



SBOOSTER NODE POWER SUPPLY UPGRADE



POWER... In Silence ?

BY ANTHONY SIGNOROTTI

In 2008, **Wiebren Draaijer** received a **Squeezebox** streamer as a present. While he loved the convenience of streaming music, he didn't love the sound. The **Squeezebox** simply couldn't match the sound quality he was getting from his high-end *CD* player, and he wondered why. Given his background in electronics, he was uniquely positioned to find an answer. After some tinkering, he concluded that the best way to improve the sound of the **Squeezebox** was to improve its meager power supply. Two years later, **Wiebren** and **Karin Hoks** founded **Sbooster** and the **Sbooster** linear power supply was born.



Clean Power for the Bluesound NODE

We don't generally give a lot of thought to what powers our devices. If something is electronic, we understand that it needs to be plugged into a wall socket or have a battery to work, and as long as the device turns on when we plug it in, we're happy campers.

But I'll let you in on a little secret that high-end audio designers already know: the decidedly unsexy power supply may be the most important part of your favorite component.

In one of my conversations with **Rene Evans**, the Canadian distributor for **Sbooster**, he compared the difference in sound quality between a quality linear power supply and the tiny, built-to-a-price switch mode supply spec'd on many components to a truck trying to tow a boat up a hill. Can a smaller engine with less torque get the job done? Yes, but it's going to struggle, and the steeper and longer the hill, the more it's going to struggle. That steep, long hill in our truck example is like a particularly complex piece of music, with lots of dynamic swings and complex arrangements. The small, switch mode power supply simply cannot deliver

the torque needed to allow everything a recording has to come through during playback. So, a component's power supply really does matter, whether it's an amplifier, a DAC and yes, even a streamer. Take for example, the **Bluesound NODE**. Well-made, compact, with a killer app and at a price mortals can afford, the **NODE** continues to be one of the world's most popular music streamers. For less than 600 bucks, the **NODE** allows music lovers and audiophiles to get into quality hi-res music streaming without breaking the bank. Are there other streamers on the market that sound better? Definitely! But they cost significantly more, sometimes as much as 4 to 5 times more.

A few months ago, I reviewed **Bluesound's** special edition **NODE X** for **TED Magazine** and loved it. It took the standard **NODE N130** (the **NODE N130** being the 3rd generation of the **NODE**) and improved it in nearly every way, especially when using its upgraded **ESS DAC** and **THX** headphone amplifier. However, in my set-up, I typically only use the **NODE's** streamer, preferring to listen using my own **DAC** and headphone amp from **Schiit Audio**. Since the streamer tech was the same in both the **NODE N130** and the **NODE X**, I ended up staying with my **NODE**

N130. But listening to the **NODE X** convinced me that my **NODE N130** had more in the tank.

While exploring last year's **Toronto Audio Fest** with fellow **TED** contributor, **George DeSa**, we got to talking with **Audio Sensibility** founder **Steven Huang** and he pointed out that he was now carrying **Sbooster's** linear power supply upgrade for the **Bluesound NODE**. I was vaguely aware that other power supply upgrades existed, and I was intrigued, so **Steven** suggested we chat with **Rene Evans**. We tracked **Rene** down in one of the larger lower-level rooms he was sharing with **Don Corby**, and boy am I glad we did.

I'd never spoken with **Rene** before, but his reputation as manufacturer of his well-regarded **Saturn Audio** components preceded him. In an industry filled with really nice people, **Rene** may just be one of the nicest and most down to earth people I've had the pleasure of speaking with. He told us a bit about the **Sbooster NODE** upgrade, emphasizing how easy the upgrade was to complete (music to my non-DIY ears) and what a huge difference it made to the **NODE's** already excellent sound quality. I requested a review sample.

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When the first production models finally arrived in Canada, I was one of **Rene's** first calls. We talked a bit about how we'd like to approach the review. He offered to upgrade one of his own *NODE N130's* and ship both units over to me so that I could compare to my stock *NODE N130*, but because purchasers of the **Sbooster** *NODE* upgrade were going to complete the installation process themselves, I figured a true test of this product should be from that perspective. **Rene** readily agreed and a few days later, I received the extremely well packed **Sbooster** power supply, along with a stock version *NODE N130* so that could easily compare with my soon to be upgraded *NODE*.

Installation

A quick digression about me: I am not a technical person. I don't own a soldering iron and I've never *DIY'd* anything in my audio collection. The closest I get to *DIY* is adjusting the *DIP* switches on my phono preamplifier, a task I consider to be a notch below harrowing. Would this upgrade, which would require that I crack open my treasured *NODE N130*, rummage around inside and then rip out and replace some of its guts be an operation that would prove to overmatch my admittedly meager technical skills? Read on.

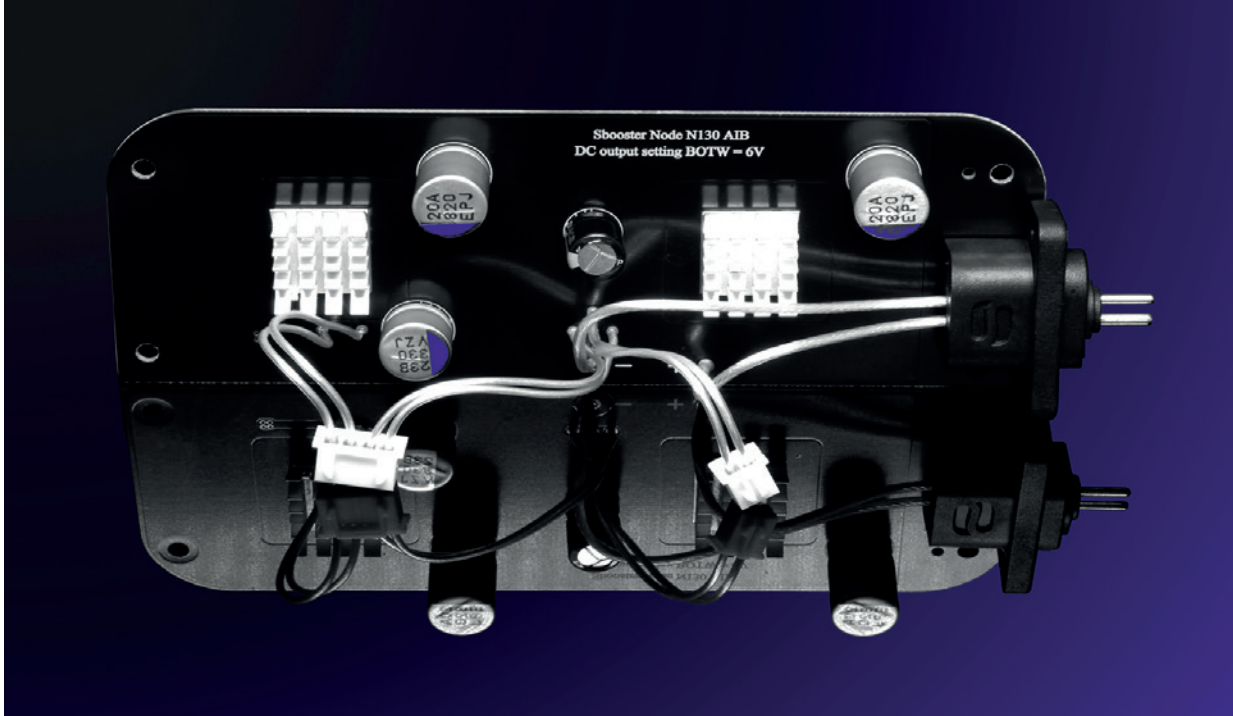
Spoiler alert: I needn't have fretted. As mentioned above, the **Sbooster** upgrade comes with two main pieces. First is the **Sbooster** *BOTW P&P ECO MKII 5-6V* power supply (\$519), which aside from its somewhat ungainly name, is a smallish black box (roughly 9 inches high, 5 inches wide and 3 inches high) that contains, among other things, a healthy sized toroidal transformer and several capacitors. I've seen wimpier power supplies on power amplifiers, so this was a good sign.

The other piece is something **Sbooster** calls an *AIB* or **Active Interface Board** (\$199.99), which replaces the stock power supply inside the *NODE* itself. It's worth noting here that this *AIB* was custom designed for the *NODE N130*. **Sbooster** confirmed that while the *AIB* also works on the *NODE X*, it is not backwards compatible with previous versions of the *NODE*.

In order to install this new board, one needs to remove the magnetic backer on the *NODE*, remove a few screws and open the unit. Aside from a totally normal yet heart-stopping crackling sound (don't worry, it's just some clips releasing, not breaking) that comes from opening the clamshell *NODE*, this is super easy, even for someone of my decidedly non-tech background. The removal of the *NODE's* stock internal power supply involves disconnecting two leads, removing a few screws, removing the stock power supply board, and popping the *AIB* in its place. Everything lined up and fit to perfection. If I'm honest, the trickiest part of the entire process was getting the clamshell properly aligned and closed up again. After a bit of finagling, I got the *NODE* reassembled, connected the nicely designed custom connector to the outboard power supply, attached the removable included power cord and my *NODE* was ready to (literally, as it turns out) rock and roll.

I should say that I was not left on my own here. Not only are the *step-by-step* instructions clearly written by someone which a solid command of the English language, but the accompanying pictures proved extremely helpful. To cap things off, **Sbooster** also included a link to a helpful how-to video, which I trepidatiously watched several times (see aforementioned pre-*DIY* fretting) before attempting the upgrade myself. All this to say: if you have a screwdriver and a pulse, you can install this yourself.





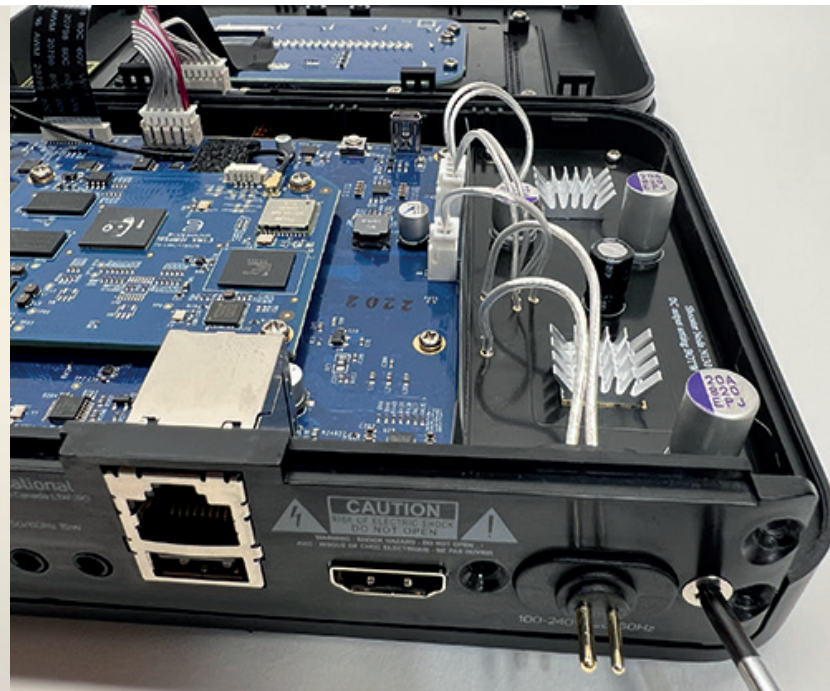
Set-Up

I think it's worth a moment to talk about how I set up the *NODEs* to work with my gear. Both upgraded and stock *NODEs* sat together on my equipment rack and were connected with identical sets of *RCA* cables into my **Schiit Audio Freya+** preamplifier. The output for both *NODEs* was set to fixed, so I didn't have to worry about level matching the two. Finally, in the *BluOS* app, I added both *NODEs* to a group, so that when I started, stopped, and paused tracks, it was one set of controls that applied to both units. Super easy! Now I could go back and forth between both stock and upgrade *NODEs* and control the volume using my *Freya+* remote. Score another win for the excellent *BluOS* app.

Listening Conditions

After waiting the recommended 100 hours for the **Sbooster** to break in, I started listening. But, switching back and forth between upgraded and stock *NODEs* while listening to a series of tracks initially left me feeling confused. Somehow, the **Sbooster** equipped *NODE* sounded quieter. I checked and rechecked my physical connections and volume settings in the *BluOS* app, even checking the decibel levels with an *iPhone* app. Everything was identical and the volumes were indeed the same. I asked my son, whose 13-year-old year ears are demonstrably more sensitive than mine (except when being reminded to do his chores, natch) and after listening for a few minutes, the first thing he noted was that switching back to

the stock *NODE* made things louder. Why louder? My working theory is that the **Sbooster** equipped *NODE* sounds slightly quieter because the enhanced power supply is calming everything down. We're not talking about a loss of dynamics or detail—it's all still there. Ever been cooking in a kitchen with the stove's exhaust fan on? Often, you don't actually realize it's on. Until you turn it off. Immediately you take a breath, relax your shoulders and that unrealized sense of tension vanishes. That was my overwhelming take away when listening via the **Sbooster**. It removed all that noise and distraction and artificial tension, which at once improves every single part of the listening experience.



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« On *Rocket*, **Billy Corgan's** and **James Iha's** guitars sang and shook, **Darcy Wretsky's** bass grooved, **Jimmy Chamberlain's** drum strikes thundered while **Billy's** voice was right there – as sharp and biting as ever. But instead of the artificial tension imposed on an already tense and driving recording, the **Sbooster** allowed all that transcendent power and emotion to shine through. »

The listening sessions themselves

Teddy Thompson's gorgeous cover of **Leonard Cohen's** *Tonight Will be Fine*, from the **Leonard Cohen** *I'm Your Man* motion picture soundtrack sounds great on both versions of the *NODE*, however, on the unmodified *N130*, **Teddy's** voice had more sibilance and felt somehow edgier and hotter than when listening through the **Sbooster** version. At the same time, the stage felt less expansive, the imaging a bit fuzzy. When I listened to the same recording on my upgraded *NODE*, the differences

became immediately and unforgettably obvious. **Teddy's** voice came forward slightly, sounding smoother and sweeter, while his guitar strums and plucks felt more full-bodied and sure. In fact, the entire performance became more energetic and self-assured. The size of the performance space itself also leapt into focus with the **Sbooster** equipped *NODE N130*, the player locations on the stage were more clearly drawn on a wider, deeper and more expansive soundstage. These same differences showed up again when I played **Agnes Obel's** hauntingly

beautiful *The Curse*, from *Aventine*.

Listening via the **Sbooster** equipped *NODE* allowed the music to flow with observable smoothness and clarity.

Agnes's voice is full bodied and warm, her bow work with the cello felt deeper, smoother and cleaner. On the unmodified *NODE*, **Agnes's** voice and her cello are noticeably thinner and more grating, sitting on a flatter, smaller, less precise soundstage.

Over and over again, this palpable reduction in tension came back to me. Whenever I switched to the stock *NODE N130*, I couldn't wait to go back to the **Sbooster** equipped version. I would feel an immediate sense of unease and tension with the old power supply. With the **Sbooster**, the music flowed with a sense of commanding power and ease. It's just clean, clear and calm – even when playing decided uncalm music.

As a rowdy teenager growing up in the 1990's I was huge fan of the **Smashing Pumpkins**. Now in sunset dotage of my mid-forties, I have a tough time with the hard rock of my youth. It was brash, loud, unrefined, and angry and it wasn't recorded particularly well. These days, I find myself gravitating towards the peace and tranquility of more refined recordings. But I wondered, could the **Sbooster** allow me to listen to the some of my most treasured music with a greater sense of calm? Would the quieter version of hard rock rob it of everything that made it amazing? There was only one way to find out. I cued up the **Pumpkins's** the unabashedly intense 1993 effort, *Siamese Dream*, took a deep breath and hit *Play*. What emerged from my stereo was jaw droppingly different from what I remembered. Gone was the edgy metallic taste, annoying sibilance and grain that defined previous listening of this record, even on good equipment. On *Rocket*, **Billy**



The following are emails between RSX's designer and the editor of Positive Feedback Online. They are unedited and unchanged except for format.

Hello David,

Corgan's and James Iha's guitars sang and shook, Darcy Wretsky's bass grooved, Jimmy Chamberlain's drum strikes thundered while Billy's voice was right there – as sharp and biting as ever. But instead of the artificial tension imposed on an already tense and driving recording, the **Sbooster** allowed all that transcendent power and emotion to shine through. Little details, riffs and effects I'd missed all these years revealed themselves and I was transported back to the 15-year-old me – rocking out to this incredible music of the early 1990's.

Conclusion

Suffice it say, the improvements the **Sbooster** brings to the *NODE N130* is far from subtle and at roughly \$700 Canadian, represents an astonishing value, easily elevating the already great **Bluesound NODE** from value component to potentially end-game status. If you're looking to upgrade your streamer to a whole new unit, consider improving your power supply and you might just discover that indeed there is more power in silence.

GENERAL INFORMATION

5-6V BOTW MKII Power Supply

Price: \$519.00 CAD
Warranty: 2 Years parts and labour.

**Bluesound Node N130
AIB Upgrade Module**

Price: \$199.00 CAD
Distributor: Saturn Audio Ltd.
(Cambridge, Ontario),
T.: 519.623.1212,
<http://saturnaudio.com>

Have you had a chance yet to listen to the new RSX Benchmark AC Power Cords I sent you? At just US\$200, they're the first RSX cables where the actual cable part can be machine-made instead of assembled from multiple component materials by hand. That saves us a lot of money in labor, and I've put all of it into better materials and higher performance. The terminations, of course, are still all done by hand, using our own special connectors. What do you think?



Roger

Hi Roger... Yes, I've had a chance to listen at some length to your new RSX Technologies Benchmark AC Power Cords. Since you sent two samples to me, I used them to supply our PS Audio PerfectWave SACD/CD Transport and our PS Audio DirectStream DAC stack. I run a lot of SACDs through there on a regular basis. The AC end was plugged into the very fine RSX Technologies Power8 Power Distributor, which in turn was fed with your Beyond AC Power Cable. Given that the prior power cables were very expensive reference-level products, and considering the very low price (for audiophileland!) of \$200.00 per cord, I was quite surprised that your Benchmark Power Cords did so well by comparison. They punched well above their price class, sounding more like AC power cables in the \$1,000.00 – \$2000.00 range than their actual (surprising) MSRP.

Right out of the box, it was clear that the Benchmarks were going to need some break-in. They sounded congested, bass-shy, and rolled off initially. 25-50 hours of break-in cured that first impression, however. They started to bloom about 10 hours in, and then really opened up by 50 hours...not bad at all for break-in.

Once shaken down, I got a clear picture of the Benchmark Power Cords. Dynamics were excellent. Transparency was good, which in turn led to solid performance in the areas of detail, imaging, and soundstaging. They also did a creditable job with harmonic structure...much better than I would have thought, frankly. I'd say that audiophiles on a limited budget for AC power cables should be digging in on the RSX Technologies Benchmark. At \$200.00 per, this is one of those rare no-brainers in high-end audio. Benchmark is a price-performance killer!

All the best,

Dr. David W. Robinson
Editor-in-Chief
Positive Feedback

