

hi-fi+



Power Plant Regenerator

The PS Audio Power Plant Premier Regenerator

by Roy Gregory

On the face of it, regeneration is a simple concept; take the AC power from the wall and instead of feeding it directly into your equipment, use it instead to run a signal generator and a power amp, set to output a clean 50Hz AC waveform. The first units I saw arrived around a decade ago, initially from Accuphase and then shortly after Burmester, although that's reflects my awareness rather than any strict chronology. But these units were large and expensive and they were soon followed by a slew of more affordable alternatives and imitators, not least from PS Audio who swiftly launched a whole range of different designs, varying in capacity, weight and size.

The problem was that regeneration, like many a simple concept, proved to be far more complex and demanding when it came to actual execution, and many of these designs disappeared as rapidly as they'd emerged. But PS Audio have always understood the prime importance of power supply quality and stuck with the problem. We reviewed the smallest (300VA) of their original supplies and found its performance promising, especially at the relatively modest asking price. But it was large and ran extremely hot but the sonic benefits were undeniable. Unfortunately the size and temperature issues were exacerbated in the larger versions, culminating in a massive 1.2KVA behemoth that was a serious two-man lift.

Now, six years on, we have the latest generation regenerator (!) from PS

Audio, the Power Plant Premier, or PPP as it's more commonly known. The product of lessons learnt with the earlier designs, this is a far more accomplished and sophisticated beast. It's slim-line and beautifully executed chassis is weighty but readily manageable, cool running yet capable of delivering a substantial 1.5KVA, more than enough to run most systems. Despite this dramatic increase in efficiency over previous models, the PPP still contains a cooling fan that you might just about hear for a few seconds as it cycles through its self-check

sequence on switch on. Quiet enough not to worry you



unless you place the unit right next to your chair, in practice I never managed to activate it in use, even with the PPP driving a pair of serious mono-blocks on the end of a valve pre-amp and CD player as well as a four motor turntable! Okay, so summer is yet to arrive, but unless things get seriously hot I can't see the fan coming into play.

At £1800 this compact PS Audio actually looks expensive in material terms, but once you examine its minimal domestic impact and extraordinary

capability that perception soon changes. With five main, independently isolated and filtered outputs and a host of associated signal socketry (to allow protection of modems, Sky boxes and the like) the PPP is clearly versatile, but it's not until you investigate the front-panel display that you start to realize that it delivers both genuine insight into the state of your mains supply and the ability to extract the best from it.

The display toggles through a six-position menu, showing you the input voltage to the unit, the output voltage from its sockets and the differential between the two. Then it shows you the %THD of the input signal, output signal and once again the differential between

the two. All very interesting you might well think, but so what? Well, the PPP allows you to either decrease or increase its output voltage by ± 10 Volts. On the review unit that was achieved by turning a small set-screw in the bottom plate – a somewhat fiddly exercise, which helps explain why current production units now have a thumbwheel to facilitate

the process.

The significance of this adjustability is two-fold: using a tester the dealer can calibrate the display in the customers home and system, and having done so, the output voltage can then be optimized by examining its impact on the THD. Don't just assume that 230 Volts will deliver the best results; you may well be surprised.

But even more than the basic



The PS Audio family tree...

The PPP resides at the top of a whole suite of power products, all of which employ PS Audio's anti-surge input cartridge. Next down the tree is the Quintessence (£999) which, whilst outwardly identical to the flagship unit, dispenses with the sophisticated regeneration facility, confining itself to significant levels of the more commonly seen shunt filtering to deal with RF pollution of the mains. Then comes the Quintet (£395), which builds the rear-panel versatility and functionality of the PPP into a substantial horizontal extrusion, containing a lower level of RF protection. Finally, the Duette (£249) is a simple two-way extension and anti-surge unit that can be used in isolation or to increase the number of sockets available from the larger units. All these are built to the same standard as the PPP, making the budget designs especially impressive. All are available with US, UK

or European Schuko socketry, and serious students of AC power may well opt for the superior sound of the US connections, or the reversible phase advantages of Schuko over our own 13 Amp standard.

There are also four power leads available. These start with the Prelude, a



basic three-conductor design that costs £149 for a meter length. £249 will buy you the Plus, a heavier

cable that employs twin conductors for live and neutral, while the Statement (supplied with the review unit) increases the total conductor count to seven at a cost of £399. Finally, the £699 Premier uses the same configuration as the Statement but employs silver conductors. But once again there's slightly more here than meets the eye: the IEC connectors make a really solid contact with sockets – so much so that you can easily lift the substantial mass of the Quintet by its power cord, while the input end is always terminated with a US plug, supplied with a high quality adaptor (£15) where required. The earth pin of the US connector can be unscrewed, making

lifting the earth to chase down loops

and noise problems simplicity itself, without compromising the integrity of the earth connection. Thus even the humble power cord becomes a model of versatile practicality at the hands of Paul McGowan.

▶ functionality, it's the additional thought that's gone into the PPP that really impresses. Input is via PS Audio's anti-spike/anti-surge cartridge, a replaceable element that provides genuine protection to the equipment connected after it (a fact demonstrated to spectacular effect by PS Audio head

paths are kept as short as possible to preserve dynamics and musical impact, each output socket provided with its own common mode filter. But the PPP sees the introduction of a new choke technology developed by Hitachi and dubbed Finemet. This material has the highest magnetic permeability available, allowing components to be

thumps, or worse, actual damage.

In use the PPP requires a little respect when it comes to connection, switch-on and optimization – largely consisting of making sure that everything's off before connecting to the wall and then allowing the unit to stabilize before switching it back on and then the electronics connected to it. Tweaking the settings will normally be done by your dealer, but is a straight forward enough process to carry out yourself with a little guidance should it become necessary.

Where a unit like the Vertex AQ Elbrus is very much one cog in a wider conceptual picture, the PS Audio is a standalone add-on to just about any system. As such it's plug and play – and yes, you'll certainly hear its impact used in this way. But like all other aspects of the system foundation, it is also part of the whole, and combining it with a coherent set of high-quality mains leads is pretty much de rigeur if you want to really hear what the PPP is capable of. On its own it's impressive enough, as is a decent set of power cords. But combine the two and as with all the other components that contribute to establishing your system's foundation, ▶



considerably smaller and, as a result shortening the electrical path by an order of magnitude over previous PS designs.

honcho Paul McGowan in a video clip on the company's website that's well worth a look). If you are unfortunate enough to suffer a sufficiently large spike that the re-set button won't restore operation, the damaged cartridge will be replaced free of charge by PS. Internally, the electrical

Sound fanciful? Hitachi supply copious documentation to support the material's performance. Then there's the data bus connections and the associated bank of small switches that allow the unit to interface with a remotely operated set-up as well as stagger the switch-on of the various units to avoid embarrassing

▶ the whole is far greater than the sum of the parts. With three Statement leads to hand, I was able to run the whole system from wall socket onwards on the same cable – by far the best solution. And yes, even with a regenerator like the PPP, the cable that connects it to the wall is still the most important single wire in the system. Why? Because the less work you give the filters and regenerator to do, the better they're going to sound.

I started by adding just the PPP into the basic system, which resulted in an immediate increase in the sense of musical flow. Where the basic set-up was nice enough on the TVZ track, it tended to smooth over the hesitations and edges that make this recording so stunningly immediate and natural. The PS Audio rendered both the vocal and guitar lines far more convincingly, while a dramatic drop in noise floor gave a blacker background, a greater sense of focus and separation, more body to images and a more coherent perspective. The rather awkward separation of voice and guitar witnesses on the original system was collapsed, and if not perfect it was now far more credible. Likewise the impromptu backing vocals (human and canine) were far clearer and more audible. On the Art Pepper track, the bass and piano took on a more motive stance, starting to drive the track forwards by adding a little slink to what had been a ploddy, heavy rhythm line. Where it had sounded laid back, even turgid, now it showed a hint of life, the first stirrings of some underlying purpose or urgency.


But adding the Statement power cords between first the wall and the PPP and then the regenerator and the CD player and amp transformed the performance. Collectively, the upgraded leads delivered body, colour, space and presence, building on the already impressive sense of musical flow and overall coherence instilled by the PPP. Now the plucked bass notes on the Pepper had real shape and texture, their juxtaposition with the piano line at last

falling into the dirty, smoochy groove that characterizes this track (and makes it so hard to get right). Townes Van Zandt's voice and guitar were more present and immediate, yet paradoxically, stepped back behind the plane of the speakers and into a much more coherent and accurate acoustic space. And whilst the enunciation and phrasing, the hesitations in the voice and odd clumsy fingering on the fretboard all added to the sense of expression and natural delivery, it was the overall temporal stability imposed by the regenerator, the feeling of things happening in their own time, that made the track so convincing, the rawness part of the experience. The awkwardness is in the performance now, rather than the system struggling to reproduce it.

But if one track really highlighted both the considerable strengths of the PPP and how it differs to a unit like the Elbrus, then it has to be the Rachmaninoff *Symphonic Dances*. From the opening notes the added sense of acoustic space, the clearly delineated rear wall and the dramatic tension that characterizes this performance were immediately obvious. Where the original system had sounded congested, flat and strained on the crescendos, the presence, colour, dynamic range and musical coherence that were injected by the PPP and Statement cables brought the orchestra and music to vivid, bold and purposeful life. No shortage of forward momentum now, no sparing the horses, and if the calm, relaxed stability of the PPP stopped things becoming a headlong rush, now they had an inevitable and unstoppable momentum propelling them forward. The music simply powered through the ascending steps to the mighty climax that closes the opening section, carrying all before it in a display of majestic power and physical presence, devoid of the strain or edge that can make less capable systems seem superficially louder (but ultimately more wearing). Impressive indeed – in both hi-fi and musical terms.

That sweeping sense of grandeur

makes for compelling listening, but does come at some cost. The same presence and body that picks out those impromptu backing lines on the TVZ and fleshes them out into a real person, singing along, the sheer body and towering presence that makes the Rachmaninoff such a powerful musical statement – those things rob the music too, of some inner detail and micro-dynamic agility. It's the age-old conundrum; are you more interested in what's being played or how the player's playing it? The PPP stands squarely in the former camp, its innate sense of overarching musical coherence and flow making for an emotionally involving listening experience. It's unforced and unhurried, bringing natural perspectives and a natural sense of pace to proceedings. It delivers a holistic picture and one that's both impressive and satisfying without having to resort to being too obvious. As a result, long term listening is a joyfully strain-free experience.

If you want to get up close and personal with the performers, then a unit like the Vertex will get you within touching distance. The PS Audio is about something different: the musical whole, the shape of the piece rather than the strands that make it. This is about music as experience rather than about performance as an intellectual exercise. This is about the message in the music and if that's what you're after then the PS Audio PPP delivers it loud if necessary and never less than clear. 

Price:

PS Audio PPP

UK Distributor:

Signature Audio Systems

Tel. (44)(0)208 480 3333

Net. www.signatureaudiosystems.co.uk

Manufacturer:

PS Audio

Net. www.psaudio.com