

ART DUDLEY

# PrimaLuna DiaLogue Premium

## POWER AMPLIFIER



**T**he road to hell is paved with good inventions: clever ideas that appear, in hindsight, motivated more by a desire to sell clever ideas than to make musically superior products.

The DiaLogue tube amplifiers from PrimaLuna have, at their heart, a clever idea of their own: an output circuit that is user-switchable between triode operation, in which the screen grid of a tetrode or pentode power tube is defeated by means of connection to the tube's anode; and Ultralinear operation, in which the screen grid of a tetrode or pentode carries a portion of the AC music signal, supplied by a tap on the output-transformer primary, in a feedback-like effort to reduce distortion and lower output impedance. Fans of the former often report a sweeter, more *tubey* sound, while fans of the latter report a tighter, more detailed, more timbrally neutral sound. Audio

enthusiasts are given to reporting any number of things.

Here's the difference between PrimaLuna's clever invention and all of those self-centering turntable platters and "sonic hologram" generators: None of the latter really caught on in the long run, their makers having moved on to ever nuttier and more news-worthy gewgaws, while PrimaLuna's Triode/Ultralinear circuitry has endured since 2006—and has apparently succeeded in the marketplace. (The company itself got started in 2000.) It has also spread to even more products in the PrimaLuna line, the most recent being the DiaLogue Premium amplifier (\$3199), which offers 25Wpc in triode mode, 42Wpc in Ultralinear.

### Description

The PrimaLuna DiaLogue Premium has more than one clever trick up its sleeve. Flip the rocker switch on the right side of its

## SPECIFICATIONS

**Description** Push-pull stereo tube amplifier. Tube complement: six 12AU7, four EL34, KT88, or KT120. Output power: 25Wpc (14dBW) in Triode mode, 42Wpc (16.2dBW) in Ultralinear mode, with standard EL34 power tubes

(see text). Frequency range: 12Hz-75kHz. Input sensitivity for maximum power: 880mV. Input impedance: 100k ohms. Output impedances: 4, 8, 16 ohms. Signal/noise ratio: 94dB, unweighted. Total harmonic distortion: <0.1%. **Dimensions** 15.4" (395mm)

W by 8.3" (210mm) H by 16" (410mm) D. Weight: 63.8 lbs (29kg).

**Serial number of unit reviewed** 11073964.

**Price** \$3199. Approximate number of dealers: 47.

**Manufacturer** Durob Audio BV, PO Box 109, 5250 AC

Vlijmen, Netherlands. Tel: (31) 73-511-25-55. [www.primaluna.nl](http://www.primaluna.nl).

US distributor: PrimaLuna USA, 1042 North Mountain Avenue, PMB 406, Upland, CA 91786. Tel: (909) 931-0219. [www.primaluna-usa.com](http://www.primaluna-usa.com).



The PrimaLuna DiaLogue Premium, with its tube cage removed to show its six 12AU7 tubes and four stock EL34s.

chassis and this erstwhile EL34 amplifier can now accept power tubes from the KT88/KT120 family of pentodes. Flip a switch on the rear panel and this stereo amplifier is now strapped for use as a higher-powered monoblock, after which you have a choice of buying one more DiaLogue Premium or discarding one of your loudspeakers. (You know which route I'd go.) Sit back and ignore both of those switches and the DiaLogue Premium still offers: an LED-based Bad Tube Indicator system for the output tubes; a Power Transformer Protection circuit; an Output Transformer Protection circuit; and an AC Offset Killer

circuit intended to eliminate hum and promote more silent spaces between the notes. Choices!

Enduring in the DiaLogue Premium amplifier is an updated version of a design innovation that has, from day one, characterized all of PrimaLuna's amplifiers: their Adaptive AutoBias circuit. In contrast with the traditional application of the term, whereby an *auto-bias* circuit is one in which the signal grid automatically takes on a negative bias relative to the cathode simply by using a resistor to raise the latter above ground, PrimaLuna's Adaptive AutoBias keeps the cathode at or near ground, and applies to the signal grid a negative voltage that is subject to continual change, in response to amplifier demands and the aging of the power tubes.<sup>1</sup>

Back to the Triode/Ultralinear choice: In the last PrimaLuna amp I reviewed, the DiaLogue Seven monoblock (see *Stereophile*, January 2010), chief designer Herman van den Dungen and his engineering team effected that switching capability by putting two separate output transformers into each mono amplifier. Yet in a stereo amplifier such as the DiaLogue Premium, a total of five large transformers—two Ultralinear output transformers, two triode output transformers, and one sizable power transformer—would add to the product unwanted weight, bulk, and electromagnetic fields. Thus the DiaLogue Premium has only a single stereo pair of output transformers,

<sup>1</sup> In traditional audio parlance, any architecture in which signal-grid bias is supplied by a dedicated supply of negative voltage is referred to as a fixed-bias circuit, even though that voltage can and must be changed from time to time. Thus, in audio, *fixed* means *adjustable*. As Basil Fawley once observed, I'm sorry it's confusing.

## MEASUREMENTS

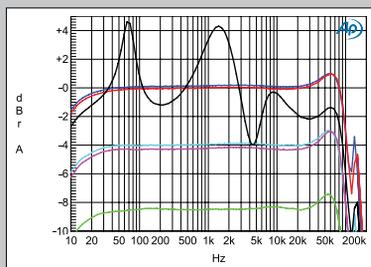
I measured the PrimaLuna DiaLogue Premium's performance using *Stereophile's* loan sample of the top-of-the-line Audio Precision SYS2722 system (see the January 2008 "As We See It" and [www.ap.com](http://www.ap.com)). With two choices of output tube, each capable of being operated in Triode (green LED) or Ultralinear (red LED) mode, and with three output-transformer taps available, the DiaLogue Premium offers 12 different ways of being used, and is therefore 12 different amplifiers in one chassis.

Because a full characterization of the behavior of each of those 12 amplifiers would have been an incredibly time-consuming procedure, I concentrated on the PrimaLuna's performance with KT120 output tubes operated in Triode mode, which was Art Dudley's preference, repeating some of the measurements in the other 11 operating conditions.

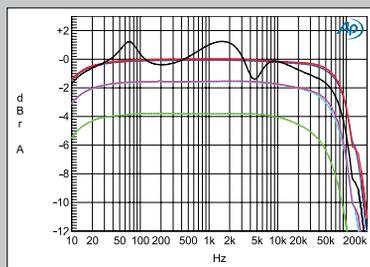
Getting the common factors out of the way first, the input impedance was very high, ranging from 81k ohms at 20Hz to 112k ohms at 20kHz, and

the amplifier was non-inverting (*ie*, preserved absolute polarity) in all 12 modes. However, the voltage gain, measured into 8 ohms, was different for all 12 modes of operation, though in no case was it particularly high, as had been conjectured by Art Dudley. The highest gain into 8 ohms was with EL34 tubes in Ultralinear mode from the 16 ohm transformer tap, at 25.6dB, a couple of dB lower than the 27dB typical of a solid-state design; the lowest gain was with Triode-connected KT120s from the 4 ohm tap, at 19.6dB. In general into 8 ohms: the 16 ohm tap was about 1dB more sensitive than the 8 ohm tap, which in turn was about 1.5dB more sensitive than the 4 ohm tap; EL34s gave about 1dB more gain than KT120s; and Ultralinear gave approximately 3dB more gain than Triode.

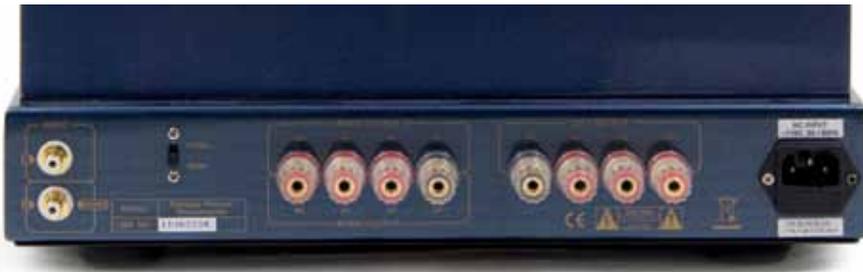
The output impedance varied widely, from an extraordinarily high 15 ohms with EL34s and 14 ohms with KT120s from the 16 ohm tap, both tubes in Ultralinear mode, to 2.4 ohms with EL34s and 2.15 ohms with KT120s, both tubes in Triode mode, from the 4 ohm



**Fig.1** PrimaLuna DiaLogue Premium, KT120s, 16 ohm tap, Ultralinear mode, frequency response at 2.83V into: simulated loudspeaker load (gray), 8 ohms (left channel blue, right red), 4 ohms (left cyan, right magenta), 2 ohms (green) (1dB/vertical div.).



**Fig.2** PrimaLuna DiaLogue Premium, KT120s, 4 ohm tap, Triode mode, frequency response at 2.83V into: simulated loudspeaker load (gray), 8 ohms (left channel blue, right red), 4 ohms (left cyan, right magenta), 2 ohms (green) (1dB/vertical div.).



The DiaLogue Premium offers separate terminals for 4-, 8-, and 16-ohm loads.

the primary sides of which are bordered by small circuit boards containing relays and transistors, presumably to reconfigure, on the fly, the various primary taps.

Indeed, small circuit boards stuffed with relays and transistors are the order of the day here—the AC Offset Killer board alone has a full dozen transistors—yet these are not in the signal path, which itself is executed with conspicuously neat point-to-point wiring and such high-quality parts as Solen capacitors, Takman resistors, and robust ceramic terminal strips. The DiaLogue Premium has three 12AU7 small-signal tubes per channel, including voltage-gain stages and a long-tailed pair of tubes for phase inversion. The power supply uses silicon devices for rectification—individual diodes for the rail, a full-wave bridge rectifier for the heaters—followed by a pi filter incorporating two large Nichicon reservoir caps and a neat proprietary choke. As I've found is typical of PrimaLuna, whose products are designed in the Netherlands and assembled in China, the build quality of the DiaLogue Premium's circuitry and casework is excellent.

### Installation and setup

One could easily go overboard writing about the PrimaLuna DiaLogue Premium: *Here's how it sounded with EL34s in triode mode, and the same tube in Ultralinear mode, and the KT88 in triode, and . . .*

Because the amp is supplied with EL34 power tetrodes as standard, that's where I started.

And because the review sample, as shipped, was set to Ultralinear mode, and because the remote handset, which controls *only* that function, arrived with a dead 2032 3V battery, and because that function can't be controlled from the amp itself. . . well, that, too, is where I started.

I enjoyed the detailed and pleasantly punchy sound of the Premium in EL34 Ultralinear mode. But when I refreshed the handset's battery and restored the Premium's switchability, I was even more impressed with the amplifier's Triode-mode performance, which, through my very sensitive Altec Valencia speakers, had a more pleasing and more "organic" bottom-to-top balance of performance, while appearing to sacrifice nothing in terms of detail or temporal accuracy.

And then, when I replaced the Premium's stock, PrimaLuna-branded EL34 tubes with the Russian-made Tung-Sol KT120s sent me, for trial, by PrimaLuna distributor Kevin Deal, I was even more impressed with those—an \$80 option at time of purchase. I also preferred to use the KT120s in Triode mode.

To confirm those impressions, I did a considerable amount of switching, back and forth, of tubes and switches.

### measurements, continued

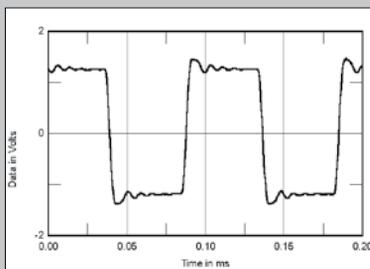
tap. The output impedance from the 8 ohm tap was lowest with both tubes in Triode mode, at 4.6 ohms (EL34s) and 3.9 ohms (KT120s). Changing to Ultralinear mode raised these impedances to 7.9 and 7.4 ohms, respectively.

With these high output impedances, the DiaLogue Premium's frequency response will be altered to a significant extent by the Ohm's law interaction between these impedances and the manner in which the loudspeaker's impedance changes with frequency. The gray trace in fig.1, for example, shows the amplifier's response with

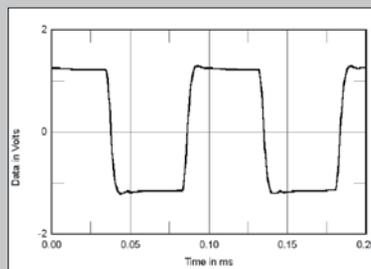
Ultralinear KT120s driving our standard simulated loudspeaker (see [www.stereophile.com/content/real-life-measurements-page-2](http://www.stereophile.com/content/real-life-measurements-page-2)). The variations are a very audible +4.5/-4dB. Even with the lowest output impedance, with KT120s in Triode mode driving the load from the 4 ohm tap, the variations are still  $\pm 1.2$ dB (fig.2), which will be audible. In both these graphs, the channels are superbly well matched, however.

Note that in Ultralinear mode (fig.1) there is a small rise in response above the audioband, with another sharp peak around 140kHz disturbing what would

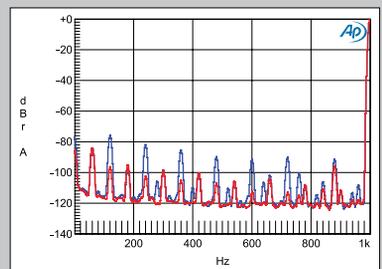
otherwise be a steep ultrasonic rolloff. In Triode mode (fig.2) the rolloff is smooth above the audioband, and the resonance at 140kHz is well damped. Correlating with this behavior in the frequency domain, the PrimaLuna's reproduction of a 10kHz squarewave (fig.3) showed some mild overshoot and four cycles of ringing. By contrast, in Triode mode (fig.4), though there was still a very slight degree of overshoot, there was no ringing. The flat tops on these and the 1kHz squarewaves (not shown) correlate with the amplifier's extended low-frequency response. The DiaLogue Premium uses well-engineered



**Fig.3** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Ultralinear mode, small-signal 10kHz squarewave into 8 ohms.



**Fig.4** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Triode mode, small-signal 10kHz squarewave into 8 ohms.



**Fig.5** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Triode mode, spectrum of 1kHz sine wave, DC-1kHz, at 1W into 8 ohms (linear frequency scale).

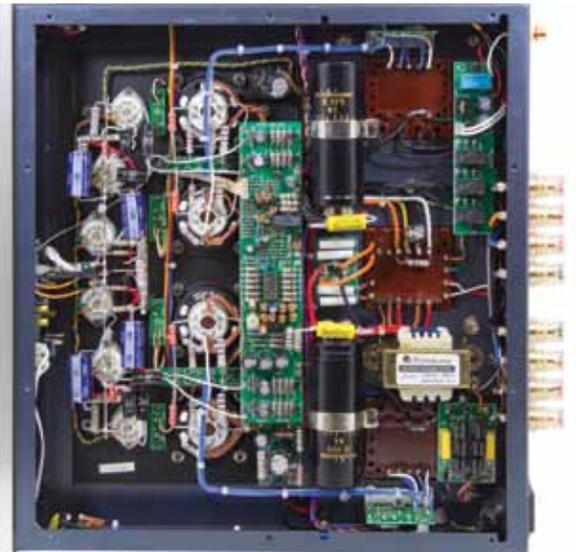
And there came a day when I discovered that I'd spent a few hours listening with KT120 power pentodes, but with the tube-selector switch—which controls bias voltage—set for EL34. After making the correction, I noticed that not only was the switch's effect subtle, but that I actually enjoyed the sound of the KT120 tubes set for EL34 bias.

Curious, I opened up the DiaLogue Premium and made a few cursory measurements, at which time I discovered that the position of the selector switch makes a difference of less than 2V for the same tube: -54.6V when set for KT120s *vs* -56.4V when set for EL34s. (I suppose one might see more or less of a voltage difference when changes in switch position are accompanied by changes in power tubes, given that different tubes can draw different amounts of current.)

Be that as it may: The reader should note that all of the listening observations that follow were based on the DiaLogue Premium used with KT120 power tubes operating in Triode mode, with the tube-selector switch set for KT88/KT120.

A couple of notes regarding the making of loudspeaker connections: According to Kevin Deal, the DiaLogue Premium does not invert absolute signal polarity. I listened for that anyway, and found that, for whatever reason—perhaps nothing more than my choices of music?—this was one of those amplifiers through which changes in polarity were exceedingly difficult to hear. I also experimented with different loudspeaker-output taps. The DiaLogue Premium offers separate terminals for 4, 8, and 16 ohms; although I relied on the 16-ohm terminals for my 16-ohm Altecs, their sound from the 8-ohm taps was also appealing—and, at times, seemed actually to provide a somewhat larger sense of scale. Choices!

One final (I promise) note: Although a specification isn't



A look inside the DiaLogue Premium.

given, the PrimaLuna DiaLogue Premium appeared, in my system, to offer gain so much higher than the norm that I was forced to use my Shindo Laboratory Masseto preamplifier, itself no gain slouch, with its volume control set near the bottom of its range—and the bottom of the range of most stereo potentiometers is not known for good channel-to-channel tracking. During my listening, I did note that the left channel seemed slightly louder than the right, but I attributed that to the

## measurements, continued

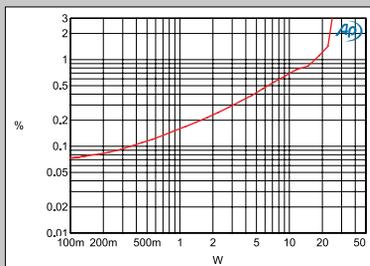
output transformers.

Channel separation was good, at around 80dB in both directions at 1kHz, but decreased to 57dB (L-R) and 62dB (R-L) at the top of the audioband. The wideband, unweighted signal/noise ratio, measured with the input shorted and with the KT120s in Triode mode driving 8 ohms from the 8 ohm tap, was an okay 77.3dB. The S/N ratio decreased by around 4dB in Ultralinear mode, due to the higher gain, while A-weighting the measurement gave an excellent 98dB Triode and 93.6dB Ultralinear. A-weight-

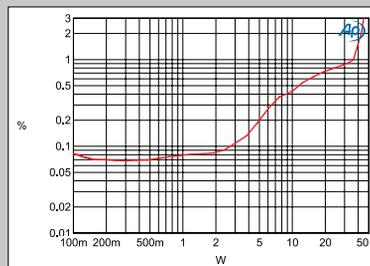
ing reduces the effect of noise at low and high frequencies on the measured ratio; the improvement I found when A-weighting the measurement was due to the fact that the PrimaLuna's noise floor is contaminated by spurious at 60Hz and its odd-order harmonics, which will likely be due to magnetic interference from the AC transformer; and at 120Hz and its harmonics, which will be due to electrical interference. Fig.5 reveals that the 120Hz-related spurious are higher in the left channel (blue trace), but that all the spurious are relatively low in level (in this

graph, 0dB is 1W into 8 ohms). Certainly, AD didn't remark on being aware of any noise or hum problems, even with his very sensitive loudspeakers.

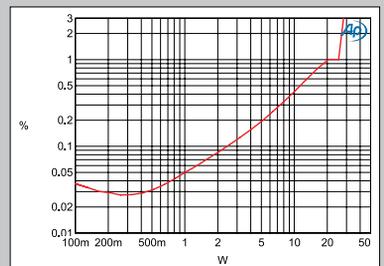
With EL34s set to the correct bias, and measured with both channels driven from the 8 ohm tap into 8 ohms, the DiaLogue Premium met its specified power of 25Wpc (14dBW) in Triode mode and 42W (16.2dBW) in Ultralinear mode at 3% THD, with Triode (fig.6) offering slightly more distortion at low levels than Ultralinear (fig.7). With KT120s set to the



**Fig.6** PrimaLuna DiaLogue Premium, EL34s, 8 ohm tap, Triode mode, distortion (%) vs 1kHz continuous output power into 8 ohms.



**Fig.7** PrimaLuna DiaLogue Premium, EL34s, 8 ohm tap, Ultralinear mode, distortion (%) vs 1kHz continuous output power into 8 ohms.



**Fig.8** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Triode mode, distortion (%) vs 1kHz continuous output power into 8 ohms.

preamp's volume pot; in the event the amp was also at fault, that will show up in John Atkinson's measurements.

### Listening

After a longer-than-average running-in—itself occasioned by the rediscovery, behind the television set, of the remote handset for my Sony SACD/CD player, thus enabling me to once again use the SCD-777's Repeat function—I began my more intensive listening with simple music: the wonderful-sounding, monophonic *A Collection of Favorites by the Carter Family* (LP, Stetson HAT 3022); the eponymous, brilliant, groundbreaking, and artistically audacious if sonically brittle debut album of Loudon Wainwright III (LP, Atlantic SD 8260); the grainy but otherwise okay-sounding *Teaser and the Firecat*, by Cat Stevens (LP, Island ILPS9154); and various selections from the Nick Drake catalog, on Island and Hannibal. All sounded fine through the PrimaLuna DiaLogue Premium, with appropriate scale and believable vocal and instrumental timbres. But the Carter Family album was served best of all. Here, the DiaLogue Premium impressed me by nailing the distinctive and historically influential sound of guitarist Maybelle Carter's pick attack, not to mention the charmingly unaffected (and at times downright flat) sound of her voice.

That said, the DiaLogue Premium was at its best with music of size, scale, drama, and complexity: It was, indeed, a bigger-

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is-better kind of amplifier. The PrimaLuna amazed and delighted me throughout the good if not quite top-shelf recording of Wagner's *Das Rheingold*, recorded in 1993 by Christoph von Dohnányi, the Cleveland Orchestra, and a cast whose greatest standout was Peter Schreier's Mime (2 CDs, Decca 443 690-2). Besides allowing the music to retain an appropriate sense of scale, and endowing everything from plucked strings to violently hammered anvils with a believable sense of force, the PrimaLuna amp allowed voices to sound unusually warm and present, while at the same time reproducing nuances of pitch and inflection with uncommonly good clarity.

A welcome letter from reader Milo Shepherdson reminded me how much I enjoy Ike Quebec's *Soul Samba* (Blue Note/Classic ST-84114)—and how I botched my reference to it in the November 2013 "Listening," imagining a piano where there is none. In fact, it was during this casual bit of listening that the excellence of the DiaLogue Premium really dawned on me. The amp gave my Shindo Corton-Charlemagne monoblocks a real run for their money on every track of this record, the PrimaLuna caressing each number with a very full and rich yet musically detailed and explicit presentation. Quebec's tenor-sax tone was perfect and big, yet the PrimaLuna thought the real star was guitarist Kenny Burrell, whose solos it presented with an exceptional, world-class touch: I have never heard his playing, or indeed this album in its entirety, sound better.

The recording by the Ensemble de Solistes des Concerts Lamoureux of Darius Milhaud's *Les Quatre Saisons*, led by the composer (LP, Philips 6504 111), is perhaps one of the best-sounding LPs in my collection: open, clear, and dramatic, with good tonal balance, realistically weighty bass, and remarkable

### measurements, continued

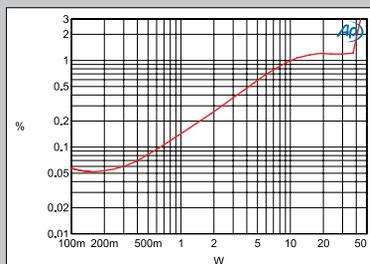
correct bias, and again looking at the 8 ohm tap driving 8 ohms with both channels driven, Triode mode (fig.8) offered superbly low distortion below a few watts, and the amplifier delivered the specified 25Wpc at 1% THD.

With Ultralinear and KT120s (fig.9), low-level distortion was now a little higher than in Triode, though still low in absolute terms, and the amplifier met its specified power of 42Wpc at 2% THD. In general, the PrimaLuna's output tap needs to be matched to the loudspeaker's impedance to obtain the

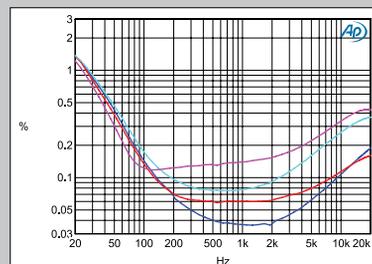
specified power, a mismatch in either direction reducing the maximum power and, when the load is lower than the tap impedance, increasing the low-level distortion.

Fig.10 shows how the DiaLogue Premium's percentage of THD+noise changes with frequency in the best case: Triode-connected KT120s from the 4 ohm tap into 8 ohms (blue and red traces) and 4 ohms (cyan and magenta). The rise into both loads from both channels is due to the output transformer's core starting to saturate;

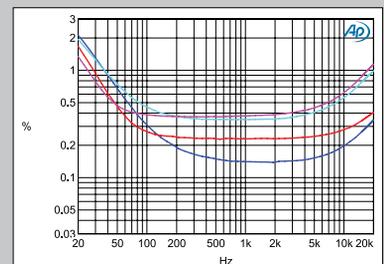
the rise at high frequencies is due to the circuit's restricted open-loop bandwidth reducing the amount of negative feedback available. But the rises in THD at the frequency extremes are relatively mild, and the left-channel distortion (blue and cyan traces) is commendably low in the midrange, especially when the 4 ohm tap drives 8 ohms (blue). The right channel (red and magenta) is a little less linear overall. The THD rises a little when the 8 ohm tap is used to drive 8 ohms in Triode mode (not shown), and rises



**Fig.9** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Ultralinear mode, distortion (%) vs 1kHz continuous output power into 8 ohms.



**Fig.10** PrimaLuna DiaLogue Premium, KT120s, 4 ohm tap, Triode mode, THD+N (%) vs frequency at 2.83V into: 8 ohms (left channel blue, right red), 4 ohms (left cyan, right magenta).



**Fig.11** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Ultralinear mode, THD+N (%) vs frequency at 2.83V into: 8 ohms (left channel blue, right red), 4 ohms (left cyan, right magenta).

image depth; it is also a recording of sublimely melodic yet unmistakably modern—at times, somewhat angular—music. The PrimaLuna honored every one of those aspects. The entrance, in the first movement—*Printemps*, of course—of the double bass was reproduced with virtually peerless tension and impact, and believable note attacks and decays. Strings had realistic bite and not a sliver more, and the PrimaLuna amp endowed—or, if you wish, allowed—strings of notes to have a very believable, engaging sense of momentum and flow.

During the PrimaLuna's time in my system, I also made note of its performance on those many records that fall short of the sonic ideal. In every such case, the DiaLogue Premium let those recordings retain their characteristic signatures—dark sounded dark, bright sounded bright, and so forth—while reproducing them with all due melodic and rhythmic realism. One example was Joanna Newsom's sort-of-live album from 2007, *Joanna Newsom and the Ys Street Band* (EP, Drag City DC336), an unrepentantly shouty and overly forward recording that's also frustratingly murky: frustrating because these rearrangements—for musical saw, tambura, accordion, and drums, alongside Newsom's usual harp—of mostly familiar Newsom songs are quite engaging on those occasions when the musical details emerge above the sonic mud and glare.

As with the above-mentioned Carter Family collection, the PrimaLuna did a consistently fine job of capturing the solidity, substance, and impact of every great mono recording I played through it. The most notable example came one evening as I worked my way through the 1963 boxed set *Wilhelm Furtwängler: In Memoriam* (LP, Deutsche Grammophon KL.27/31). Although I have yet to experience all of Furt-

## ASSOCIATED EQUIPMENT

**Analog Sources** Garrard 301, Thorens TD 124 turntables; EMT 997, Thomas Schick tonearms; EMT OFD 25 & OFD 65, TSD 15 70th Anniversary pickup heads.

**Digital Sources** Wavelength Proton, AudioQuest DragonFly USB D/A converters; Apple iMac G5 computer running Apple iTunes v.11.0, Decibel v.1.2.11 playback softwares; Sony SCD-777ES SACD/CD player.

**Preamplification** Hommage T2 step-up transformer, Shindo Laboratory Vosne-Romanee & Masseto preamplifiers. Power Amplifiers Shindo Laboratory Corton-Charlemagne & Cortese, Fi 421A.

**Loudspeakers** Altec Valencia.

**Cables** USB: AudioQuest Carbon, Nordost Blue Heaven. Interconnect (single-ended): Audio Note AN-Vx, Shindo Laboratory Silver. Speaker: Auditorium 23.

**Accessories** Box Furniture Company D3S rack under source & amplification components; Keith Monks record-cleaning machine.—Art Dudley

wängler's recordings, it seems he was seldom truly well served by sound engineers, making all the more conspicuous his few really great-sounding sessions—including his 1953 performance, with the Berlin Philharmonic and soloist Wolfgang Schneiderhan, of the Beethoven Violin Concerto. To hear it through the PrimaLuna was to hear a superb amplifier magnify and exploit the strengths of a transcendent music recording. Nor was the DiaLogue Premium immune to the tactile, substantial, richly

### measurements, continued

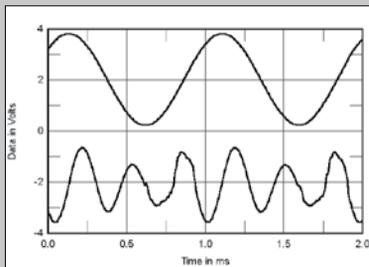
more when the output mode of operation is switched to Ultralinear (fig.11).

Fortunately, the distortion is predominantly low-order in nature, even at a higher level in Ultralinear mode (fig.12). At low frequencies, the second harmonic is highest in level, followed by the third, then by a regular series of higher-order harmonics (fig.13), thought these are all at or below -66dB (0.05%). This graph was taken in Triode mode with KT120s; the distortion signature was very similar in Ultralinear mode (not shown), though

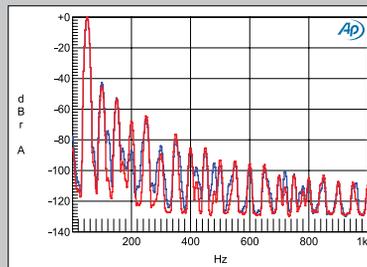
with the third harmonic now almost as high in level as the second. Intermodulation distortion with Triode-connected KT120s (fig.14) was typical for a tubed design, with the second-order difference product resulting from an equal mix of 19 and 20kHz tones lying at -64dB (0.06%), and the higher-order products at 18 and 21kHz lying at -60dB (0.1%). This actually is pretty respectable performance on this test. In Ultralinear mode with KT120s at the same power level, the 1kHz product rose to -59dB,

but the 18 and 21kHz tones rose to -52dB (0.25%) (not shown).

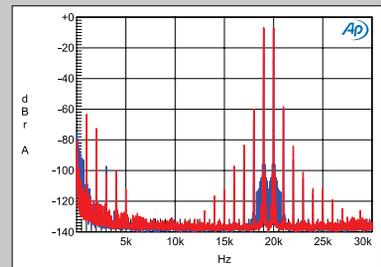
As AD found in his auditioning, the PrimaLuna DiaLogue Premium performs at its best with KT120 output tubes operated in Triode mode. However, that high output impedance, and the rise in distortion when the load impedance drops below the nominal output-transformer tap value, will make careful matching with the user's loudspeakers mandatory to get the best sound from this well-made amplifier.—John Atkinson



**Fig.12** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Ultralinear mode, 1kHz waveform at 4W into 4 ohms (top), 0.48% THD+N; distortion and noise waveform with fundamental notched out (bottom, not to scale).



**Fig.13** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Triode mode, spectrum of 50Hz sine wave, DC-1kHz, at 5W into 8 ohms (linear frequency scale).



**Fig.14** PrimaLuna DiaLogue Premium, KT120s, 8 ohm tap, Triode mode, HF intermodulation spectrum, DC-30kHz, 19+20kHz at 5W peak into 8 ohms (linear frequency scale).

colorful charms of my favorite 78s, including Suite 2 from Prokofiev's *Romeo and Juliet*, lustily played by the Moscow State Philharmonic Orchestra and conducted by the composer (shellac, Disc Company of America<sup>2</sup> 754); and the *Prelude* to Wagner's *Parsifal*, performed by Serge Koussevitsky and the Boston Symphony Orchestra (shellac, RCA DM 1198).

Perhaps best of all, the DiaLogue Premium played rock'n'roll without compressing, cleaning, or de-balling it, while also preserving the color and texture that virtually all music has and deserves to keep. During its time here, the DiaLogue Premium played records by the Replacements, the Flamin' Groovies, Big Star, Guided by Voices, and sundry others—all on vinyl. All sounded amazing, none more so than the New York Dolls' *Too Much Too Soon* (LP, Mercury SRM-1-1001), which is, in its way, one of the rawest post-'50s rock records I know: When it's guitar-solo time, lead player Johnny Thunders simply turns up his guitar—sometimes a little too much, sometimes not quite enough, with no effort to cheesily smooth these transitions. The Dolls play Sonny Boy Williamson's "Don't Start Me Talkin'" brilliantly and loudly—so loudly that the piano player has to pound to be heard—and scarcely manages that, just as in a live setting. And the drums and electric bass hit hard—*very* hard—in the most wonderful way. The PrimaLuna captured and preserved it all.

### Conclusions

I tried to find fault with the PrimaLuna DiaLogue Premium.

<sup>2</sup> The label founded by Moses Asch before he began the Folkways Records & Service Co., in 1948, the Disc Company of America declared bankruptcy in 1947.

I failed. In particular, I tried to detect some mechanical or otherwise non-natural, non-organic quality to its sound, given the preponderance of switches and silicon inside its good-looking casework. I failed at that, too.

I've had the pleasure of reviewing some remarkable amplifiers in the past few years. In many respects, the DiaLogue Premium, though far from the most expensive, is among the four or five

**A very strongly recommended amplifier, and at \$3199, a hell of a good value.**

most enjoyable. It didn't have the crazy-good clarity and presence of the Lamm ML2.2 (\$37,290/pair), or the color and richness of the Shindo Laboratory D'Yquem (\$25,000), or the sheer temporal grip and momentum of the Ayre Acoustics AX-5 (\$9995). But once I hit on the right configuration, as described above, the DiaLogue Premium consistently

delighted me. And, if memory serves, it exceeded in that regard the more expensive DiaLogue Seven.

... and the *choices*! Given especially that the PrimaLuna's sheer switchability came with no apparent sonic penalties, I can't imagine the user who would not be pleased by its uncommon level of flexibility. With no combination of settings did the DiaLogue Premium make a shouty recording sound like a sweet one, or a digital recording sound like an analog one—but it *did* offer a few different perspectives on the same beautiful, realistic truth. A very strongly recommended amplifier, and at \$3199, a hell of a good value. ■