

Stellar Lunas

PrimaLuna's new DiaLogue Premium HP power amplifier and Preampifier make a stunning all-valve combination, finds Noel Keywood.

Here's an amplifier with the classic valve sound: vividly dynamic, spacious and relaxing – all at once! One of the reasons is there's muscle behind it: no less than 84 Watts of power for massive volume and great slam. Yet like most valve amplifiers the PrimaLuna DiaLogue Premium HP power amplifier (£3498) and DiaLogue Premium Preampifier (£2998) together have an innate delicacy to their sound as well; this is an amplifier of contrasts.

It's also one I took to, being a purist design using many of the tried-and-tested techniques in the standard amplifier designer's playbook, combined with acknowledgement of demand by potential customers for high power, reliability and low runnings costs: I know it all well as this magazine once designed and sold a similar monoblock EL34 power amplifier, the KEL80 (Nov 1999 DIY Supplement). What PrimaLuna offer in the package reviewed here is a true audiophile build that will – and

does – sound quite different to amplifiers as we generally know them.

The DiaLogue Premium Preampifier has five Line inputs via unbalanced RCA phono sockets, lacking a phono stage or digital input of any sort. There are no balanced XLR socket connections either which is a bit disappointing because double-triodes can be configured to offer this easily enough. There is a Tape output (fixed volume) and two main outputs (variable volume), plus a Home Theatre input. There's a useful amount of gain (x3) that is just sufficient for low gain (x100) external phono stages but volume will have to be wound up high. PrimaLuna surprisingly don't have an external all-tube phono stage so Icon Audio are a go-to here, since it's best with valves to stay in-idiom – and that means not using a silicon-chip phono stage (that most are).

Volume can be changed by a remote control that actuates an Alps motor-driven potentiometer, so you see the volume control magically rotate as if a ghost had decided to

intervene. The remote unit is solidly hewn and slim, having volume up/down and mute functions but not input select.

PrimaLuna use a dual mono configuration in the DiaLogue Premium Preampifier comprising of three 12AU7 double-triode preamplifier valves per channel plus one 5AR4 (GZ34) double-diode full wave rectifier, the large tubes you can see in our pictures sitting behind the smaller 12AU7s. Valve rectifiers do, as PrimaLuna claim, give a smoother, darker sound and are preferable to smaller solid-state rectifiers but their heaters consume power, demanding a larger mains transformer – one reason why this preampifier weighs a meaty 24kgs and is a challenging lift. There are eight valves in all then and they give quite a display, especially when the protective cover is removed; it can be lifted off, there are no fixing screws. Dimensions are 386mm (15.2in) wide, 404mm (15.9in) deep and 203mm (8in) high.

The DiaLogue Premium HP stereo power amplifier came with





The stereo power amplifier has 4, 8 and 16 Ohm loudspeaker outputs, via sturdy gold plated terminals that accept 4mm banana plugs, spades or bare wires.

EL34 power valves in push-pull pairs, four per channel – eight in all. I mention this because valve replacement cost is an issue for some, as it can be if you're looking at 300Bs, for example, that cost up to £300 apiece. EL34s are plentiful and can be had at £60 or thereabouts for matched quads (i.e. 4), so a complete re-valve after 2000 hours or so – many years of use – is around £120.

Bias adjustment is unnecessary: auto-bias is used, in this case PrimaLuna's own "adaptive auto-bias" that uses sensors to sense conditions. It's possible to use alternative KT88s that give a harder and faster sound, or KT120s (clanky) or, surprisingly, KT150s (classy) that need higher heater current; a small rocker switch just has to be moved to apply different bias.

The power amplifier lacks valve rectifiers, using solid-state bridge rectifiers able to handle the current draw of push-pull pairs. It has its own slim remote control unit that switches between Ultra-linear and Triode operation but that's all it does; there is no input volume control. I tried the DiaLogue Premium HP connected direct to our Oppo UDP-205 Blu-ray player (with volume control) and the combination worked well but preferred the sound with the Oppo volume control set to bypass and the preamplifier in place: it was bigger bodied and more spacious – down to the influence of the preamplifier.

Ultra-linear gives more power than Triode operation (see Measured Performance) and in theory less distortion – but measurement showed little difference between the two in this design and sound quality did not vary significantly; Triode has a slightly easier presentation

but pentodes strapped as triodes generally do half the job; I was happy to use Ultra-linear. The DiaLogue Premium HP with EL34s has an easy sound in any case. A red LED lights on the front panel with Ultra-linear and a green one for Triode.

The rear panel carries 4, 8 and 16 Ohm loudspeaker outputs, via heavy gold plated terminals that accept bare wire, spade terminals or 4mm banana plugs. The weight of this unit is 30kgs (66.3lbs) and it's 386mm (15.2in) wide, 404mm (15.9in) deep and 203mm (8in) high.

Valve amplifiers are large and heavy. Broadly speaking, the bigger the transformers the better the sound and with both PrimaLuna units I took a deep breath and practiced my best lift technique to get them into place. They are well built, with fully welded chassis (rather than bent and unwelded), and are nicely finished too. There are no LED uplighters to add artificial glow and they're hardly needed; the rectifier heaters in particular glow fairly bright orange.

SOUND QUALITY

I paired the PrimaLunas with Quadral's new Rodan 9 floorstanding loudspeakers reviewed in this issue, as well as our in-house Martin Logan



A side-mounted rocker switch changes bias to suit EL34s, KT88s and even KT150s PrimaLuna say.

ESL-X hybrid electrostatics; both worked well.

As with our Icon Audio Stereo 30SE valve amplifier which I use mostly, the big Premium power amplifier drove both of them with aplomb. The Quadral's are well damped in the bass (reasonably dry and not bass heavy) so the low damping factor of the amplifier wasn't an issue as it can be when such amplifiers meet 'looser' speakers, I know from our own World Audio Design valve amplifiers of yore, with switchable feedback. It's not an issue for me because low feedback has aural advantage but some people get sniffy about such things. What you have to bear in mind with these units is that they are purist – and you can hear it. But

loudspeakers need to be chosen with care, most but not all being suited.

As a source I used our Oppo UDP-205 Blu-ray universal player to spin CD, as well as process hi-res digital from an Astell&Kern AK-120 portable connected optically. Loudspeaker leads were Chord Signature and as always I used an Isotek Evo 3 Mosaic regenerated power unit (and cables) to eliminate distortion (3%) and noise from our industrial mains supply.

PrimaLuna are right on the mark, with no exaggeration, when they say the sound of these units is "dark". That's the first thing that struck me when spinning the slow tempo, sparsely instrumented 'Pink Panther' theme (CD) where a laconic saxophone emerged from the dark, and decays fell back into it.

With a powerful and lush presence to the instrument and others around it, the PrimaLunas signalled strongly they were a) valve and b) very good. By that I mean well honed, with the use of quality audio resistors (Takman) and capacitors (Mundorf) that combine to give a gently pure rendition that's rarely heard in commercial amplifiers based on ordinary, everyday parts. PrimaLuna claim an "a.c. offset killer" which sounds like d.c. blocking to me,



The power amplifier remote control switches between Ultra-linear and Triode operation.



For high power, the output stage uses parallel push-pull pairs of EL34 power valves on each channel, seen at rear.



The DiaLogue Premium Preamplifier has two valve rectifiers, seen at rear.

contributes here.

The sound was different from the norm – big, lustrous and powerful. I know valve amplifiers in all their various glories but this pairing was massively impressive. The sound was so dark I ensured with measurement that there was no trickery or subtle technical cause. Bandwidth was wide at all volume settings under measurement and treble extended and powerful in listening but there wasn't a trace of glare or zing to cymbals or steel guitar strings in Neil Loffgren's 'Keith Don't Go' (CD). Instead instruments had a rich texture and were differently hued, one from another; the amplifier better conveying timbral qualities than most else.

Their full-bodied sound was underpinned by clean

yet forceful bass, obvious with Jan Akerman's 'Am I Losing You' (CD), where the bass line had great presence, stepping along with muscular imposition against that dark background. It was nice to be reminded just how good a well-honed audiophile valve amplifier can sound – smooth, powerful and dynamically engaging. I sat in front of the PrimaLunas for hours of totally involved listening pleasure, rather than a critical exercise.

Nigel Kennedy's Stradivarius had a lovely breadth of character, from resonant body to the rich, dense sound of the strings; this amplifier makes most others sound bleached in comparison. Nigel seemed to fiddle in space, as it were, as a lovely sense of atmosphere pervaded the performance supplied by ambience



Line inputs through gold plated RCA phono sockets adorn the rear panel of the preamplifier and there are twin outputs.

from the microphone.

Similarly, the Minnesota Orchestra playing 'Dance of the Tumblers' from Rimsky-Korsakov's 'The Snow Maiden' (24/96) occupied a large hall in front of me, again the surrounding acoustic captured by the microphones being conveyed down to the lowest level of detail.

CONCLUSION

Here's a preamplifier/power amplifier combination with a very different sound from most else. The PrimaLunas are classic valve amplifiers sound-wise, taken to a high plane through purist design techniques. At the same time they have big measured power and even bigger sonic strength, obviously beyond that of transistor amplifiers. Add in a deep, deep soundstage and the laconic delivery of it all and you end up with a pretty amazing product. Visually, they may not be the most arresting, but sonically they were superb I felt – a lovely combination well worth hearing if you wonder why valve amplifiers still reign supreme.



The preamplifier remote control alters volume.

MEASURED PERFORMANCE

Power output of the Premium HP power amplifier fitted with EL34 output valves measured 84 Watts in Ultra-Linear mode. In Triode mode this fell to 45 Watts. It maintained this figure right across the audio band, including bass frequencies, measurement at 40Hz showed. Damping factor was 0.8.

In both Triode and Ultra-Linear mode distortion comprised second and third harmonic components that, as usual with low feedback, stayed in reasonably steady relation to the fundamental with changing signal level. At 1kHz, 1 Watt distortion measured 0.05% in both modes. It increased steadily with signal level, measuring 0.4% just below (-1dB) full output. There was a little more distortion at high frequencies, but at 0.15% (1W, 10kHz as shown) the amount was small. As valve amplifiers go these are good results.

Frequency response was flat and wide in Ultra-Linear mode, reaching a very high 62kHz. Triode mode, with less

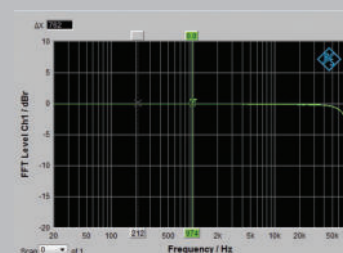
feedback, gave a slightly more curtailed response that reached 43kHz. Output was flat from these frequencies down to 7Hz (-1dB).

Input sensitivity was a normal 1V for full output and noise low at -112dB (IEC A weighted). Hum components (50,100,150Hz) were also low at 0.8mV (1mV being the upper limit).

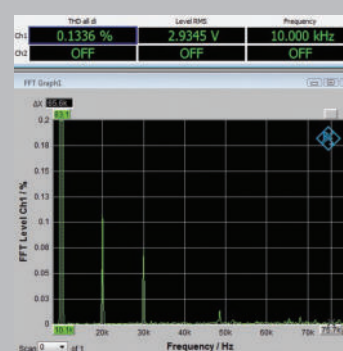
The Premium HP has good output transformers with wide bandwidth and low bass distortion. It measures well in both Ultra-Linear and Triode mode, although differences between them were not great with EL34 pentodes, except power output. **NK**

Power (8 Ohms)	84W
Frequency response (-1dB)	7Hz-62kHz
Distortion (10k, 1W, 8 Ohms)	0.15%
Sensitivity	1V
Noise	-112dB
Damping factor	0.8

FREQUENCY RESPONSE



DISTORTION



**PRIMALUNA
DIALOGUE
PREMIUM
PREAMPLIFIER**

£2,998



**PRIMALUNA
DIALOGUE
PREMIUM HP
STEREO/MONO
POWER AMPLIFIER**

£3,498



**OUTSTANDING - amongst
the best**

VERDICT

An audiophile-tuned valve amplifier with big power and an even bigger sound. Grippingly dynamic. Also, easy to use and inexpensive to run.

FOR

- big dynamics, deep silences
- Triode option
- remote volume

AGAINST

- big and heavy
- no balanced connections
- Line input only

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