

# WD Series 3

**In the final part of our series on the new World Designs modular preamplifier and phono stage, Noel Keywood measures, and Adam Smith listens...**

**A**s another series of articles on a new World Designs item draws to a close, we have reached the most important part of the evaluation - measurement of and listening to the finished article. Peter Comeau and his team at World Designs have subtly but effectively updated the older series two preamplifiers, incorporating a number of features that make sure the new design is still well ahead of the game.

Full theoretical and construction details have been covered in the January to May 2007 issues of Hi-Fi World, but to summarise, the final design consists of three basic units, each available separately and which can be gradually added together to form a fully specified preamplifier.

Box number one is the power supply unit, PSU3, retailing for £199, which can power both the Pre3 preamplifier and the Phono3 phono stage, either individually or together. Of course, adding a second PSU3 for each of these items is a possible future upgrade path, but the PSU3 is quite happy to drive both simultaneously.

Box number two is the line level preamplifier, Pre3, selling for £299. This has five line level inputs, selected by a relay switching system, for optimum signal transfer and minimum degradation. A set of tape outputs are fitted, as are two sets of outputs for driving power amplifiers. The Pre3 has output transformers

to give a low output impedance and ensure that any power amplifier can be driven properly by the output. This is also an advantage to users who use monoblock power amplifiers placed close to their loudspeakers, as the Pre3 will not balk at long output cables, unlike some units.

Finally, box number three is the Phono3 phono stage. This is available in two versions, the more basic single input type costs £199 and comes set up for MM cartridges, although you can buy the optional transformers for £120 per pair to use MC cartridges. The full-blown version will wilt your wallet to the tune of £349 and comes with two inputs - one for MM and one for MC. These are selectable from the front panel and again facilitated via a high quality relay switching method. A nice (and essential in my view) touch is the provision of PCB pins on both inputs which permit specific components to be soldered across them to allow a perfect load resistance or capacitance match to your cartridge of choice.

So, the full three box setup covers all of the basic preamplificatory bases you could ever need and each unit is housed in a compact, well finished case that will not dominate your rack. But, as we all want to know - how do they sound?

## SOUND QUALITY

As I have found before with World Designs equipment, they nicely dispel any old prejudices anyone still has lingering regarding valves being "soft

and fluffy" or having "no bass". Once again, the Pre3 setup takes these old misnomers and heartily stamps on them! The sound is beautifully sweet and detailed but has a clarity and high frequency composure that is breathtaking.

Starting off with the CD player running through the Pre3, vocalists were impeccably centre-stage with magnificent realism and emotion. Peter Comeau and I were both rather taken by Diana Krall's seductive huskiness and the Pre3 really does her justice - I could have sworn she was in the room with us and was very disappointed when she failed to materialise. At the bottom end, bass was taut and expressive, with commendable weight and pace. I always like to spin a couple of dance tracks when evaluating valve amplifiers of any sort, as this sort of music sorts the wheat from the chaff. Very often, hard beats and fast, pumping bass lines can have a valve amp running for the corner to cower there whimpering, but the Pre3 rose to the occasion splendidly and hammered out Underworld with great gusto.

So, with things off to a good start, I felt it was time to wind up the gramophone and put the Phono3 through its paces. Connecting up our Pioneer PLC-590 turntable which happened to be carrying the Evolution Parallel tracking arm reviewed on page 84, along with a Goldring 1012GX MM cartridge, I cued up Tracy Chapman and...had

# preamplifier

to get up an check that I really was using an MM cartridge!

We are big fans of the Goldring 1000 series here at Hi-Fi World but, much as we love them, they still don't quite have the tonal richness and texture of a good MC. So, why did the 1012GX suddenly sound like it did? I can only praise the Phono3 to the hilt here, as it added a sense of polish and poise to the Goldring which, when added to the 1012s innate dynamism and verve, made LPS a truly sublime experience.

Across the midband and treble, the Phono3 and Pre3 dug absolutely everything out that the turntable was lifting from the grooves and positively illuminated the room with it. Soundstaging, clarity and tonal accuracy were all first class. Being used to our Eastern Electric MiniMax phono stage, which has a gentle bass rolloff, I was delighted to hear the extra weight in the lower registers that I did not realise I had been missing. The Phono3 goes incredibly deep and has magnificent authority in the lower registers.

Moving to our other PLC-590, this time complete with Audio Origami PU7 arm and Ortofon Rondo Bronze cartridge revealed that the MC side of things was even more impressive, with an even bigger soundstage and sense of air to proceedings. The MC transformers do a tremendous job of amplifying the tiny signal from the cartridge without taking anything away from it or, more importantly, adding any

noise. As a result, the Phono3 works magnificently with MCs, and shows just what sort of results they are capable of.

## CONCLUSION

Another success for the World Designs team, the Series 3 modular preamplifier is an excellent device, giving detail, depth and polish to all sorts of music, being equally happy to spend an evening at the opera, or a weekend in a dance tent.

The real star of the show for me, however, is the Phono3 as it is particularly astonishing in its abilities, especially at its modest price. Any vinyl-philes contemplating a change of preamplifier owe it to themselves to check it out, as it not only shows what good MC cartridges are capable of, but extracts every last ounce of potential from MMs as well.

## PRE 3

Frequency response	22Hz-25kHz
Separation	88dB
Noise (dB / ein)	-95dB/1.8uV
Distortion	0.12%
Gain	x12
Overload	5V out

## PHONO 3

MM	
Frequency response	23Hz-25kHz
Separation	68dB
Noise (ein)	0.12uV
Distortion	0.14%
Gain	x182
Overload	5V out

## MC

Frequency response	10Hz-25kHz
Separation	66dB
Noise (ein)	0.047uV
Distortion	0.16%
Gain	x2853
Overload	5V out

At maximum the Pre 3 preamplifier offers a massive x12 gain. This can be lessened if required, as around x3-x6 is more common and suitable for all except very low output sources. The twin triode ECC82 amplifier produces a little second harmonic distortion and will deliver up to 5V output, again according to how the output transformer is connected. Frequency response covers the audio band neatly, with a slow roll down at either end - and no peaking of course. With an external power supply, there is no hum at all and input noise is low at 0.12uV IEC A weighted. So the Pre3 is a flexible valve preamplifier that measures well and has a range of gains.

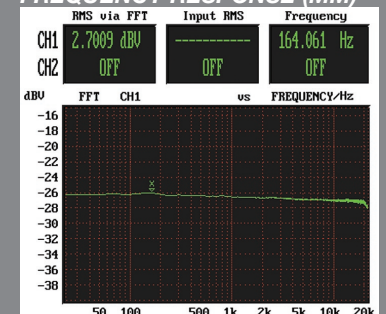
The direct MM input and the transformer MC input both measure flat in frequency response, as our analyses show. Fine details are a small +0.1dB or so response tilt toward the bass end, so unlike many stages this one won't sound glassy or forward. The

transformer MC input rolls down slowly at low frequencies, measuring -1dB at 30Hz, but all transformer stages do this and it usefully avoids ponderous low bass, ensuring a spry sound. Input noise was an incredibly low 0.047uV, a benefit quieter than most solid-state stages and likely on the thermal limit. Gain for MC cartridges measured a high x2853 from a 10 Ohm source, so the Phono 3 is suitable for the lowest output types delivering around 0.1mV or so, especially in view of its low noise and hum. Gain for MMs is also high at x182, enough for low output types.

This preamplifier combo measures superbly. It has enough gain to cope with absolutely any source, right down to Troughlines and the like, and gain is configurable. The Phono 3 stage is purposed for high quality moving coil cartridges and again turns in excellent measured performance figures. NK

## MEASURED PERFORMANCE

### FREQUENCY RESPONSE (MM)



### FREQUENCY RESPONSE (MC)

