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SW1X LPU-II - tube phono preamplifier

“A new *purist* phono stage”

Product: SW1X LPU-II Phono-Preamplifier

Manufacturer: [SW1X](#) - UK

Cost, approx: 5000 Euro ([YMMV](#))

Reviewer: [Geoff Husband](#) - TNT France

Reviewed: November 2017



Introduction

Some components are easy to review, speakers have gross difference that just leap out at you, often turntables do the same. But the truth is that though these gross difference are easy to describe to the point where the review writes itself they are often less than fundamental. For example a speaker with a forward midband will sound 'middy', but the ear soon adapts and in most cases those speakers will sound increasingly 'flat' as time goes on – only to have you finding the next pair of speakers sounding very dull in comparison – the old one-hand-in-hot-water-the-other-in-cold syndrome ('habituation' being the correct term).

However some components show much smaller differences, but long-term those differences tend to be absolutely fundamental. One such component is the phono stage – providing they offer a reasonable RIAA correction, one good stage initially sounds much like another. And yet over an evening's listening you will find that often you'll have a strong preference for one over another – it's just that here the miserable scribbler has to find a way of trying to describe small but fundamental differences and that's not easy (or at least this writer doesn't find it easy).

To this basic difficulty you add the fact that the performance of a phono stage is dependent on a synergy between it and the cartridge and even cables used. It is after all, the stage of amplification where the tiniest and most vulnerable signals are handled and tiny changes in something like impedance matching, or even the support can have a major affect. To then write a review with some definitive statement on it's ability when you've only had, at best, a handful of cartridges and suchlike out of potential combinations running into tens of thousands seems an impossible task.

If this sounds like a cop-out then so-be-it, but it's my attempt to be both honest, and place a health-warning on what follows – YMMV was never so appropriate...

So to the SW1X LPU II

There are many different types of phono amplifier, all attempting to get the tiny signals from the cartridge up to line-level and correct their RIAA curve. For many people the absolute top of the pile phono stage can only be produced using valves and the ultimate is the full single-ended, zero-feedback, valve rectified, hard-wired, stage, and this is what we have here. A great big box full of glowing tubes and hefty transformers – to see the full technical spec etc please go to the [SW1X website](#) which does it far better than I could.

'Big box' isn't the half of it – this stage weighs in at 11kgs and at Height 130mm x Width 330mm x Depth 400mm it is so big (especially the depth) that it won't fit on some hi-fi shelves. The box itself is very substantially built in what looks very like an Audio-Note case – subdued, classy and expensively restrained with just a dim LED as decoration. At the back are the standard RCA in/outs and grounding post – all very high quality along with the usual IEC 'kettle' socket and on/off. The overall impression, both inside and out is of an expensive piece of kit – beautifully put together. From a new company that's impressive. It's not massively innovative, just an interpretation of the classic valve phono-stage.

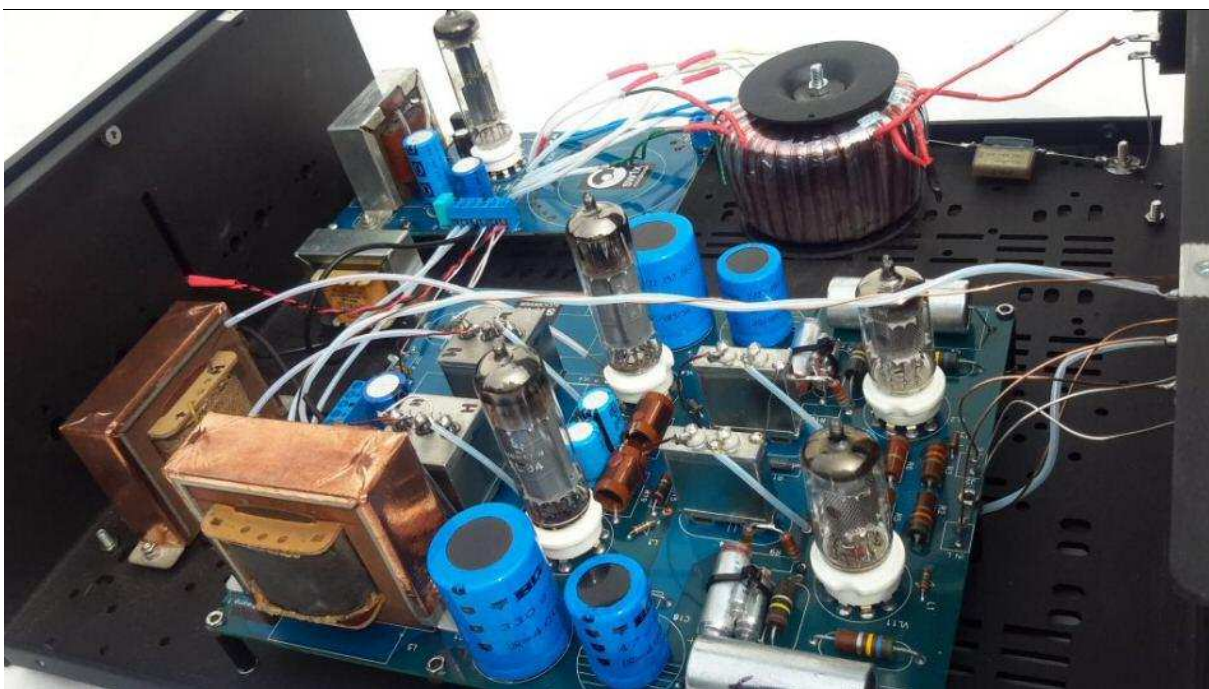


I mentioned Audio-Note above and it's plain to see that this is very much a competitor in that rarefied market, and so I was very interested in how the stage performed given my experience with my Audio-Note M3 pre-amp which used a not dissimilar, built-in phono section.

To make life even more difficult the LPU II is fairly typical amongst high-end valve stages in being MM magnet level only – which means you need a step-up of some description between cartridge and stage, or only use high-output cartridges. As most of the sort of expensive MC cartridges likely to be used with a stage of this quality are going to be low-output it means that another variable sticks its nose into the review...

Fortunately amongst my collection of equipment I have a few items that helped a little;-) The first and perhaps most significant was Roy Gregory's 'Music Maker Classic'. This is a quirky 'Moving Iron' cartridge based on an old Grado design and very, very heavily modified with silver coils and line-contact stylus. This cartridge has something of a cult following in valve-amp circles, not least because its output is well into the standard MM class and so will drive stages like the LPU direct.

The second is that when Dynavector sent me their DRT 1t for review it came with its own active step-up (the DV-PHA-100) a current amplifying device - if Dynavector themselves deem it the best match for their take on the best-cartridge-in-the-World then it should be good enough to drive the LPU. I know that most people would use step-up transformers for this but having a matched step-up specifically designed for the DRT took this major variable out of the equation...



I also had a cheapo high-output MC in the shape of the Ortofon X5, but to be honest this was only used in the initial running-in stage and though the pairing worked just fine it's really not in the same class as the other options.

For comparison I had to hand a raft of well liked phono stages. The Lehmann Black-Box SE and Slee Gold are both giant killers, but in this company the giant is just a little too large. My recent memory (and notes) regarding the M3 were still relevant, but inevitably the LPU found itself being compared mostly to my own ESE Nibiru stage – a MC only transistor stage which has kept 'clear blue water' between it and anything else passing these portals over the last 10 years and which is considerably more expensive than the LPU.

In Use and Sound Quality.

So enough pre-amble – the stage is simplicity itself. Plug the arm leads in, the line out to the amplifier and hook up the earth wire. Then a switch on the back (why not the front?) and that's it. A small LED glows, there's a few seconds of warm-up and the very faint hiss of the cartridge. And that's important – because unlike many stages, especially valve, this is very, very quiet. It also seems to be far less prone to earth hum and the like, something that plagues the Nibiru to such an extent I find it unusable in some combinations.

Initial impressions were very positive – the stage showed all the detail and speed of the Nibiru with slightly lower noise. It had a slightly 'warmer' feel to it but I wouldn't describe it as a warm sounding stage – in fact less so than many transistor stages I've had here. I spend a great deal of time comparing my old Audio-Note M3 pre-amp with the Nibiru before I bought it, and the LPU seemed to offer a similar set of abilities to the M3 – I guess that's not surprising given the similarity between the two stages. However readers will know that in the end the sheer transparency and detail of the Nibiru (plus the fact that it made reviews easier) gave it enough of an edge for me to buy it for my own use. But now there was the feeling that somehow the balance had shifted a little and I found myself increasingly preferring the LPU.

But I'm getting ahead of myself...

Make no mistake, this is a phono stage with serious high-end pretensions. For that reason it was used in my main system with the Dr Feickert 'Blackbird + SAT arm sporting the big Dynavector and the same turntable with the Audiomeca Septum supporting the Music Maker... Amp was the Ayon Crossfire and my own Loth-x Polaris horns. In addition it was also tried in the review system with the Goldnote Mediterraneo with Tuscany cartridge – step-up again the Dynavector PHA-100. I did try the Tuscany direct in the hope that its 0.4mv output would be sufficient but the result was thin and with too little gain – I should have known better... However the initial run-in period rather turned the review upside down...

When I was running the LPU in, I used it with my Opera LP5.0 turntable with the old Ortofon X5 – immediately it sounded good, and so good that it was nip-and-tuck with the Goldnote combination using the Lehmann Back box. Now this had me sitting up and taking notice as the two turntables were of similar quality, but the cartridge on the Goldnote cost 15x what the X5 cost – so superior was the LPU to the Lehmann stage that it lifted that cheap, plastic MC enough to have it fighting with a 4000€+ high-end moving coil! Now it could be argued that the total cost of cartridge and stage was in a similar ball-park (though the X5/LPU was some 40% cheaper) but it immediately illustrated how important the phono stage is.

So now I felt it time to experiment further. One of my 'giant-killer' finds of late has been the Hana SL Low-Output MC Cartridge. At 700€ it makes a serious attack on the high-end. So I contacted Hana and they kindly sent me another cartridge for this specific test. This cartridge is also available as a high-output version, but for the review I used the Dynavector step-up – no longer available, but for 600€ the Graham Slee Elevator gives a very similar performance.

Do you see what I'm doing here? In one system I have a very well respected phono stage – the Lehmann – at around 800€, coupled to a 4000€ cartridge that I know is one of the best money can buy. On the other an 700€ cartridge with the LPU (3500€) and a 600€ step-up. Thus a direct back-to-back comparison of two equally expensive combinations, but with the money allocated completely differently.

The result was both illuminating, and decisive – the LPU system was superior in every aspect. There was no fudging the result, on all types of music the LPU system just felt more complete – better soundstage, more detail coming from a blacker background (which incidentally has little to do with background noise) and a feeling of ease of listening that only comes with serious class.

Just for devilment I swapped in my own Nibiru instead of the LPU and the result was the same.

So a rather important question answered (which no-one had asked ;-)... If you have say 5000€ euro to spend on a cartridge and stage then a really classy stage like the LPU or Nibiru will give a better quality than the other way round. The icing on the cake is that given that a cartridge probably needs replacing after 1000 hours or so you're running costs are going to be a whole lot less too. I guess I should have done this sort of test long ago, but there you are...

But now to the main event and serious listening and comparisons were undertaken using the main system.

The combination of the LPU and the Dynavector was simply gorgeous to listen to. This time of year is tough for me to find time to just sit and listen but somehow I just got drawn in to evenings listening when I should have been working. There was that lovely feeling of being able to become immersed in the music. Of course this sort of quality is what I've become used to over the year with my own Nibiru, so we're not talking some kind of revelation here, and even the Slee Gold gives much of that quality, but it's a quality that has been absent from many of the stages I've had here.

When we get to this sort of level of phono stage, we're not talking about *great speed in the bass, fantastic imaging* and the like – these should be taken as a given and of course the LPU does all of this – it sounds ultimately like nothing at all – as if that amplification stage isn't there which is precisely how it should be.

I really struggled with this review to pin down exactly what these top stages do and to explain the differences between them, and one sleepless night I came up with the following analogy which you can treat as you will.

Most of you have been to the opticians. You sit down and the optician puts those funny heavy 'glasses' on you and starts swapping round lenses. Now you know that there's a point where you can see really well – read all the lines and so-on – at this point it's swapping in and out between lenses very close in power and rotating them for

maximum acuity.

Then you get to a point where it's really, really sharp – the difference between that, and the 'almost there' is tiny but utterly fundamental. And then it goes just a little too far and though everything is pin sharp you feel that your eyes are just starting to strain and you know that you'll get a headache after ½ an hour.

Comparing top phono stages is EXACTLY like that. You get something which is really in focus and then a change and that focus becomes even better AND more relaxing to listen to – that is the 'golden' spot that you are trying to achieve and which once found is obvious. Then there's the stage that is utterly brilliant, incredible focus and detail and everything pin sharp – but... It's like that lens that is just a tiny bit too powerful – you find that after ½ an hour it's just a tiny bit wearing.

Now looking at the stages here – the Slee Gold is right there, both focussed and easy – but the LPU is like that last lens the optician drops in and you say 'yup – that's it!'

But then there's the Nibiru... It's close, but after days of listening I'm inclined to think that the LPU makes the Nibiru feel like it's trying just a tiny bit harder – perhaps too hard. The Nibiru has everything laid out before you, but the LPU seems to add a layer of both 'ease' and at the same time more colour and dynamics to the music. I had exactly the same dilemma years ago when I was comparing the AudioNote M3 to the Nibiru prior to buying it, and concluded in the end that the superiority of the Nibiru in detail and sound-staging was more than worth the trade-off against the extra dynamics and ease of the M3. But here there was no trade-off. The LPU matched the Nibiru all the way in it's strengths, but has the M3's attributes too.

And that's the reason I found myself listening to the LPU so much – because it brought back the qualities I'd loved and missed from the M3 without leaving me feeling short-changed in other areas.

Which then brought me to the second option I had available and that was to run the LPU direct from the Music-Make Classic. Now things got even more interesting as we enter real hair-shirt territory with not a transistor sullyng the path from stylus to speaker... Compared to top moving coils, generally costing multiples of the Music Maker's 1200€ - this cartridge matches them in levels of detail and sound-staging, and with terrific speed in the bass, but I've tended to use my higher-end MC's because in comparison it can sound a little mechanical at times, losing out on the decay of notes, the ambience around certain voices and the harmonic complexity of things like violins and warmth of double-bass...

Read the couple of paragraphs at the top of this review and you'll see me winding up to a big 'caveat emptor' moment, but this was a match made in heaven from the second the first record (Bronski-Beat 'Age of Consent' if you must know) was played. Now run solo with no form of step-up the LPU finally made the Music Maker sing in a way I'd never heard before. The lack of texture was gone – now full, rounded instruments came out of the speakers and the slightly 'clanky' nature on some discs banished – that first record with all its synth and beat-box being a prime example. And just to drive it home it gave Jimmy Summervilles extraordinary voice the body it needed, a strange combination of electronic instruments and a relatively un-faffed-about-with vocal that just work together.

For years valve-heads have been telling me just how good the Music Maker is and now I could see what they were on about. It still wasn't as rich as the Dynavector but it was so transparent, never wearing, always musical through the LPU.

This is a fearsome combination, and although the total price very high-end, with the cost of running the Music Maker a fraction of an exotic the sums started to add up pretty convincingly.

So to follow variations on a theme I borrowed my Father-in-Law's V15 – readers will know that I found a replacement stylus for this in the shape of the Ed Saunders which at 50 € or so made it real beer-money as a cartridge to run. Not as good as the Music Maker, especially in fine detail, it got very close everywhere else and managed to pull a warmer, slightly more bass-rich performance. A cartridge costing 50€ to retip was resolutely musical to a high degree thanks to that LPU – I don't think I need to go on about the significance of that further...

But to sum up in isolation? First thing to realise is that 'valve' doesn't mean warm and cuddly. In fact because the LPU is so forthright it can seem that it veers to the brighter side of neutral and I played quite a bit with cabling to get it spot-on - in this respect it was a little reminiscent of the Loth-x 300b amplifier. At this level and especially with the LPU you are dealing with an utterly revealing device, this is in no shape or form a 'forgiving' component. Even changes in how you run cables are audible and things like supports and mains supplies will have an affect. If you are fiddling with cartridge adjustments – VTF etc then you'll hear it loud and clear and more to the point if anything isn't 100% right you'll find the stage less comfortable to listen to than something a little less revealing. For that reason, if you're ancillaries aren't up to scratch, or if that sort of commitment is just too much the LPU may just be that bit too close to the mastertape. But get it right and you'll see what all the fuss is about...

Conclusion

I hope you, the reader, will forgive the way this has become such a comparative review but as I implied in the preamble you need to have references in order to make any sense of the ability of a phono-stage. I won't go into the hours spent swapping cables and fiddling with supports because a) you don't have my cables and supports, and b) the likelihood is that in another system the results might well be different. But I hope that my admiration for the stage has come through.

The one aspect that intrigues me is that here we have a company that appears to be tilting aggressively at the AudioNote crown. The casework is very similar, the build quality ditto, they even rank their components in 'Levels' 1,2 and 3 much as AN do, with an increasing use of Silver wiring, better caps and the like. And being built in the UK there's no simple 'Chinese' clone going on here, rather an attempt to take on one of the specialist market's leaders directly using a different take on the classic valve Phono Stage – and one which is well priced compared to the competition.

In the end I'll go back to my initial premise/cop-out that phono stages are totally system dependent. With this in mind SW1X have a generous loan scheme and I would strongly recommend anyone to take advantage of this and listen to the stage in their own system at home. If like me you find it a stage worth keeping for a long time then great – if not you'll be able to try something else – It's a policy other manufacturers should follow.

Manufacturer's comment

The core ideas of Audio Note product design (regardless whether from Japan or UK) have always been inspirational to us. We have chosen to follow a similar path when it comes to designing musical sounding products. Music by its very nature is an analogue signal borne from mechanical vibration, whether it is the vocal cord of a vocalist, string of a guitar or the skin of a drum. A colossal amount of musical information (directly captured from mechanical vibration) is locked deep in the grooves of a vinyl record. Our objective is to create audio equipment, which is time-less i.e. capable to dig deep into hidden musical information, which is locked deep in those grooves, i.e. reproduce a recording the way the musicians intended the music to sound like.

In order to reproduce music at its best possible glory, we believe that it is only possible when the circuit design is a) elegantly minimal, b) consist of highest quality components and c) everything is harmonically matched. Just like the AN M3, the SW1X LPU II employs a classic 2 gain stage pentode input design. Similar circuit designs were used to master vinyl and analogue tapes in the 50s. SW1X LPU I and LPU II are not just an interpretation of the classic circuit design but rather a re-incarnation of the classic design with further improvements in its implementation. In comparison to the AN M3, where double triode valves are used in the input/RIAA equalization stage, the LPU II circuit design employs EF86 pentode valves, similar to EF80 in AN M9. Instead of having a RC coupled double triode on the output as found on M3, our circuit employs a pair of EL84 power pentodes (in triode mode as used in SE power amplifiers) which are choke loaded and are powered by CL or CLCLC power supply (depending on the LPU II version). Choke loading in the output stage increases dynamics similar to output transformer, reduces the number of gain stages and in the same time it lowers the output impedance compared to resistor loading. Regarding the point on the power switch, there is a reason as why it is at the back. The wiring path to the mains transformer is so much shorter, which not only sounds better but also creates less issues with EMF interferences with such as sensitive circuit as phono amplification.

Overall, we are proud to have re-incarnated a phono pre-amplifier that is characterised by a powerful & dynamic sound with natural, life like presentation- a sought after combination in analogue playback that makes any digital source (especially with resistor based I/U conversion stage) sound dull and dynamically compressed in comparison. In the right system, the LPU II makes acoustic instruments and human voices sound completely unrestrained, naturally organic and lacking of any mechanical signature in such a way that we are reminded of a live event. The ability of LPU II to portray music from analogue source in a bold fashion is a prime example that quality of music reproduction cannot be a result of complexity in engineering, neither an outcome of audio technology progress, despite all the (questionable) progress made.

Dr. Slawa Roschkow, 20.10.2017

systems used

- Vinyl: [Dr Feickert Blackbird SME V-12 Music Maker Dynavector Karat 17D3](#)
- Phono stages: [GramAmp Era Gold Lehmann Black Cube Twin](#), [ESE Nibiru](#)
- CD: [Audionote Zero CD/DAC](#)
- Amplifier - [Ayon Audio Crossfire](#)
- Cables: FFRC and Sonic Link speaker cables. DIY silver interconnects. Audionote silver interconnects.
- Speakers: Loth-x [Polaris](#) and REL Stentor.

Test records used... - [Killers](#)



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