incoherent, no solid groundwork for the sounds, although generally bass was there. By the end of the day, a clear improvement was there, especially with the timbres of instruments and voices. Richer and fuller. But the 3-D space was quite flat, which changed strongly during day 2 and 3. And then a huge punch suddenly was available from my system. Lots more air moving. And even this morning, I was shocked how well it sounded compared to my last sessions.

Most of the last improvements were more stable stage objects. And yes, most sounds seem to become objects with bodies. Very palpable with "grounding". It feels very natural and believable. Out of nothing, there is suddenly an entire human body and sings. Better close your eyes.

And for the first time, I can really claim that the loudspeakers and the entire system disappeared... again close the eyes, and crank it up. It doesn't happen at lower volumes. But as Louis described his sessions with the BB, you simply catch yourself at way higher volumes, just because everything sounds undistorted at these volume levels,

which was not possible before. I can confirm this!!! And this factor lets you discover details that you would not at lower volumes. And about confirmation: I actually checked whether the purported orientation was just a hoax... (sorry, Louis) ...but after a night of pointing the BBs into other directions than those specified, it all fell apart. Harsher voices, though rich, and very flat 3-D.

Back to the review... all these extra details come with no stress at all. Cannot find any disturbance of my body, just the opposite. Can hardly leave my sweet spot... totally addicted to what I hear and feel. And this was not nearly as much with "only" the first 5 BBs.

So, bottom line, more "oomph" and more meat on the bone, more believable and stress free, and addictive. And as budget allows, I will order more of these wonders. Btw: THC will not give you a cheap alternative, even if legal where you live :)

In my previous review of BBs, I mentioned another product which costs about double that of a set of 5 BBs. So now with 10 units I am at the same price, and I fully stand by my decision. This is so much more believable and natural. This other product's manufacturer claims not to put more radiation into the room, but they alter it in such a way that my body was aching. And with the BBs, I feel even better with more :)

So my final recommendation: get more, if you can!

And talking about addiction... My most played (daily) records that easily reveal all these differences:

Nine Horses (David Sylvian): "Snow Borne Sorrow" and "Money For All". Not for everyone's taste, a mixture of Pop, Indie, Experimental, Ambient, and Jazz (mostly a little melancholic), with rich instrumentation from acoustic to electric and electronic, and the mesmerising voice of David Sylvian.

Only CD resolution, downloaded from Qobuz. CD is great with the LessLoss Echo's End DAC !!!

Thanks again to Louis and his team. This is an enormous jump!!!

Date Added: 06/16/2020 by Frédéric Chaplain

For many years I have been a fan of the Aqua R2R DAC. I admit to being skeptical about the seemingly unending plethora of new DACs that keep coming out, and they all seem to sound pretty much the same, often with unnatural sounds and a kind of synthetic depiction of the midrange of voices. This, despite the artillery of ultra modern technologies constantly being developed, such as upsampling algorithms, the latest chips, etc.

Is this related to our modern era's performance, focussed on robotics? Emotions put on ice, everything preserved in appearance while serving true music can only be done with respect to a beating heart (ah! Poetry in this world of brutes!).

The Echo's End arrives and replaces an Aqua La Voce S3. Upon first listen, I hear silence like I've never heard. The object is surprising in its compact wooden format: technology mates with natural materials beautiful to the eye. I start with an album of Olafur Arnalds - Islands Songs. It begins with the voice of an Icelandic who comes to look for us deep in our roots.

It is intimate, close, as if the DAC was an exhaler of emotion. We feel that the voice speaks directly to our heart.

The low-medium / low register is full, coherent, and the mids are slightly accentuated, just where it gives one goosebumps, and the highs are silky and deliciously sweet. One appreciates the quintessence of timbres, superb spatialization and layering of layers. We feel that the Firewall filtering is there to serve music. It serves naturalness and not artificial performance. Listening to music, I am captivated by this sound that grips me entirely, that permeates me. It's organic, robust, but not overly opulent like an overtly obvious sound signature. The tonal balance is sublime. It is really a DAC for music lovers, for those who are gourmets of beautiful music.

It's been a long time since I heard such an original DAC in its cosmetic and sonic presentation. Louis Motek, the designer, was able to create a unique rendering, personal in the service of music, an enchanting DAC in the middle of this boring litany of new DACs. Of course, no DAC is perfect, no DAC can claim to please everyone. This DAC is special. It is for the music lover captivated by the adventures of listening, those who need the equipment to serve

only the musical communicative dimension instead of the technical novelties of the day...

For me it is a happy discovery. I feel the benevolence, the know-how and the creativity of an inspired designer. Original but not extravagant, just a concentrate of talent and beauty. Magic d'or 2020!

Frédéric Chaplain
Magic Mastering
Clisson, France

<https://www.magic-mastering.com/shop/fr/lessloss/2026-lessloss-echos-end-dac.html>

Date Added: 03/09/2020 by Joerg Meinhardt

Inspired by the review from Hifi Knights with comparison of the Echo's End Original DAC (EE) to highest level Lampizator "Pacific" DAC, with all the previous experiences with LessLoss products, I quickly decided, that I had to have an EE. Well maybe being bored or nervous about the delay of the new C-MARC Entropic power cables :)

My DAC was a Lampizator "Baltic" at just 20% of the price of the Pacific, that Hifi Knights used. So almost identical price as the EE. So the EE should shine even more against the "small" Baltic (well, the body is rather large). Please consider, that this Baltic already had a great and pretty natural performance!!

The EE came in a sturdy flight case, so no worries about shipment damage. It looks nice and smelled very nice too.

Plugged it in, listened for a few minutes. Unplugged the Lampizator right away and never plugged it in again .. except for when the buyer wanted to see it ... via WhatsApp, what a smart move :)

After now 400 hrs playing time (most of it at volume 0, of course) the rollercoaster burn-in seems to have come to a stable performance. Louis proposed to wait with final judgement at least 2 weeks, because it would still open up ... and it surely did!!

The stage now goes way beyond the front and side walls with great separation of individual sound sources. So much more ambient information can be heard against the quiet background. Overall the space seems to leave my room, which brings up a more "I am there" feeling, than "They are here". The big benefit ... you do not have to kick the musicians out after their performance ... just leave the event :)

Shape of space and environment change with the recordings, so I am not so stuck in my always same hifi corner.

Every sound now seems to have sort of a floating body. So many more details I never discovered before and all sounds belonging there. Such lowered distortion and clear voices without sounding anything flat or plasticky, but rather sweet and natural and separate very nicely from the rest ... wonderful!! Sibilance, my enemy, better controlled and natural, than ever before.

Instruments timbres and textures are very natural ... strongly improved. This fact, and the felt higher resolution reveal a lot of previously unnoticed instruments in complex arrangements.

Transients are not as distorted and give more room for enjoying the colours of the materials' sounds until the decay. It gives me an overall happier and less fatiguing feeling without distorted slaps into the face.

As a normal change with LessLoss products, the bass is stronger but controlled with rich textures, the best I ever had.

And beyond official specs it plays up to DXD = 24 bit / 352.8 khz. Try it, you'll like it!!

Highly recommended!!!

And thanks so much to Louis, Vil and the rest of the LessLoss team for making my listening happier than ever before!!

.... can't wait for the C-MARC entropic power cables ...

Date Added: 01/06/2020 by Arthur Ross

I would like to tell all of your potential future owners and/or current owners of any and all LessLoss products, past or current, that because I have a coterie of close friends and former associates who are always anxious to buy (for the past several years, only LessLoss offerings) from one owner (me) of LessLoss products, I have been in the process of upgrading. Because of that fortunate position I have been an owner of virtually every power cable, USB cable, USB keys, interconnect, Firewall 1x through 64x, analog hardware from the Echo's End Original to the Reference and now to the Reference Supreme twin-chassis unit.

These statements are not driven by an ego trip or braggadocio. It is just a statement of fact based upon my personal experience as an audio hobbyist which began decades ago by building much of my original equipment. Over those many years my systems grew enormously with much legendary equipment to my current system which is solely sourced from audio streaming to digital output DAC, and amp listening via headphones only.

As one might expect over my many years of experience in this hobby, at every upgrade, I experienced the hope for improvement. Something I did not anticipate nor expect since beginning to incorporate LessLoss products into my system was the extent, the level of the immediate and future improvement that resulted. Such was beyond any prior experience with non LessLoss equipment.

In my communications over recent years with other owners of LessLoss products I have come to find that my experience was not unique. We have all noted that the improvement actually realized, frequently "out of the box," far exceeded the results experienced with products from other manufacturers.

In every case when an upgrade was suggested, the resulting revelatory experience was always immediate, and improved even more over time... And always exceeded what was expected. Candidly, LessLoss is a breath of fresh air in this industry of "grandiose promises resulting in nano-delivery."

Date Added: 11/03/2019 by Greg Britton

I simply wanted to convey a heartfelt thank you!

Your suggestion that we might benefit from upgrading our EchoEnd DAC was spot on.

My family and I listen to and play music as an integral part of our lives. My original order for the DAC in 2016 was to have a DAC for my office system, but when I hooked it into our main listening system, it stayed, such was the vast musical improvement over our SimAudio Moon 750 DAC transport. The Moon was the best DAC that I was able to try out at home and own over the many years, so that was saying something. I never heard a better DAC at any audio shop that I would visit so my assumption was that the original EchoEnd was best. With faith in your products having a positive musical impact, I took the leap to send our DAC back for the upgrade and wait those few weeks without a DAC on our main system. The upgraded DAC arrived at the end of September and once I hooked it back in, with no other modifications at all, simply hooked it up, and it has been incredible. Our music sounds like it has been remastered by the best studios. Just simply wow, and amazing, and also most especially thank you!

Best Regards,
Greg Britton

Date Added: 08/27/2019 by Arthur Ross, Westport, CT

TO MY MIND, USING THE ART WORLD AS AN EXAMPLE, LESSLOSS TO THE AUDIO CABLE BUSINESS IS AKIN TO COMPARING THE WORLD OF MONET, DA VINCI AND VAN GOGH TO COMIC BOOK ART.

Date Added: 04/03/2019 by Darel Dillingham in Chesterton, Indiana

I got my Echo's End Original Saturday and played CDs ALL DAY Sunday and I'm in total awe of how much better it sounds than my \$5000.00 Berkeley Audio DAC.

Louis, your DAC is totally amazing and I'm finally at a point where my digital is extremely enjoyable to listen to. You never cease to amaze me with the quality of your products and how much better your technology is than most of the other high end offerings.

Thanks for your genius and time.

Date Added: 05/14/2018 by Jörg Stanislowski

When the Echo's End DAC was introduced, I pre-ordered it and lived happy with the improvement and quality that it made instead of the DAC that I used before. I liked the understated look and ease of operation.

The Reference was introduced and I took the opportunity and pre-ordered it with the trading in of the Echo's End original DAC. I thought to myself, what am I doing here, purchasing a DAC that is now the most expensive part of my system, am I insane?

Yesterday I unpacked the box. The DAC has the same size as the Echo's End original, it made me wonder how all the parts can fit in this small box. And the Reference is heavy! With the Panzerholz case it is maybe four times the weight of the Echo's End original, my impression when I changed the DACs.

I listened to six tracks from different CDs with the Echo's End and replayed them in the same order with the Reference DAC without warming up or, hmm... run in for several hours.

Normally I don't like to mention different CDs or files of music in my findings, as the reader may have never heard of some titles, and I'm not the one who's listening to „Audiophile“ tracks by Diana Krall, Norah Jones and the likes that are maybe well known to a wider audience. I got to move away then, sorry. But to do this DAC justice, I will note the titles of some tracks of CDs and try to point out short the differences.

First one that I tried was Sting - The Snow It melts The Soonest from "If On A Winters Night..." His voice came through with much more ease, the voice clearer than before with a wonderful natural tone.

John Zorn - Novato from „Alhambra Love Songs“ - Jazz. The piano on this track is so much more accentuated, bigger and unbelievable lifelike. It sounded not as a reproduction of sound, I got the feeling as if the piano is played in the listening room.

The Comsat Angels - Now I Know from „After The Rain“ - Indie Rock. I never hear this track that good. The CD outperformed the same track of the 7" record or from the vinyl LP. The sound was much more detached from the speakers, the overall appearance is much more worked out with lots more details.

Mirel Wagner - To The Bone from S/T - Singer/Songwriter. Only guitar and voice. The subtle, fragile voice and the guitar come through in such a realistic way, it is as if she is sitting in front of me, playing live only one meter away.

Bohren & Der Club Of Gore - Darkstalker from „Sunset Mission“ - Doom Jazz. A track that's nice, dark and frightening all together with these deep vibrant bass in the background. The bass is filling the whole room, you can drown in it. I never had a feeling like this before when listening to this track.

Joseph Martin Kraus - Allegro Assai, Symphony in C-minor from „Four Symphonies“ Concerto Köln - Classical. What stands out here is the overall improvement in dynamics and clarity.

Martini Brös. - Electric Monk from „Play“ - Electronica. I liked only two tracks on this CD and it sounded excellent in the past. With the Reference DAC I notice now razor-sharp synth tones are and the voice filling the complete room. A big improvement.

Tiamat - Dust Is Our Fare from „Skeleton Skeletron“ - Metal. Before changing the DAC the music was somehow tacked between the speakers and were stuck to it. It sounded sort of flat. But that changed completely. Again, the sound uncoupled from the speakers, filling the room. I never thought that it could get that good.

Dub Spencer & Trance Hill - 103rd Street Boys - from "William S. Burroughs in Dub" - Dub Reggae. A favourite of mine for a longer time. This recording sounds simply excellent. With the Reference DAC the music shifts to a whole new level, gobsmacked by a mass of new details to discover. Same as before here, room filling sound, wow!

Paul Leonard-Morgan - She's A Pass + Mega City One - O.S.T from „Dredd“. I liked this O.S.T a lot with the title theme that is repeated in different forms here. But I never really connected to the music. With the Reference DAC it blew me away! The deep bass that sounds like a tone from a vinyl test record bolted me to the sofa. The whole sound is thrown at me. Totally fascinating.

Front 242 - Headhunter from „Front by Front“ E.B.M. Here the CD sounded never as good as the 12" 45rpm with the same title. And now? The CD outperformed the record.

So now I mentioned also a few tracks that I heard today, not yesterday. The DAC ran silently the whole night for eight hours until I listened further. It improved again.

I don't believe that the Reference DAC could show its complete potential in my rig, because of some possible limitations with the rest of my gear.

But I feel lucky with the really great improvement. You may have read the somehow cryptical review at Six Moons. It was criticized that the Reference DAC comes without footers. I don't have a problem with that. Mostly everyone purchasing Audio gear has his own preferred foot or spikes to use. I find it positive that there are no feet attached that are maybe in the way when the customer wants to use his own ones. It is also looking funny, when the item sits on three or four footers/spikes and the other ones that came solidly installed are hanging uselessly in the air.

If I understand this right, the writer marginalized the differences in reproduction of modern DACs and that he gets somehow bored. With all those gear running through your hands all the time, maybe it gets frustrating with time? How could I know, I don't have other DACs in my home within this price class or above to compare the Reference with, but to the Echo's End this new DAC makes a gigantic performance shift.

If we say that Vinyl replay is on the black side and digital on the white, the Reference DAC moved completely to the black side. Yes, it really sounds analog in the best way possible and beyond, please give it a listen. It's an amazing DAC!

Thanks so much, I'm now one happy owner. I haven't thought that such a difference is possible.

Excellent job, LessLoss, you've done it again.

Date Added: 01/06/2018 by E.T.

Back in the day when CDs were more affordable I enjoyed the audio improvement compared to cassette tapes. Then MP3s - and later other modern compressed formats - came into vogue, but then I unconsciously stopped listening to digital music without knowing why. I finally realized that the digital music was not satisfying to the human psyche. About three years ago I decided to replace my home stereo, but wanted to avoid the harsh, cold-clinical, entry level solid-state receiver that I had before and hurt my ears. Much of the music to which I listen, is digital, mostly CDs at home and downloaded music files while traveling. Last year I replaced my stereo's DACs with the LessLoss' Echo's End. My previous external DACs were definitely an improvement over the inexpensive built-in DACs of a CD player, car stereo, pc, and portable devices, however, there was still much room for improvement. The Echo's End has that necessary something that was missing, that breathed life back into the rendering of digital music. My older DACs rendered digital music more clearly, but the music was quite plain and uninteresting, even after upgrading my CD transport. Now, I often stay awake way past my bedtime wanting to listen to digital music through my Echo's End for just a few minutes longer, like my nephews asking their parents for five more minutes before having to go to sleep. Now, I prefer to listen to digital music only using my Echo's End and have relegated other digital audio devices to mundane tasks that do not involve music.

I am thankful that the Echo's End has a sturdy carrying case, so that I can take my Echo's End with me when I travel. Was the inclusion of the sturdy case for the Echo's end part of LessLoss' plan not only to protect the Echo's End during shipment, but also to enable people to take their Echo's End with them when they travel between home and work, or relative's house? Brilliant plan LessLoss!

Date Added: 10/02/2017 by Art Ross

[Echo's End DAC, maxed out with 45 onboard Firewall modules.]

IN THE MIDST OF UPGRADING TO LESSLOSS DFPC CABLES, THE 5X FIREWALLS, THE USB FIREWALL KEYS, I RECEIVED NOTICE OF A NEW PRODUCT FROM LESSLOSS. IT WAS A LADDER DAC: ECHO'S END. WITH THEIR RECORD OF SUCCESS WITH ME, AND THE 30-DAY RIGHT OF RETURN, I HAD TO "GIVE IT A SHOT."

I HAVE HAD SOME MARVELOUS DACS IN MY SYSTEM IN RECENT YEARS. IN RETROSPECT, HAVING EXPERIENCED THE ECHO'S END, I CAN HONESTLY SAY THAT ALTHOUGH THEIR SOUND WAS VERY CONVINCING, THERE WAS A NATURALNESS, A YOU ARE REALLY THERE OPENNESS QUALITY TO THE ECHO'S END THAT NONE OF THE OTHERS OFFERED. OF COURSE I WOULDN'T HAVE KNOWN THIS IF I HADN'T EXPERIENCED THE ECHO'S END. IT IS NOT THAT THIS DAC WILL HIT YOU ON YOUR HEAD. IT IS MORE SUBTLE THAN THAT. IT IS MORE LIKE BEING IN THE LOBBY OF THE HALL WHERE THE ORCHESTRA IS PERFORMING, AND YOU OPEN THE DOOR AND ENTER THE AUDITORIUM. YOU ARE SUDDENLY ENVELOPED BY THE SOUND OF THE PERFORMANCE. TRULY, IT IS THAT CONVINCING. I AM CERTAIN WE ALL HAVE EXPERIENCED THIS LAST EXAMPLE SO I BELIEVE YOU CAN UNDERSTAND THE DIFFICULTY IN FINDING THE RIGHT WORDS TO DESCRIBE THE EXPERIENCE. THAT IS MY TAKE ON THE ECHO'S END. IT IS EASILY BECOMING A GOOD FRIEND!

Date Added: 10/13/2016 by Andrew Dove

Happy Birthday!

With my 50th birthday present from my kind wife Jane arriving in early August, but my birthday not being until 26th September, I waited patiently and did not even sneak a peak at the Echo's End.

The new DAC replaces a Musical Fidelity Tri Vista which has served me well over the years. The source starts with Tidal through an iPhone 6, Wadia 170i with Audiocom level 3 mods and a Teddy Pardo power supply.

I am well aware from owning LessLoss power cords that the sound benefits substantially from a long burn in. However, I had waited long enough.

On first connecting the Echo's End, I could immediately hear greater breadth, detail, separation and rhythm although with an evident harshness to the sound. Within an hour of listening the harshness had largely disappeared. With a further week of 24/7 burn in the sound can only be described as being incredibly musical. Particular highlights for me have been the dramatic reduction in sibilance, the musicality at every level and the way in which it draws listeners in. Everything becomes more distinct. Instruments and voices are separated from each other. The layers in the music are unravelled.

Also worthy of mention is that the wood case is aesthetically very pleasing. I now have a box of electronics to visually match my Sonus Faber Electa Amator speakers. Finally, it may come as a surprise to some, but lower quality source material such as BBC iplayer radio is now pleasing to listen to. OK, I am not getting the full experience described above with the iplayer, but the Echo's End makes a huge difference in quality, removing most of the harshness.

The bottom line is that there has been a steep change in our musical enjoyment since the Echo's End arrived. Jane even called me at work one day to ask me how to turn the HiFi on!

Thank you Jane and thank you Louis.

Date Added: 09/13/2016 by Arthur Ross, Orlando Evans, Bob Grossman, Ken Sternberg, Bill Melillo

We visited several audiophiles in the Philadelphia and New England area. Here they are expressing their impressions using LessLoss products.

Date Added: 09/08/2016 by Victor Sierra, The Philippines

Echo's End. It started when I was in need for a Dac to be used for our audio show here in p.i as most my Dacs are custom made. But I have others like Audio Note Dac and a highly modified Thor Dac. These Dacs are better when A/B with current Accuphase Dac. I stumbled upon LessLoss and upon talking to Louis this Dac seemed to make sense. So I closed my eyes and took the leap. Arrived perfectly packed and with a bulletproof case. I was worried that I'd be dissatisfied as with most Dacs I've tried. Especially a non tube Dac. Well, when I switched to the Echo's End fresh (no burn-in at all), I knew this was special. Just had a naturalness and right tone that most I've heard couldn't get right. I'm not good with words but all I can say is that it sounds real, organic and relaxed. I have the Ale compression drivers on leleach horns which are 110dB and these horns are very unforgiving with mechanical sounding Dacs. You must have top of the line front end. The Echo's just threw music after music with believability I haven't heard from most Dacs on the market.

Till now I haven't had the itch to take it out of my system.

Just good stuff!

Best,

Victor Sierra

Date Added: 08/13/2016 by Arthur Ross

When that "Little Wooden Jewel" arrived it immediately went into burn-in, 24/7. Finally, after some 3 weeks my good friend, also a hi fi connoisseur with a self-taught electronics background, came over for the unveiling. The amp was already powered-up, a piece of jazz was selected, I pressed the start button, and there flowed forth an absolutely breathtaking 10 seconds of heaven! We both inhaled deeply at the same instant as if startled.

Let me see if I can communicate this better. Let's say that you are attending a full orchestral concert. You have ideal seating. Before the concert begins, you get up to answer nature's call. Upon returning, the concert has begun. As you enter the auditorium you are immediately enveloped in the full alive acoustical environment. This instant immersion is not something one generally experiences with an audio system. That is the precise experience my friend and I experienced. We experienced absolutely no impediment or restriction to the flow of the music. In my imagination I visualized the flow of music coming down the wires totally free of any impediment. There was a sense of openness, clarity, cohesiveness of the entire assemblage of the musicians. The dynamics seemed unlimited.

As we continued our initial listening session with different kinds of music we were continually impressed with the naturalness of the sound with no limitation on our sense of space or volume. I feel that the speed of reproduction of musical attacks where speed is a component of the realness of the live presentation, our intuition accepts this as live. Add to that the absolute "blackness" of the surrounding space, the performance is almost three dimensional. It is amazing how the naturalness of the presentation engenders a relaxed state of mind in the listener.

The balance of the musical spectrum presented is remarkably natural. Nothing beyond the music commands your attention. Focusing on the music as a means of communication, the ease and naturalness of the performance can move you in ways you may not have experienced before.

Listening to voice is an interesting experience. We all have experienced sibilants which we automatically find annoying. However, with the Echo's End, sibilants that were in the recording came through so naturally that it rarely distracted the listener. This is not to say that the Echo's End presents the playback as soft or sweet or unbalanced. On the contrary, its presentation is as fast and accurate, and dynamic as "live." The presentation of the voice clearly involves all parts of the singer's anatomy that is involved in creating the sound. So convincing is it that frequently listeners sense the performer may be looking their way and immediately shy smiles breakout across their face.

I guess I have to mention the extended range of the musical spectrum. Deep and driving bass was crisp, sharp, and dynamic and clearly presented without any sense of "mushiness." If the music, and conductor calls for it, it can blow you out of your chair. The extended upper register comes across as smooth and liquid as one could want. What is so wonderful about the range of Echo's End's presentation is how balanced it is as the music flows across it's entire spectrum. There will be no "screwing-up the face" in anticipation of unpleasant hard high register attacks.

The piano notes struck appeared with an amazing speed and power. One could not ignore the obvious speed and expanded dynamics of each chorus of instruments and each note or string of notes struck on the piano. The subtlety of the percussion from the rear of the stage though playing at the same time as the other instruments had no difficulty making itself heard in surprising detail. Here is an interesting observation: sibilants from male or female voices on all prior DACs formerly in my system could be annoying.

But with the ECHO'S END in place, the sibilants were there, but natural, open and unfocused, and no longer annoying. Deep bass was crisp and driving without a trace of looseness or excessive rumble. Also, there was an amazing balance between the full upper audio range with the full lower range. No preference was evident in the middle range. Another accurate description of the sound is relaxing and so natural and non-tiring.

I believe you may want to know the kind of DAC this "Little Wooden Jewel" replaced. It was a Swiss made \$24,000 truly wonderful DAC that did not have the overall "magic" of the Echo's End. I have enjoyed it for the past 7 months. It will shortly be offered for sale.

I'm sorry this has taken too long to compose and likely too long to read. But my Echo's End awaits and I must return.

Arthur Ross
Westport, CT, USA

Date Added: 07/24/2016 by Joseph L G, Los Angeles

Today I unlatched the shipping case and had my first listen to the Echo's End. I linked it to my computer sound card with an AES/EBU connector and to my tube amplifier with balanced interconnects. Even without any break-in I was immediately impressed with the quality of the sound. It is a significant upgrade to my system.

I am using the Echo's End to convert Hauptwerk pipe organ digital samples in my computer to analogue signals for stereo system playback. I control the Hauptwerk program real time by MIDI from a digital pipe organ console. With the Echo's End the pipe organ reverb tails are smooth and fully developed, more accurate and precise than with my previous DAC. In my system the Echo's End is able to adeptly deal with complex combinations of pipes with clarity, weight and authority. Even when playing full chords and intricate passages with all stops engaged the sound is clean, articulate and controlled. With the Echo's End it is easier to distinguish wood pipes from metal pipes and discern their unique voicings. The entire frequency range of the organ is presented beautifully without any perceived bumps or dips or unnatural colorations. I am particularly impressed with the purity of the deep bass of the pedal notes. Not only are the fundamental tones well expressed, but also the associated harmonics and subtle nuances of moving air -- the things you feel as well as hear. Overall, compared to my previous DAC (which had a Stereophile "highest recommendation"), I find the sound of the Echo's End to be more realistic, more engaging, and tonally and spatially more revealing.

The Echo's End has exceeded my expectations. I could not be happier with the results. Thank you for developing and making available this product.

Joseph L G, Los Angeles

Date Added: 05/20/2016 by Tony-Oz

Echo's End DAC: Follow-up Impressions

With well over 300 hours of play, my Echo's End DAC should be close to full burn-in. Here are my humble impressions following my earlier report which I must stress are purely personal. I have deliberately chosen a range of recordings that range from audiophile-grade recordings to those with known deficiencies.

There was very little difference between the Response Audio Tube CD player and an Oppo BDP-95 Blue-Ray player as sources connected to a Response Audio 801A integrated Tube Amp (70W/Ch) using an Aural Harmony gold-alloy coaxial cable. The system uses LessLoss Signature power cables with Firewall Current Conditioners to every component.

The first thing that comes through is the "naturalness" and musicality of the sound, with little or no coloration, a dark silent background, excellent spatial delineation of voices and instruments with greater depth and height. There is no harshness with good recordings whilst older recordings known to be harsh or bright are given a new lease of life. This is indeed a major benefit as it has brought greater enjoyment to many old definitive recordings such as Klemperer's Beethoven Symphonies 3, 5 and 9, and Rossini's "Thieving Magpie" overture (the remastered audiophile CD by JVC from the original Decca recording) with Gamba and the LSO, is simply magnificent. Bach's Toccata & Fugue in G-Minor for organ (Peter Hurford/Decca) highlights the character of the bass, which is well rounded but solid and natural without any boominess. I can listen for hours with no listening fatigue.

The female voice is especially enhanced with greater clarity and a natural sibilance - this was quite obvious from certain tracks such as Eva Cassidy's "Over The Rainbow" where the brittleness at the top end when her voice reaches a crescendo now sounds controlled and natural. Diana Krall's voice comes across with even greater detail (try "The Girl In The Other Room" - tracks 3 & on 9, the controlled distortion of the electric guitar sounds "live"). Leontyne Price's "Oh Holy Night" is exhilarating and operatic recordings generally sound more stage-like with excellent spatial separation of voices from the orchestra.

Musical instruments sound much more dynamic and life-like especially the piano, violin, percussion and saxophone, yet remaining natural. Examples are Kyung Wha-Chung's Beethoven & Mendelssohn Violin concertos, Wilhelm Kempff's superlative Beethoven Piano Concerto No 5 (DG 1962 remastered) and Alfred Brendel's rendition of Schubert's "Wanderer Fantasie". Orchestral string music is lush and pleasing to the ear (try Rossini's String Sonatas (Decca). A favourite version of Pachelbel's Canon on a cheap Erato CD by Orchestre De Chambre/Paillard) has been transformed from a bright, harsh piece to a much more enjoyable experience.

However, I have noticed that the output, as judged by the audible volume of the music, appears to be reduced by about 15-20% in my system.

In summary, the Echo's End DAC has indeed transformed my modest audio system immeasurably, resulting in enhanced enjoyment of music and bringing new life to older recordings, which is what it's all about.

Top marks to you, Louis, for creating yet another great audio component. Love it.

Update: 09/12/2016 by Tony-Oz

Echo's End DAC Update & 5X Firewall Module.

The DAC is truly burned-in and has since been further enhanced with the addition of the 5X Firewall module to the integrated amp and a standard Firewall Module to the CD player used as a transport. All components are powered by LessLoss Signature power cables and the IC used is the Homage to Time. Since my last review, the sound volume output appears to have returned to original levels.

The addition of the 5X Firewall module has brought about an unexpectedly large boost in performance - much greater than using just the standard module - separation of instruments and voices is not only startling but the background is really dark. Music sounds fluid and natural while voices have slightly more clarity. Bass is more 'musical' and the high frequencies are relaxed and well-defined. The high registers of the piano sound like crystal - a great example is Liszt's "La Campanella" (Yundi Li _ A portrait). The virtual absence of listening fatigue is greatly appreciated. Some audiophile friends have been similarly impressed when these components were tested on one of their systems.

I have also had the experience of using the LessLoss USB firewall module which has lifted sound from USB sources to a new level.

I have found that upgrading a decent system with super components from LessLoss like power and IC cables, the DAC and firewall modules have brought about greater sonic improvement than rushing out to buy the latest models of system equipment every year or so?.

Thank you Louis for producing products that live up to their claims of excellence. As they say, the proof is in the pudding.

Date Added: 04/23/2016 by Jörg Stanislowski

The case for the Echo's End DAC is unbelievably sturdy and there will surely be not a single unit delivered damaged.

I placed the DAC on three Roller Block Jr., and it looks fine.

The look of the Echo's End DAC will not appeal to every possible customer looking for a new DAC. Well, I love it's look immensely. Stripped to the bones, a design of total understatement. No shiny display that shows sampling rates, input selector, the time and date or whatever. Just signal in, processing, signal out.

My Echo's End gets the input signal via AES/EBU from my CD Transport. Signal out via LessLoss RCA cable.

I listened to one or two CDs and then let it play silently for hours every day. Then it came to my attention that I didn't check the polarity of the power connection, how could I forget that? Damn. And it turned out I had to switch the polarity. My advice to every customer, check it right from the start, as it is important. After several hours of silent burn in, I started listening.

Every comment LessLoss posted about the sound is absolutely right. It seems that the enclosure of the Echo's End is equivalent to the sound it creates in my listening room. It is pure, natural, analog-like and wonderfully detailed.

As if it were made explicitly for music with acoustical instruments. Jazz Trios sound unbelievably realistic. You can also expect lots of details not heard before. But I can only compare it to the DAC that I used before, and that was not an ultra expensive megabuck item.

With the Echo's End the sound, room placement of instruments somehow shifted in dimensionality, this is difficult to describe. The instruments are perceived to be at slightly different places, especially in depth. So, the music seems to be reproduced like it was intended by the musicians, producers and recording artists.

Even when this dimensionality / room was created artificially in a sound recording studio for your listening pleasure. Instruments are wonderfully separated and at the same time the music can be sensed as a complete whole. This differentiates this DAC from other DACs, which have a more technical or, haha.. "digital" sound.

I'll compare this to an analog example. Way back when, I purchased a used double LP of Dave Brubeck's Time Out at a record fair. It was an RCA pressing, nothing special. At a later date I got the first audiophile remastered 180gr. pressing. The re-mastered version couldn't compare to the cheap RCA pressing. The audiophile one had this sort of ping pong stereo effect, a much better separation of instruments, but the music couldn't be recognized as whole.

I only wanted to mention one CD, the OST of „the house of flying daggers“. This is a recording that gives you a feeling at first listen, that it can't get any better than this. The third track really gets you drumming, like the Kodo drummer of Japan, you know what I mean. With the Echo's End, this track gets an unbelievable complete new quality. The drums sound so real, that you sit there in awe and simply can't believe it. The drummers are in your room, it feels as if you can smell the sweat pouring down their skin. Really absolutely outstanding.

Yet again, LessLoss has created a wonderful product.

Thank You.

Jörg Stanislawski

Date Added: 03/07/2016 by Tony-in-Oz

FIRST IMPRESSIONS.

After an impatient wait of 3 months, I have finally got the Echo's End DAC in my hands. I believe I'm one of the first to receive it.

Right out of the super space-age case the sound was compressed and heavy as would be expected but after only a few hours of play, it started to open up. Louis has indicated to me that it would take a good 3 to 4 weeks of continuous play for the DAC to be fully burnrd-in. Now, after only about 32 hours of play over a few days, I am

already impressed with the uncluttered, clean, balanced and natural sound with little hint of colouring or noise. What I find most impressive is the marked reduction of excessive sibilance from certain "bright" recordings, the relaxed yet natural character of the bass, deep and wide sound field with a dark silent background despite the early days. However, there is still a detectable but minor degree of "heaviness" and a little brittleness in the top end which, I am confident, will be resolved when fully burned-in. There is still a long way to go before the full potential is realised and I anticipate much more significant improvement in the weeks to come, like the other LessLoss products already in use in my system. Experience with products like the use of V-Caps in audio components suggests a full burn-in period of 400-600 hours is on the cards.

I was already very happy with my system before I had the LessLoss Firewall Modules and LessLoss DFPC Signature Power Cables installed on every component in both of my modest systems and was initially surprised how much they had contributed to the significant improvement to the sound. One of my audiophile friends was so impressed by them when we tested them on his system that he has since purchased them.

I'm no tech expert but fortunate to possess a musical background, having played the violin and piano, listening to classical music since early childhood and having enjoyed the fabulous concerts and operas during the many years living in London. This has helped in discerning between "true live natural sound" and "electronic sound". For me the ENJOYMENT and APPRECIATION of good music is the prime objective, not the hype of owning the most expensive audio equipment to brag about.

I could not be more impressed with the professional manner and prompt service in which Louis runs LessLoss - always ready to answer any queries in an honest manner without the air of aloof arrogance we sometimes encounter with some so-called "experts". Thank you Louis.