

# powerlieswithin

WORDS AND PHOTOGRAPHY BY RAFE ARNOTT

“Power tends to corrupt; absolute power regeneration corrupts absolutely.”

After living with the PS Audio Power Plant P10 for more than a year now, I can say it's a key piece of my reference system, that I don't do a review without it, and that it has absolutely corrupted me for anything else (*except the new DirectStream Power Plant 20, more on that later*).

Apologies to Lord John Dalberg-Acton whose phrase I co-opted.

I know there is a division in opinions on AC-power conditioning, filtering, and aftermarket power cables among audiophiles. This isn't news, and I'm sure there will be different camps for time in memoriam. I'm not here to belabour those divisions.

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PS AUDIO



REVIEW





If stock power cables work for you, and you've never been curious about upgrading your cables, or addressing the incoming AC power to your home, then I envy you in a way.

I say that because I was instantly curious about both after reading various reviews, and online forum discussions on the subject when I was first wading into this hobby several years ago.

This curiosity led me to start demoing power cables from a local hifi shop. I'd critically listen to a few tracks with the stock cables in place, then power down, swap in a new cable, and repeat the cycle.

Not only did I hear distinct changes to the sound I was getting out of my modest system at the time, I noticed they weren't always improvements.

From this experimentation I learned some important lessons: Most of the AC current our systems receive through wall sockets is unstable, and fluctuates constantly. Changing AC cables isn't necessarily a good thing if all it's doing is colouring your output.

Over time I found the cables that allowed me to hear deeper into the recording by lowering the noise floor, or helping to eliminate

RF-related grunge – without affecting tone, or timbre, or artificially goosing upper or lower registers – were adding to my enjoyment of what artists had committed to tape. A significant discovery for me. Through the ensuing years I continued with my personal, and professional research (as a reviewer) into power cables, power conditioning, and finally power regeneration as funds allowed.

It was through this experimentation I came to home audition the PS Audio Dectet AC Power Conditioner, and AC5 Power Cables. These impressed me enough with their ability to allow more of the recording to come through – without colouration – that I purchased them. Next came the PS Audio Power Port AC receptacle which reduced background hash further. I continued to experiment with numerous manufacturers AC cables, only now trying them first in the wall, and then through the Dectet, which proved to allow clearer insights into what each cable was contributing (or not) to the sonic signature of components.

Now, before this starts to sound like a PS Audio love-

**“Most of the AC current our systems receive through wall sockets is unstable...”**

**RAFE ARNOTT**

in, I'm explaining this to you so you'll understand that when I had the opportunity for a long-term review of the P10, it made sense for me to continue with PS Audio because I had a solid baseline to measure what – if any – improvements I was to encounter by adding the P10 into my system based on previous experience with their products already.

Experience listening with, and without the P10 has revealed that my incoming AC power is saturated with RF noise, contamination, and current fluctuations (using the P10's bright front LED control panel allows me to see exactly what's coming into my home from the grid – which appears to vacillate anywhere from 113~122 volts).

Due in no small part to the varying load demands being placed on the power grid at different times of day, and noise/interference from the crazy myriad of electrical devices that are connected to said grid – computers, refrigerators, televisions, radios, stoves, microwaves, hair dryers, washing machines, fluorescent lights – you get the picture – I've consistently noted

a haze/hash over the musical reproduction occurring in my sound system when I

do not have some sort of filtering in place.

Now, there are many different ways to approach what I think is a fundamental problem with modern AC coming into the bulk of urban homes: You can have an electrician install a dedicated 20, or 15-Amp line (or lines) into your home, you can get your own dedicated, audiophile-grade power pole installed to channel current into your home (both of which, while somewhat effective, are still channeling crappy power IMO). You can move to an area with no neighbours so you don't share the grid, you can go off-grid with solar power, or you can purchase a device that separates your delicate audio component circuitry completely from incoming power.

Given my current living situations, and finances, the latter was the most prudent choice.

So, what exactly does the PS Audio Power Plant P10 do? In a nutshell it generates a completely new, artefact-free stream of AC power from the incoming current that your home receives from transformers on the greater grid.

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How does it do this? It first converts that incoming stream to DC, then using “patented PS Audio technology regenerates and produces new sine-wave-perfect, regulated high-current AC power. In the process of regeneration any problems on your power line such as low voltage, distorted waveforms, sagging power and noise are eliminated.”

Sounds pretty trick.

The P10 isn't conditioning the power, limiting the current or dynamics like passive devices which are basically magnetic chokes doing their best to scrub high-frequency interference from the line. No, the P10 is creating a new power wave for your gear to ride. One without current eddies, without RF noise, without a sine wave degraded, and beaten out of all proportion by the demands being placed on it by hundreds of other electrical consumers before it even has a chance to reach your wall outlet.

It's a fresh start for your equipment to draw upon, because the reality – to my ears – is what you're really listening to when one is assessing a sound system is the incoming power: it makes or breaks the sonic efficacy which your components are truly capable of.

To that end, the P10 allowed every single piece of gear I added to it to reach deeper into the recorded event, with an improvement in dynamics, at both the micro, and macro levels.

The difference was sometimes subtle, sometimes eye opening. But the difference is always there, and it is my experience that it is not colouring the recording. It is removing a veil of noise which was previously masking not only details, but one of the most key attributes I seek out in playback: reproduction of the dimensionality of the recorded space.

Those four walls, and the air surrounding musi-

cians committing their art to tape, whether it's a live venue or a studio, that sense of aural space surrounding players is one of the most powerful indicators for me of whether or not playback will be able to transport me back to the moment of

the recorded event.

Take Nina Simone's 1958 soul-jazz album *Little Girl Blue*, in particular the track “Plain Gold Ring.” After a plaintive vocal introduction solo by Simone which sets the stage for the space of the recording, her piano

drops in hard followed a heartbeat later by Albert “Tootie” Heath's sticks smacking the rack toms. Playing this through the totaldac d-1 integral, and a Soullution 330 integrated amplifier plugged into a standard wall socket yields a historical sonic portrait of this, her only Bethlehem Records session, without focus on any particular slice of the frequency spectrum: a beautifully rendered, and musical balance is clearly achieved. Her voice coming across cool, collected, and the double bass of Jimmy Bond thrumming deep in the mix alongside Heath's metro-nomic percussion.

Swapping the d-1, and 330 into the P10, and queuing up the track again in Tidal Hi-Fi, the background blackens considerably.

There is more air around Simone's voice – which now possesses projection more from the chest rather than just her mouth – the bloom off her piano notes, and the decay off Heath's now more palpable drum skins conveys a more spatially-evocative landscape. Simone's playing jumps further forward on the sound stage, and Bond's bass notes seem to drop another octave, and become more clearly defined, and separated from Heath's stick work in the recording.

Bronski Beat dropped their debut album *The Age Of Consent* in the fall of 1984.

I remember it clearly because I was touched by the sad, poignant video of the first single released off it – “Smalltown Boy” – and because it featured the wailing falsetto of Jimmy Somerville over the hypnotic synth beats, staccato percussion, and goosebump keyboarding of band members Steve Bronski, and Larry Steinbachek.

Not only was the track a heartfelt political anthem on homophobia, it was a riotous dance number which always got the living-room floor packed when the 12-inch single got spun at house parties in my youth. The explosive force that Bronski's drum-

ming unleashes about 30 seconds into the track over Somerville's aching voice is like machine-gun fire with the speed of attack on every strike of the sticks standing clearly apart, never bleeding into one another, and rocking your head back.

Without the P10 in the mix, the big dynamic swings of the original Canadian pressing I own through the EMT JSD VM cartridge, Auditorium 23 step-up transformer, and the all-valve single-ended Soro integrated with built-in phono stage is big, bouncy, and organic with its rubber-band bass lines, slick synthesizer noodling, and polyphonic rhythms.

Plugging the amp into the Power Plant reveals a wealth of previously glazed-over electronic micro dynamics which had been concealed under a haze of noise floor. The black background helps free a number of keyboard textures from anonymity, and allows for further percussive heft to be physically felt in the lowest bass notes.

It's not night-and-day between the two, but in a system of reasonably revealing capabilities, which possesses a transparency to source, the gain in accuracy, and fidelity to the recorded event is welcomed, all the more so because it doesn't come at the expense of warmth.

Having had the P10 for some time, and having run a healthy number of integrated amps, power amps, preamps, CD players, streamers, DACs, phono stages and turntables through it, I can safely say I have a very clear set of indicators of what I know the unit delivers to the sonic landscape of my home.

So, when PS Audio recently asked me if I could compare the new DirectStream Power Plant 20 to my P10, and add that to my P10 review, I was curious, and agreed to hold my P10 review so I could add in thoughts on the P20.

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First off, the P20 is larger (96 pounds, 17x14x11 inches) than the already massive P10 (73 pounds, 17x14x8.5 inches), so make sure you run it either on the ground, or a very sturdy rack system or table. The P20 delivers 3,600VA peak output (compared to the P10's 1,500VA peak), can accommodate both 20, and 15-amp power cables, is equipped with 16 power receptacles (compared to 10 on the P10) in five zones – two zones of which are high-current – features an all-new FPGA-based DSD sine wave generator, and has three times lower impedance than any previous Power Plant.

The P20 features a new, larger, more detailed seven-inch LED screen (4.5-inches on the P10), and comes with the standard PS Audio remote control.

In direct-comparison tests between the P10, and P20 (power-down component, swap cable, power-up), with the kit I currently have on my racks (Solution 330 integrated amplifier, totaldac d-1 integral DAC/streamer, Audio Note CD 4.1x, Audio Note Soro Phono SE Signature – Thales TTT-Slim II doesn't count because it's battery-driven), the P20 brought out more of everything – in varying degrees depending on recordings – that the P10 was already revealing, with the biggest difference between the two being the sense of grunt behind the music that the P20 delivered over the P10.

The P10 opens up the bottom end on recordings, it allows the lowest notes to come through unimpeded, with authority, with power, and mostly with a real sense of solidity. The P20 does all of that, but with it's improved headroom, there is a more palpable, tactile sense of unrestricted flow to the musicality.

A feeling of composure through even the most raucous tracks. "Figure 8" off Tahliah Debrett Barnett's (FKA twigs) 2015 album *M3LL155X* has the ability to peel the skin off listeners, and tear apart loudspeakers at volume in the wrong system.

Through the d-1, and the Soro being fed from the P10 "Figure 8" is the electronic equivalent of a high-speed car crash involving a dump truck, and a Lamborghini Huracan: gut-wrenching bass impact like ceramic, and asphalt rending welded steel from itself while being ground across concrete at 80 miles per hour.

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PS Audio Perfect Wave 10 Power Plant: \$4,999 USD  
PS Audio DirectStream P20 Power Plant: \$9,995 USD

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It's a driving sonic maelstrom. The track rumbles the window panes in my home, and the electronically-enhanced bottom end is there in all its thunderous glory. The almost physical wall of keyboards, synths, computer-programming effects, and vocal arrangements that I've heard smear together in an auricular haze on some systems is here articulate, musical, and most of all alive with human presence.

Swapping in the P20 noticeably widens/deepens the already cavernous sound stage, further lowers the noise floor, and allows a deeper emotional connection to be made with the conviction that Barnett brings to her snarling, hyper-vocal singing.

George Harrison's 1970 triple-LP *All Things Must Pass* was his first solo effort following the breakup of The Beatles earlier that year. Co-produced by engineering legend Phil Spector, it features his Wall of Sound of production technique, and was referred to in Rolling Stone as "... the music of mountain tops, and vast horizons." Recorded mostly at Abbey Road Studios, the album is awash in overdubs, and star power with a huge amount of artists contributing to the sonic flavour, not the least of which were Eric Clapton, and Ringo Starr. The LPs possess a huge amount of air, and space around both Harrison's vocals, and those of the many back-up singers employed, with a deep sound stage populated by myriad instruments that could be daunting to separate from the mix, but with the P10 firmly in control of the amplifier's

power diet, never stray or overlap into each other.

Tone, and timbre of instruments are spot-on, with wood-bodied ones in particular in possession of the proper scale, weight, and resonance that I associate with real acoustic guitars.

Organ, and piano notes are mellifluous, and the slide guitar, and horn arrangements have a bur-nished, brassy flavour.

Opting in to the P20, the already big, hip-shaking bottom end seems to swell in size, and weight, with a deeper tonal shading now coming through. Vocals take on a sweeping, more expansive quality to the air volume surrounding the physical arrangement of singers, and a more chesty composition to the character of the oral discourse. This was a scenario that continued to play out every time I listened to a track off Tidal, closed the lid on a CD, or dropped the needle on an LP: everything that was pulling me deeper into the listening experience, into the meaning of the artists intent through the recorded medium – be it digital or analog – was enhanced through the P20.

If the P10 was helping sink me into the depths of the song, the P20 was like throwing an anchor, and chain around my legs as I sank down. It seems that with this latest (and largest) edition to the company's regenerator line (a new DirectStream Power Plant 15, and 12 have been unveiled since I received the P20), PS Audio has taken everything I've come to expect, and appreciate from the P10, and improved upon it wholesale. **T/O**