

Equipment Report



PrimaLuna DiaLogue Premium Preamp and HP Stereo/Mono Amplifiers

Tube Audio Made Simple

Greg Weaver

When Kevin Deal, of Upscale Audio in California, and Herman van den Dungen, of Durob Audio in the Netherlands, both audio importers and distributors, started collaborating in the late 1990s, they found that they shared a common concern. They both felt the existing tube component market was plagued by too many examples of high-priced, poorly built entrants of questionable reliability, and that when presented with such uninspired choices, more and more music lovers would forgo the joys of listening to and owning tube gear.

With classic designs like the Marantz 8B or Dynaco ST-70 in mind, they felt that music lovers should have better access to gear that drove tubes with reduced distortions and extended tube life and reliability. Ideally, these designs would use point-to-point wiring, and offer strategic features (such as PrimaLuna's AC Offset Killer and Adaptive AutoBias) to further extend the lifespan and performance of the tubes in the system. The biggest gains would be dependability, ease of use, and the enhanced sonic properties such a design would afford. Overall, they wanted to create tube products that offered an enhanced user experience. So over the course of about three years, starting in 2000, they joined forces to start PrimaLuna, with these goals in mind.

You may read more about their efforts in Jim Hannon's engaging and entertaining section of *The Absolute Sound's Illustrated*

History of High-End Audio, Volume 2: Electronics. The short version is that after some three years of preparation, planning, and development, in 2003 PrimaLuna became a reality with the introduction of the ProLogue series of components to the European market. Its initial success led to wider distribution, and to the creation of the DiaLogue series of components in 2006. It is the current flagship products in that DiaLogue line that are the subject of this review.

Creation

One of the many methods brought to bear to realize the PrimaLuna vision included manufacture in China. While others have tried this with limited success, PrimaLuna has effectively leveraged the reduced costs of overseas production by paying fanatical attention to quality control, with constant parts-sourcing monitoring and rigorous adherence to the manufacturing rules Kevin and Herman put in place and stringently enforce. This excessive oversight, continuously and methodically applied, seems to have had its desired effects.

Next, rather than hire a full-time design team, they decided it would be much more cost-effective to contract designers from other successful houses. As such, their designs are primarily the work of Marcel Croese, who was Chief Engineer at Goldmund in Switzerland. However, Herman also has added two more engineers to the design team.

Both the Premium preamp (\$3199) and HP amplifiers (\$3899 stereo, \$3899/

each monoblocks) share an identical dark metallic grey chassis, 15" wide, by 8.3" tall, by 14.2" deep. Using the same-sized chassis is a smart production move, reducing waste and duplicated efforts. The HP amps weigh in at just over 66 pounds each, while the Premium preamp tips the scales at a substantial 53 pounds. The results are particularly sturdy components, surprisingly more massive than you would expect at a mere glance.

The lower 3½" of each chassis is allotted to the circuitry, with a 3/8"-thick front panel (available in silver or black) accommodating controls. There is a rocker power switch on the front of the left side panel; all the jacks and the AC connection are on the rear. The upper rear section, roughly 4¾" tall, 5½" deep, and the full 15" wide, houses the transformers under a slot-vented enclosure. Finally, the upper front section is open, housing the respective tube complement, protected by a unique black curved guard employing two arched rectangular pillars that flow from the front top of the transformer housing to the top of the front of the chassis just behind the faceplate, with round cross bars running left to right between them, and glass end covers. The whole look is more than just vaguely reminiscent of a "roll-top" desk.

The DiaLogue Premium preamplifier is a dual-mono, tube-rectified lineage, using a pair of 5AR4 rectifiers, and three 12AU7s per channel (one driver, two inputs in a conspicuous attempt at lowering distortion and increasing dynamic range and band-

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Specs & Pricing

PrimaLuna DiaLogue Premium Preamplifier

Tube complement: Six 12AU7, two 5AR4

Analog inputs: Five pairs RCA, one pair HT bypass

Outputs: Two pair RCA preamp outs, one pair RCA fixed tape out

Dimensions: 15" x 8.3" x 14.2"

Weight: 52.9 lbs.

Price: \$3199

PrimaLuna DiaLogue Premium HP Stereo/Mono Amplifiers

Output power: Stereo, 70Wpc (ultralinear)/40Wpc (triode); mono, 148 watts (ultralinear)/85 watts (triode)

Tube complement: Six 12AU7, eight EL34

Inputs: One pair RCA

Output impedance: 100k ohms

Dimensions: 15" x 8.3" x 14.2"

Weight: 66.3 lbs.

Price: \$3899 ea., \$7798/pr.

PRIMALUNA USA

2058 Wright Ave.
La Verne, CA 91750
(909) 931-0219
(844) LUV-HIFI
primaluna-usa.com
info@primaluna-usa.com

Associated Equipment

Analog source: Kronos Sparta turntable and Helena tonearm, Air Tight PC-1 cartridge

Digital sources: Dell Optiplex running JRiver MC-22 and Fidelizer Pro v7, Hegel HD30 DAC, McCormack UDP-1 Ultimate universal disc player

Phonostages: DSA Phono II, ModWright PH-150 Reference

Preamplifiers: DSA Pre 1, Pass Labs XP-20, ModWright LS-100

Power amplifiers: Pass Labs XA160.8 monos

Speakers: Von Schweikert Audio VR-55 Aktive

Cables: Stealth Šakra and Audience Au24 SX signal cables, Stealth Dream V14 speaker cables, Audience Au24-SX biwires, Audience Au24 USB, Audience Au24 powerChords.

A/C Power: One 15-amp and one 20-amp dedicated line, Audience aR12-TS-SOX power Conditioners

Isolation system: Grand Prix Audio Monaco equipment stand and amp stands, Magico QPods

Room treatments: Shakti Hallographs, Room Tunes Corner Tunes

completed using premium sealed Fujitsu relays, rear-mounted and very proximate to the input jacks. When an input is selected, only that particular relay closes. As all the other relays are left open, this quite effectively isolates noise and signals from other sources. An additional benefit of this choice is drastically shorter signal paths, further minimizing pick up of radiated or generated noise.

The preamp's front panel offers the volume control to the far left side, a centered status indicator LED (red for standby, green for ready) with a mute indicator just above it, and a rotary source selector switch to the right. The back houses, from left to right, a set of tape (monitor) outputs, five sets of inputs (CD, Tuner, Aux1, Aux2, and Aux3), and two sets of amplifier outputs, all single-ended. There are no provisions for XLR connections. To the right side is a grounding post and the EIC AC socket.

The remote is a 19-button, 7 $\frac{7}{8}$ " long, 2 $\frac{3}{8}$ " wide, 13/16" high black rectangle, with rounded sides. Besides volume control, mute, and direct input selection, it includes function control for the PrimaLuna CD player, and a button for on-the-fly switching of the amplifiers between ultralinear and triode modes. Unique in my experience, two black rubber O-rings circle the remote, one each near the very top and bottom, seated into channels recessed into the chassis itself, assuring that the remote will not be scratched by, nor easily slide off, any surface that it is placed upon. Nice touch.

Both the DiaLogue Premium preamp and the HP power amps use a heavy-gauge slotted bottom panel to allow ready airflow into the fully ventilated, panel-mounted tube sockets. The choice of tube sockets and panel mounts as well as the point-to-point solder work are very good, quite reminiscent of that found in costlier designs. Circuits are populated with French-made audiophile-grade DuRoche and SCR tin-foil capacitors, and Japanese TAKMAN resistors. Swiss-made, silver-plated, continuous-crystal, oxygen-free copper wire, with Teflon dielectric, is used in all critical signal paths. The power and output transformers are massive custom toroidals, rated for 200% of their duty cycle, and are potted to protect the windings from moisture and deterioration.

The front of the Premium HP power amplifiers shares the livery of the preamp, and sports only the power/standby lamp dead center, flanked by two additional indicator lamps, red to the right to indicate ultralinear mode, green to the left for triode mode. While the amps also have their power switches at the front of the left side panel, they also include a tube-type selection switch (down for EL34s, up for KT varieties) at the front of the right side panel. The back panel includes, left to right, single-ended inputs (again, no XLR connections), a stereo/mono toggle switch, followed by the right (also used for mono) then left speaker outputs, with 16-ohm, 8-ohm, 4-ohm, and ground binding posts, then the IEC socket. Each amp comes with its own narrow (7 $\frac{7}{8}$ " long, 1 $\frac{1}{4}$ " wide, 13/16" high), rounded side, single button remote, also equipped with twin rubber O-rings, allowing for mode switching.

The Premium HP amplifiers use a set of eight EL34s, arranged in two rows of four, directly in front of the transformer

width), all arranged in a slight arc under the tube guard. Finally, in a row immediately behind the 12AU7 array are the two rectification 5AR4s flanked by a set of Nichicon 330 microFarad capacitors. Very attractive, functional, and easy to access.

The choice of the 12AU7 seemed obvious, with more in current production today

than virtually any other tube made, as well as significant stockpiles of vintage NOS varieties. The owner's manual touts that you may substitute ECC82s, ECC802Ss, E82C-Cs, 5814s, 6189s, or even CV4003s.

The volume control is a Japanese-built, high-quality, Alps Blue Velvet potentiometer, with input selection ac-

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compartment. Two sets of four red LEDs, part of the BTI system (read on), are oriented in a square in the space created at the center of the four EL34s on the right, the other set for the quad to the left. These LEDs are numbered to match the tubes, and indicate when a tube is failing, or has failed. The system will mute itself until you replace the bad tube, then restart. In front of the EL34 complement is a row of 12AU7s, also in a slightly curved alignment as with the Premium preamp. Honestly, to my tastes, these are some extremely good-looking designs.

The EL34 is a classic pentode with five elements (cathode, anode, and three grids). First introduced in 1953, it is generally lauded for its mid-range tonal properties. Its use in such classic amplifiers as Saul Marantz's Models 5 and 9 monos and Sid Smith's Marantz 8B stereo, and David Hafler's Dynaco ST-70. The Conrad-Johnson MV55 and MV60 are most likely what inspired its use here. One of the first things you notice, even before powering on, is that all the tubes are PrimaLuna-branded. In conversation with Kevin I learned that these tubes are sourced from Shuguang, giving PrimaLuna the option of careful selection, and allowing them yet another layer of quality control.

As to features, the PrimaLuna Premium HP amps in particular are second to none in my experience at, or anywhere near, their price points. As already stated, their output circuits can be switched *on-the-fly* between 40 watts (triode) or 70 watts (ultralinear) in stereo mode,

or between 85 watts (triode) or 148 watts (ultralinear) in mono configuration, as reviewed here. Ultralinear output is about 3dB louder than triode mode—something that should be kept in mind when doing live mode-switching.

Maybe most interesting of all is that, though the HP power amp, as equipped from the factory, runs EL34s, in that same switch position you *can* run 6CA7s, EL34s or EL34Ls. And, if you are all right with a slight drop in output, you can even run 6L6GCs, 7581As, or KT66s. With the switch in the KT position, you may use 6550s, KT88s, KT90s, KT120s, or KT150s, should you care to! Though I had no store of other power tubes on hand to explore those options, the HP amplifiers are obviously a tube-rollers delight.

A big part of the PrimaLuna amplifier technology (and sales pitch) is something they call Adaptive AutoBias. Essentially, PrimaLuna claims it is an entirely passive process allowing tubes to run less stressfully, with greatly reduced distortion, yielding longer life and affording some large degree of safety and convenience. This circuit constantly monitors tube operation to sense when a tube is failing or has failed, at which point, it both mutes the circuit, protecting the amplifier from damage, and lights an LED indicator, notifying you of just which tube is affected. This eliminates the guesswork of swapping tubes one at a time to locate the culprit.

Though the Premium HP amplifier manual claims the Adaptive AutoBias circuit is, “an exclusive PrimaLuna fea-

ture you won't find anywhere at any price,” PrimaLuna's sister company Mystere, (also run by Herman) uses the same circuit. Further, Kevin Hayes' Valve Amplification Company's (VAC) employs his unique patented iQ Continuous Automatic Bias System throughout his entire amplifier line.

PrimaLuna employs a number of other technologies, including Soft-Start, used in conjunction with the Adaptive AutoBias circuit to slowly bring the amplifier up to full power. Another, called AC Offset Killer, utilized in both the preamp and amplifiers, is said to remove problems that may occur in your AC mains before power gets into the circuits and to keep the main AC power transformer as quiet as possible. There is also the aforementioned BTI (Bad Tube Indicator), which lights a red LED on the chassis to indicate which tube is experiencing any degree of failure. Finally, there are PTP (Power Transformer Protection) and OTP (Output Transformer Protection). In the event that the power transformer's internal temperature becomes too high, PTP uses a thermal switch to cut off the main AC input. With OTP, the transformers are protected from improper loads during hook-up or under play, or while changing speakers with the power turned on.

I must mention that packaging is every bit as exquisite as the components' fit and finish. Triple-boxed, in custom-formed foam, with individual sleeves covering the power tubes and a set of white cotton gloves included for handling, these things couldn't be packaged any better or more safely.

Communication

As one of my strongest axioms is “change only one item (component, cable, isolation device, etc.) at a time,” when my review samples arrived, I installed the amps in place of my Pass Labs XA160.8 monos, switched them into mono mode, and connected them to my VSA VR-55 Aktives, with the rest of my reference system intact. However, so as not to squander break-in time, I also installed the Premium preamp into my theater system and ran it consistently there.

Immediately apparent on insertion of the HP amplifiers, using the 8-ohm taps, was the signature EL34 midrange performance. Bass was a bit cold and constricted, both in extension and impact, and treble was a bit soft and muted, not at all atypical for brand-new amplifiers, but it was pretty clear that this ride was going to be fun. Just to be sure I wasn't missing some unexpected magic, I tried brief connections to both the 4-ohm and 16-ohm taps after run-in. But the slight midrange emphasis with the 4-ohm tap further exacerbated the slight bass leanness. As I really heard no advantage or detriment with the 16-ohm tap, I settled on the 8-ohm tap for the bulk of the review. (Note that when operating as a monoblock, the taps are marked as 2, 4, and 8 ohms.)

Making the choice between ultralinear or triode mode will be as much (if not more of) a matter of your loudspeaker choice as it is of personal taste or the music in play. While you may be tempted to use ultralinear for louder listening and triode for lower volumes, over the years I've found that more often than not, at quieter volume settings, ultralinear provides the extra dynamics and inner resolution that are necessary to breathe life

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What I'm Listening To



Hamilton - Original Broadway Cast recording
Contemporary music, creative and riveting storytelling, and a very good recording conflate to make this tale of one of America's Founding Fathers a sensational listen. The language is often strong, so...don't play it with the children in the room.

into a softer presentation.

My Von Schweikert Audio VR-55 Actives have a comparatively low 88dB sensitivity, but present a fairly stable 8-ohm load, making them relatively easy to drive. With them, the added warmth, more pronounced midband, more laid-back presentation, and somewhat less focused and slightly larger-than-life imaging in triode mode simply couldn't match the more controlled and accurate microdynamics and higher resolution of inner detail that I experienced in ultralinear mode. Though triode mode offered a lush, more organic balance overall, for me, in my system, it wasn't even close. Once that became clear over repeated comparisons, I kept the amps in ultralinear mode for the rest of the review. Your experience will likely vary, so take advantage of the freedom of choice and experiment.

Once fully run in, (I gave them a full two weeks in this case), high-frequency perfor-

mance opened up considerably, now offering greater and more refined extension and providing a more convincing sense of air and shimmer on cymbals, upper-octave strings, and winds. This attribute was readily noticeable on classical pieces like the Bach Violin Concertos and Double Concertos [Philips] or *The Three-Cornered Hat* [London].

Midrange was rendered, as you'd expect, with almost reach-out-and-touch texture, rich and vibrant tone color, realistic bloom, and a faithful sense of dimensionality and space. In this regard, these PrimaLunas are the embodiment of the characteristics that make valve amplification so intoxicating.

It was the deepest octave-and-a-half, roughly from about 65Hz down, that enjoyed the greatest sonic advance. The slight limitation that the HPs had exhibited when new all but vanished, and their response, all the way down into the 20Hz range, was much better defined. They now had a much firmer, more effectual grip on the deepest bass, giving them an amazing sense of graceful power.

This was clearly exemplified early in "Three Wishes," from Roger Waters' *Amused to Death* [Analogue Productions]. As the track picks up momentum, the QSound voice of a Genie fills the room—surrounding and engulfing you. And it goes deep! Still fresh from the boxes, that voice was generated only toward the front of the room, with very little of the powerful underpinning that makes it so creepy. Post run-in, the envelopment was much more complete, easily

extending to behind my listening chair. And the weight of the voice was back, convincingly enough to make me shudder, as this track normally does. The recording evokes a visceral reaction, one that the Premium HP amplifiers were quite comfortable generating.

With something like the organ work from the second movement of Saint-Saëns Symphony No. 3 [Reference Recordings], the PrimaLunas had more than enough authority to convincingly create the power that loads the room with the lowest, sustained organ notes. Though still not as authoritative as the best solid-state bass, they were, nonetheless, very well extended and articulate, showing remarkable transient capability and excellent pitch definition, especially for a tube amp in this price range.

Though overall transparency was not astonishingly see-through (the amps do come up shy of the best resolution and transparency attainable), the HPs' ability to render fine detail was more than merely convincing. Key-fingering on instruments like sax or clarinet was revealed cleanly and accurately. While you might be tempted to assume that such sounds would always be clearly and honestly rendered, such micro-detail is not always this finely presented.

What I found to be the HPs' most remarkable strength was their ability to render dynamic attack and maintain scaling, from very quiet through much more boisterous volume settings. Respighi's *Feste Romane/The Pines of Rome*, with Lorin Maazel conducting the Cleveland Orchestra [Mobile Fidelity UHQR], was goosebump-raising—so powerfully, cleanly, and accurately did the HPs reproduce orchestral dynamic swings. This extraordinary dynamic capability is yet another stirring asset of these amplifiers.

Spatial recreation was downright magical, especially when I was listening to something with an enormous and/or clearly delineated acoustic, like Falla's *The Three-Cornered Hat* or *Harp Attack* [Alligator LCD 4790]. The soundscape on *The Three-Cornered Hat* is enormous, with expansive and detailed sonic queues, cavernously deep and wider than your room when your system is up to the challenge. *Harp Attack* features the voices of Carey Bell, Billy Branch, James Cotton, and Junior Wells, each playing a different keyed harp (harmonica). In the opening cut, "Down Home Blues," the four men are lined up left to right across the stage. As they take turns soloing, both their location within the soundstage and the resultant sounds of their voices and harps were vibrant and lifelike, with remarkably nuanced pitch, and so well recreated in space that, with eyes closed, you might credibly believe the four were standing in your room!

Prior to inserting the PrimaLunas, I had been using either the Pass Labs XP-20 (\$8600) or my reference Dynamic Sounds Associates Pre I (\$16,500) preamplifiers. Time to add the DiaLogue preamp to the mix. As they had been run in at the same time, though in a different system, resolution was excellent, and in fact, much better than I had expected.

Soundstaging was finely and accurately layered, and images were rock-solid in location and stably placed, if somewhat larger than life. Centrally located images seemed less affected by this, but instruments to left and right of center, and especially those deeper in the soundstage, tended to be generated with a

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slight increase in size. I first noticed this with “Peggy’s Kitchen Wall” from Bruce Cockburn’s *Stealing Fire* [True North]. Bruce’s somewhat forward and central voice was still rather faithfully imaged, while the somewhat elevated-to-each-side and deeper-into-the-soundstage voices of the backing vocalists were slightly more inflated, and rendered with a bit less fine individualization. While this attribute persisted throughout the rest of my audition, it was minor and may not even have distracted me had I not been aware of the more focused and clearer individuality rendered by my reference preamplifiers.

While microdynamics, transparency, and resolution took minor hits with the installation of the Premium preamplifier (keep in mind, my reference preamplifier is more than five times costlier), the overall superb mastery of musical scaling, the dynamic prowess and the unflinching faithfulness of tone previously noted with the HP amps were apparent with the Premium preamp too. With it in the mix, the system maintained its enchanting sense of effortlessness, yet relinquished very little in control and slam—not an easy trick even for such an overachieving yet affordable preamp to pull off. There is no questioning the synergistic results of pairing of the preamp and HP amps, they clearly work extraordinarily well with each other.

One peculiarity surfaced while using the mute function with the remote. When engaging mute, the lamp on the preamp lights red to indicate its muted status. Because I had the preamp set to the



right side of my equipment rack, just above and slightly behind the right HP amplifier on its isolation stand, sometimes pressing the mute button would change the lamp to red on the preamp and both amps; other times, the left amp light stayed green. But depending on how I was aiming the remote, sometimes the preamp and right amp would have their lamps green, and the left would remain red. I could restore the errant left amplifier lamp to green by aiming the remote slightly past the left amp, holding it just so, and pushing the mute button.

This was merely a distraction; it had no effect on the sonic performance of the gear. But given that the amps don’t actually have a mute mode, I wondered why the amplifiers’ status lamps would change color when pressing that button on the remote.

Summation

While these PrimaLuna DiaLogue components may have been inspired by the milestones of yesteryear, gone here is any hint of that syr-

upy, dark, blatantly euphonious sound common in those earlier components. Even today, with lesser designs, the over-editorializing of color and texture that has put me off many of today’s more affordably priced tube gear—even some held in high regard—never reared its ugly head throughout my months of audition. PrimaLuna has set an incredibly high bar for performance, with equally incredible pricing.

It would seem apparent that the degree of “overbuild” these products enjoy, the sheer number of devices employed, all being run well below their thresholds, the parts-quality, and the surfeit of safeguards put in place contribute to superb sonic performance. To my ears, the PrimaLuna DiaLogue gear (the HP amplifiers in particular) represent some of the best bargains in valve electronics available today.

While these devices may not reach the pinnacle of “the absolute sound,” I want to make it perfectly clear that they are nonetheless *exceptional* performers, metaphorically punching well above their class, never failing to serve the music they are asked to portray. They display a degree of tonal purity, dynamic expression and scaling, and resolution that I had no reason to expect at this price point. The result is that they have an unswerving ability to draw you into whatever they are serving up.

Combining their exquisite sonic performance with their seemingly bullet-proof design, supplemented by the host of features like their Adaptive AutoBias and AC Offset Killer, these PrimaLunas deliver remarkably authentic music and will likely give their owners years and years of dependable, musically engaging enjoyment.

For someone looking to indulge in the tube experience, with most of the drawbacks superbly minimized, I cannot recommend the PrimaLuna DiaLogue gear highly enough. They offer creative and thoughtful design, exceptional build-quality, first-rate parts and assembly, tremendous attention to detail, an elegant look and feel, and their sonic performance is clearly well above their reasonable asking price. Don’t bother with how they pull it off, just sit back and enjoy! **tas**