

PrimaLuna EVO 300

For the inveterate enthusiast, PrimaLuna continues its tradition of user-tweakable amplifiers with the EVO 300, an ode to tube traditions – but with modern surprises
 Review: Ken Kessler Lab: Paul Miller

It's important to accept how language evolves, particularly when reviewing an amplifier with a name that is a contraction of 'evolution'. PrimaLuna calls its current lineup EVO, as it represents the next step in the advancement of its valve amps, and the 40W-rated £3798 EVO 300 integrated represents the mid-point in a 13-model range. This is a line-only model, available in gloss black or silver, but with a £170 MM phono stage module that can be retro-fitted into an enclosure under the main chassis (not fitted to our sample). Of course, enthusiasts have plenty of alternatives here with the likes of Thorens' MM-008 [HFN Feb '21] costing only £220 and offering both MM and MC inputs.

A fine headphone amp is built-in, a switch on the right selecting headphone or speaker output, the latter via 8ohm and 4ohm transformer taps. As for 'digital', the EVO 100 DAC [HFN Jun '20] exists because founder Herman van den Dungen believes integrated DAC solutions swiftly become obsolete. 'This would cause the re-sale value of the amp to crash', he says.

FEATURE FEAST

All the EVO 300 lacks is balanced inputs, which you do get with the EVO 300/400 power amps and the EVO 400 preamp [HFN Apr '20]. Otherwise, it's a feast of features. PrimaLuna uses costly point-to-point wiring, socketry is top quality, and operation is self-explanatory, save for the 'high bias' and 'low bias' switch on the right side. 'High' is selected for KT120s and KT150s, 'Low' for EL34s, KT88s, etc. Apart from niceties like remote control [p69] and slick auto-biasing, this would not baffle an audiophile circa-1965 who had been plucked from a listening room and transported to 2021.

What makes PrimaLuna's philosophy a joy for tweekers starts with the mono/stereo switching to be found on the amp's

RIGHT: Underneath the EVO 300 reveals its high quality tube bases [left], Teflon-insulated point-to-point wiring, AutoBias circuitry [centre] Takman resistors [flesh-coloured], DuRoch caps [white] and choke-regulated 417V PSU [right]

rear panel. The EVO 300 can be turned into a monoblock when upgrade-itis hits; one just adds an EVO 300 power amplifier. If both are left in stereo mode, they would suit true bi-amplification.

Next – and I loved this, as one who often needs to try both – the remote does more than level and source setting: it enables the luxury of comparing the sound of triode and ultralinear modes from the hot seat without first reaching for the volume control. You'll hear a small gain in level with the move from the former to the latter, and the two deliver the signature sounds of each type – old hands know what to expect [see PM's boxout, p67]. PrimaLuna's 'Adaptive AutoBias' facility, though, is the most important

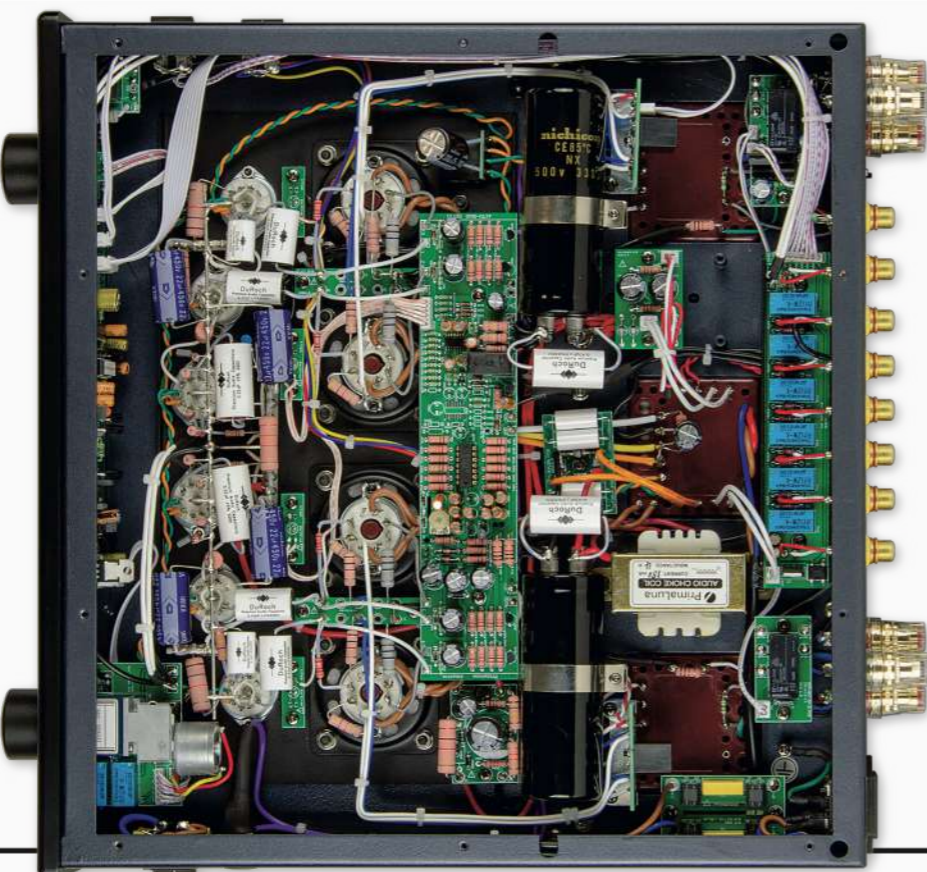
feature regarding owner liberation, making this a dream for the perpetually curious.

ROLL CALL

EVO amps can deal with any of the these without the need of an AVO meter: 6L6G, 6L6GC, 7581A, EL34, EL37, 6550, KT66, KT77, KT88, KT90, KT120 and the latest KT150. (The EVO 100 integrated cannot accept KT150s.) For the review, we stayed with EL34s.

It takes around a minute from switch-on for the red LED to change to green, leaving mute mode. LEDs above it glow green or red for ultralinear or triode, visible from across the room, so if you don't trust your ears, you will still know which mode you're in. The level change is not as great as you might

'This liquidity pegged the EL34's nature to perfection'



LEFT: The EVO chassis has rotaries for volume and input selection. Three 12AU7 double-triodes are used per channel while a wide range of power tubes are accommodated by PL's proprietary auto-biasing (EL34s are fitted here)

the astonishing Broadway recording of *Fiddler On The Roof* [RCA FTO-5032; open-reel tape]. Here 'stage depth' has real meaning: the air and space

think, but I doubt you'd miss it. Even with conservatively-driven EL34s [see PM's Lab Report, p69] the EVO 300 had no trouble driving LS3/5As, Magnepan's hungry LSR panel, or Quad's S1. What the option to fit other valves provides, in addition to the prospect of more power, is a very neat way to fine-tune the sound to suit one's tastes.

BLAST FROM THE PAST

Even from cold, the EVO 300 sounds cuddly and non-aggressive. It delights me to report that the experience with EL34s was akin to finding a virgin Radford STA-25 or Dynaco Stereo 70, both of which used that valve. Those with a taste for higher-powered American amps would need no encouragement to try this with 6550s or

KT88s to emulate a McIntosh MC275. My own observations confirmed that the EL34s in the EVO 300 retained all the familiar traits. Christine McVie's voice throughout Fleetwood Mac's box set *1969-1974* [Warner/Reprise R2 5960060] enjoyed a gorgeous liquidity which pegged that tube's nature to perfection. The EL34's bass was more rounded than the snappier sound of a KT88 or, even more so, a 6550.

Listening to Mick Fleetwood's powerful drumming on the live version of 'Black Magic Woman/Oh Well' on the box set's live CD from 1974, the EVO 300 created a massively wide soundstage, his percussion panning across the front of the listening room. Stage depth was exceptional, wall-to-wall and especially convincing with

recreated by the EVO 300 transforming the listening room into a facsimile of a real theatre. And you could even hear footfalls.

Suffice it to say, even if tube swapping was not an option with this amp, I would have no complaints about how generously the EL34-equipped EVO 300 fills the room, even via the diminutive Falcon Acoustics LS3/5As [HFN Dec '18]. Such random thoughts play right into the hands of PrimaLuna, who rightly boast how much you, the listener, are being given control over the sound. Trust me: changing tubes to tweak your amp is infinitely preferable to tone controls, experimenting with cables or, worse, graphic equalisers. (Heaven forbid they should ever be revived...)

Depending on where you source tubes, or if you own a stash, keeping spare quartets of valves is never a wasteful thing. Moreover, PrimaLuna makes much of the amp's warning system that tells you if a tube has failed, so a stock of valves is a practical consideration, while the potential for experimentation is audibly rewarding.

PURE SOUND

But back to the tubes good enough for Arthur Radford and David Hafler. Mickey Katz's recordings for Capitol, *Strictly Kosher – The Singles Collection 1950-1962* [Jasmine JASCD 825] and Johnnie Ray's *The Singles Collection 1951-61* [Acrobat Music ACQCD7115], same vintage but recorded for Columbia, proved perfect fodder for mono listening, as did The Honeycombs' *Have I The Right* [RPM QRPMBX548].

Aside from anticipating a perfectly-located, between-the-speakers image, mono recordings remove the trial of listening for stereo imaging, allowing you to focus more on the pure sound. These possess something which seems to have been lost since the early 1970s. It's best

TRIODE ON THE SIDE

If HFN readers care to pop over to PrimaLuna's US website [www.primaluna-usa.com/triodeultralinear] they'll discover the brand is very realistic about the limitations of triode mode operation. This includes low power output, limited bandwidth, higher distortion and output impedance, despite the 'elegance' of SET amplifiers retaining a cult status among audiophiles prepared to select from a limited pool of very high sensitivity loudspeakers.

PrimaLuna, in common with other progressive brands, offers switchable ultralinear (UL)/triode modes on its integrated and power amps. Indeed, with its 'AutoBias' facility and ability to accommodate almost any choice of pentode or tetrode, PrimaLuna's EVO series is one of the most flexible in this regard. The EL34 pentodes fitted here are perfectly suited to triode adaption – the control and suppressor grids are disconnected (or linked to the cathode) while the screen grid is coupled to the anode (plate) typically via a 100ohm resistor. This is performed on-the-fly with relay muting to protect ears and speakers!

High quality output transformers are specified, along with moderate use of feedback, squeezing the amp's output impedance down from the 5-8ohm seen in other designs [HFN Feb '21] to 2.86-3.65ohm in UL and 2.28-2.68ohm in triode mode (20Hz-20kHz). However, while this certainly confers better bass control, it will still influence the overall system response according to the impedance trend of the attached speaker. Into a non-reactive 8ohm load, the UL mode offers a more uniform -0.1dB/10kHz to -0.35dB/20kHz treble response against the slightly 'sweeter' -0.25dB/10kHz to -0.85dB/20kHz of triode mode. PM

PRIMALUNA EVO 300



ABOVE: The EVO 300 offers five line inputs, an HT bypass, tape out and sub/mono line outs with a trio of 4mm speaker outputs per channel fed from 8ohm and 4ohm transformer taps, respectively. Optional MM phono module is not shown here

described as a silkiness or sheen, and it characterises Capitol, Columbia, RCA, Mercury and Decca recordings of 50-60-plus years ago.

While RCA and Mercury devotees base their love on classical and strings, Katz and Ray were backed by the last vestiges of big bands and both Columbia and Capitol knew how to record brass and, especially for Katz's recordings, clarinet. Both types benefit from the innate sweetness of the EL34, and the EVO 300 added an unexpected bonus, revealed by these vocals.

A REVELATION

Allowing for the aging of the components, if not the vintage circuitry of classic amps, the EVO 300's sound was a touch cleaner and more open. This was especially noted with Katz's and Ray's vocals, both having distinctive sounds: Katz's was nasal and jokey, given the comedy nature of parodies, while Ray's was angsty and acrobatic. If you are of the school that values that almost indefinable quality of 'conveying emotion' as much as

concrete elements like transient attack, this uncanny realism in the voices will tickle you. And it will also deliver another unforeseen revelation for forensic listeners.

LEFT: Primaluna's system remote offers transport controls for its CD players, input select, volume and mute for its amplifiers plus ultralinear/triode switching for the EVO 400 and 300 models



Because these recordings were of the same vintage, with known recording hardware, the transparency of the EVO 300 – categorically *not* found in vintage amplifiers to this degree – will delight you if you're a student of early record labels. I am not schooled in classical, so I can't tell you which of Mercury, Columbia, Decca or RCA did the best with symphony orchestras, but you will definitely hear the 'Capitol sound' versus 'the Columbia sound'.

It's more complex than studio versus studio, eg, you also have to factor in Mitch Miller versus Nelson Riddle, but the pleasure of discovery is there. The EVO 300, in stock form, was a revelation. But, oh, to have the time to indulge in trying every one of the tubes it can accommodate.

And The Honeycombs? So chunky was the pounding, overegged-by-Joe-Meek drumming on the title track and 'Just A Face In The Crowd' that I suddenly lost the urge to swap out the EL34s for 6550s. For the weight of the drums alone, you can declare that this amp rocks. Whatever the tube. ☺

HI-FI NEWS VERDICT

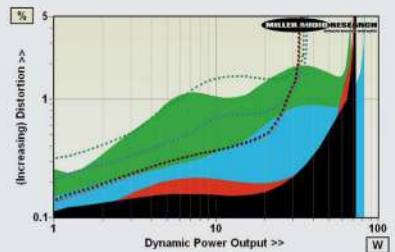
By now you've gathered that the Primaluna EVO 300 is just the ticket for seasoned audiophiles with under-£4k budgets, and no desire to be constrained. Using it is a blast, especially if you have the will and the skill to try various valve types and (like me) revel in remote switching. The best news? The sound will satisfy anyone who loves vintage tube gear but doesn't want to risk 40-year-old circuitry. It's a triumph!

Sound Quality: 85%

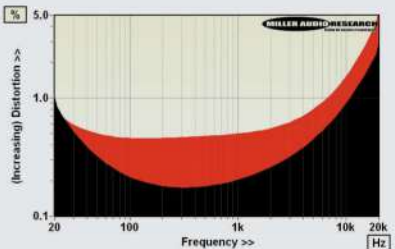


Primaluna typically runs its power stages at a conservative anode/screen voltage (417V here), sacrificing a potentially higher power output for improved tube life – a sensible compromise for enthusiasts eager to minimise downtime and running expenses. The EL34-equipped version tested here is rated at 2x42W in UL mode and 24W in triode mode [see boxout, p67], although its literature suggests both 1% and 2% THD. In practice the clipping point is fairly sharply defined so there's little extra power at a 2% limit – 2x55W in UL and 2x28W in triode modes into 4/8ohm loads via the 4/8ohm taps, respectively. All test results for triode mode are in parentheses, below. Furthermore there's sufficient headroom to accommodate 69W (32W), 69W (33W), 80W (35W) and 64W (33W) into 8, 4, 2 and 1ohm loads via the 8, 4, 4 and 4ohm taps, respectively [see Graph 1, below].

Overall gain is only about 0.8dB lower in triode mode (+36.3dB vs. +37.1dB) – possibly sufficient to influence quick A/B listening comparisons – but the triode setting also benefits from a 3dB boost to an already generous A-wtd S/N ratio (88.8dB vs. 85.8dB, re. 0dBW). Negative feedback is typically reduced to increase the gain of triode mode at the expense of distortion, but the difference is not large here – 0.082-0.55% in UL to 0.13-0.48% in triode mode at 1W/8ohm (20Hz-20kHz), and 0.17-2.9% in UL to 0.45-5.6% in triode mode at 10W/8ohm [see Graph 2]. I discuss the impact of the EVO 300's moderate 2-3ohm output impedance (via 8 and 4ohm taps) on frequency response in my boxout, although both modes exhibit a +2.5dB 'bump' at a subsonic 5-6Hz, so you might care to plug the ports of big, reflex-loaded loudspeakers if you choose to spin some vinyl! PM



ABOVE: Dynamic power vs. THD into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads (dashed lines – triode mode)



ABOVE: Distortion versus frequency for EVO 300 at 1W/8ohm (Ultralinear mode, black; triode mode, red)

HI-FI NEWS SPECIFICATIONS

Power output (<2% THD, 8/4ohm)	55W (27W) / 55W (28W)
Dynamic power (<2% THD, 8/4/2/1ohm)	69W / 69W / 80W / 64W
Output impedance (20Hz-20kHz)	2.86-3.65ohm (2.28-2.68ohm)
Freq. response (20Hz-20kHz)	+0.2dB to -0.35dB (to -0.8dB)
Input sensitivity (for 0dBW/42W)	79mV / 511mV
A-wtd S/N ratio (re. 0dBW/42W)	85.8dB (88.8dB) / 102dB (105dB)
Distortion (20Hz-20kHz, 10W)	0.17-2.9% (0.45-5.6%)
Power consumption (Idle/Rated o/p)	160W / 295W
Dimensions (WHD) / Weight	386x206x404mm / 31kg