

EQUIPMENT REVIEW

Pass Labs XP-25 phono preamp

By Alan Sircom

Pass Labs is a firm favourite among our US counterparts. One of our sister title's mainstay reviewers – Tony Cordesman – owns several Pass Labs products in his system, including this – the XP-25 flagship two box phono stage. On the basis of its performance, it's not hard to see why.

Pass Labs has always stuck to its guns. It makes amplifiers, and although it does list two loudspeakers in the range, it's an amplifier brand first and foremost. The brand is the high-end expression of Nelson Pass, one of this industry's best respected electronics designers who, when not only builds 'em big, but builds 'em small (First Watt) and invites others to build 'em too (Pass DIY).

Pass (the man) is something of a visionary in amp design, and that means his designs have an ethos behind them, one that's common to all. Put simply, it's a kind of Occam's Razor of circuit design; a simpler design is better than a more complex one. This means the right number of components in the signal path (too few and the product performance begins to suffer, too many and it might look good on the test bench, but not sound as good in the listening room). To this end, the circuit must exhibit the maximum linearity long before any application of local or global feedback is considered. And in practice, this means careful selection of components in that signal chain, both in terms of the right device for the specific task, and careful matching and evaluation

of components before they go on to the PCB. And this set of ground rules have been handed from Pass (the man) to Pass (the brand) and even on to Pass protégé Wayne Colborn, who designed this particular model

Pass Labs is resoundingly solid-state, and recognises a good power supply when he sees one, and the XP-25 is a two box affair; the off-board power supply module feeds the phono stage proper through a DIN-25 connector. Keen eyed types might notice two DIN-25 connectors on the power supply; this can be used to also feed the XP-20 line preamplifier. Pass recommends a separate power supply for both devices where possible, but that the manual discusses the requirements of aftermarket DIN-25 cables is more likely to mean people have asked the question rather than Pass thinks the cable it supplies is underperforming.



When it comes to high-end phono preamps, they seem to fall into two categories; preamps that allow adjustment of EQ curve, and those that allow fine tuning of cartridge loading. A few do both. This one stays firmly with the RIAA curve, but affords the user a wealth of adjustment over the loading of the cartridge. This does demand some careful thought on the part of the listener. The XP-25 is the sort of phono stage that has simple 'Moving Magnet', 'Moving Coil' settings; you need to know the basic parameters of your cartridge before you start twiddling knobs.

The front panel of the XP-25 (the business end, at least; the power supply just has one blue LED in the middle of that thick front panel) has three large control dials, similar to those found on Copland and – if you can remember this far back – Cello. From left to right, these adjust resistive loading, reactive or capacitive loading and gain. There's also a row of smaller buttons, to select input (there's provision for two decks, as well as balanced and single-ended output), a low-pass filter setting and a mute button. With nine different resistive settings, six capacitive and three levels of gain setting, if you think you just can 'wing it' with 162 different permutations, some of which will deliver a very loud sound through your loudspeakers, good luck with that. My take on this: RTM (Read The Manual).

OK, so if reading a manual brings you out in hives, here's the basic tale. You are on reasonably solid ground to assume the combination of resistive at 47kOhms and 100pF of parallel capacitive and gain of 53dB loading spells 'moving magnet' (I'm not sure how many MM enthusiasts will use a £10,000+ phono stage, but the settings stand regardless) and pretty much the same with a 66dB loading puts you in moving iron territory. If you are using a moving coil, you need some records you are familiar with, some intellectual rigour, and time. Mute your preamp, turn the gain to 66dB or 76dB



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(depending on output of your moving coil cartridge), the resistive load to 100 ohms and 100pF reactive. Unmute the preamp. Give it a couple of minutes to settle down and play anything between 10 minutes and an hour's worth of music you know well. Move to 50 ohms, and think like an optician (better or worse?) only listening out for indistinct bass or sharp treble. Repeat the process until you find a spot where the sound seems at its best. Now do the same with the reactive settings. Use a variety of albums to ensure you aren't setting the XP-25 too specifically for the sound of an LP instead of the sound of all your albums. This whole process could take a day or more, but eventually you'll find your cartridge's happy place and when it's done, it stays done. Note, this might be somewhat different to the data provided by the cartridge manufacturer, because different wires between cartridge pin and phono stage input can alter the capacitive loading required in the phono stage itself. Just remember when you are done to jot down the settings, just in case some passing three year old plays 'safecracker' and messes them up.

Once setting is over, you are left with a remarkably silent background from which to play your music. There's virtually no gentle hush from the electronics or self-noise from the cartridge, just near silence. Then you put a needle in the groove, and all the struggle of setting up the right loading just melts away. This has one of those sounds that makes you long for more legato in the word 'satisfying'. It's not lush or thick or woolly sounding, but it has so a complete an absence of grain, hardness, stress or solid-state edge that you might be mistaken for thinking there are some triodes in there. And yet, it doesn't sound like a valve amplifier, it's not warm or dark or rich or any of those descriptors often appended to hollow-state designs. It's something between those two poles.

In a way, it's a very American sound; inviting, expansive, incredibly detailed, focused on the flow of music from bar to bar rather than necessarily ▶

TECHNICAL SPECIFICATIONS

Inputs: 2x RCA inputs for phono, earth tag

Outputs: single-ended RCA, balanced XLR

Gain options: 53dB, 66dB, 76dB

Resistive loading options: 30 ohm, 50 ohm, 100 ohm, 160 ohm, 250 ohm, 320 ohm, 500 ohm, 1k-ohm, 47k-ohm

Reactive loading options: 100 pf, 200 pf, 320 pf, 430 pf, 530 pf and 750 pf

RIAA response: ± 0.1 dB 20Hz-20kHz

Distortion (MC): $< .005$ % THD @ 1mV (MM); $< .002$ % THD @ 10mV

Unweighted noise: -93 dB ref. 10 mV (MM), -85 dB ref. 1 mV (MC)

Dimensions (WxHxD, per chassis):

43x10x30cm

Weight: 25kg

Price: £12,000

Manufactured by: Pass Labs

URL: www.passlabs.com

Distributed by: Select Audio

URL: www.selectaudio.co.uk

Tel: +44(0)1900 601954

its time signature and tempo. It doesn't underplay these aspects of musical performance – it expressed the dynamism and pace of Surfer Rosa by the Pixies with all the drive and intensity this piece of music needs – but it accents the orchestration and majesty of a recording rather than its abrupt passages. It's perhaps no surprise then that many of the XP-25's strongest supporters tend to be those from the jazz and classical loving end of the spectrum. Don't be fooled into thinking this is a phono stage designed only for classical or jazz; instead think that its refinement, its complete absence of grain and its ordered sense of musical flow are the first things music lovers of these genre seek from a phono stage, and they hit here in droves.

The one slight caveat with the phono stage part of the two box XP-25 is that it is so sensitive, you need to be a little aware of potential hum-fields around the device. It's not the kind of phono stage that can sit too close to a big turntable power supply and even its own PSU is best given some distance. This is more a 'shelf management' issue than a problem per se, because the benefits of the XP-25 are so great, it's worth taking the trouble to get it right. But if you are the kind who treats their system with slapdash and reckless abandon, you need to be more careful with the XP-25 than some. Mind you, a £10,000 phono stage with more than 150 different setting options isn't likely to be used by someone who has the word 'slapdash' in their regular vocabulary.

The Pass Labs XP-25 is a real keeper. Careful setting makes it bring out the best in your turntable system and brings out the majesty in the music on the platter. It's expensive, yes. It's got character, too. But you can't help but be impressed by the sound it makes in the process. Highly recommended. +

