

About ML2.1 monaural power amplifier



ML2.1 is the first in a line of LAMM single-ended amplifiers with a regulated power supply that represent a new generation of power amplifiers employing unique high current low impedance power vacuum tube triodes (6C33C) in both the output stage and voltage regulator.

Implementation of these triodes has allowed creating an output transformer with a very low turns ratio and, as a consequence, extended (as compared even to the most advanced modern vacuum tube amplifiers) frequency decade factor, as well as dramatically reduced leakage inductance.

Chosen by the Design and Engineering Committee as one of the most innovative products of the year in the "specialty audio" category, the ML2.1 is a first single-ended amplifier on the market capable of reproducing a full range of audio frequencies and recreating the original spectral balance and harmonic structure of the recorded material with almost 100% accuracy. Another unique aspect of the design enables the ML2.1 to recreate a three-dimensional soundstage without boundaries and limitations while maintaining the extraordinary transparency of perceived sound.

A custom-designed output transformer, along with a unique output stage and high-current regulated power supply, allows the ML2.1 to drive most of the real-world speakers and yield tremendous sonic stability under most dynamic conditions. Although the ML2.1s can drive most speakers, their full potential is realized in tandem with high efficiency speakers (94 dB and higher).

Two multi-turn trimming potentiometers accessible through special openings in the amplifier's chassis, along with two sets of test points, allow the user to adjust and measure the nominal value of plate voltage and plate current of the output tube by using an external voltmeter.

In conceiving and executing an overall design of the ML2.1, the goal was to utilize the modern technology and processes while recreating a look reminiscent of the long-gone genuine vacuum tube era. Each amplifier is carefully constructed and handcrafted of the finest materials and world class parts, some of which include military graded low noise DALE metal film resistors; ELECTROCUBE and ROEDERSTEIN film capacitors; high frequency switching grade CORNELL DUBILIER and UNITED CHEMI-CON electrolytic capacitors; HAMMOND chokes; gold-plated NEUTRIC XLR connectors; and military graded low noise long life vacuum tubes.

Special attention was given to designing the toroidal power transformer, which has no mechanical contact with either the transformer cover or the chassis, and is suspended in a special encapsulant which almost completely absorbs even the residual mechanical vibrations. This plays a significant role in assuring the absolutely unique clarity and micro-resolution during sound reproduction.

The ML2 works on all world AC line voltages without elaborate modification.

U.S. Patent pending.

What prominent audio critics have said about the ML2s

...Listening to the ML2s presents me with music in a more lucid and understandable way than ever before. But it is not an impressive sound in a hi-fi sense. Instead it is astonishingly natural and unforced, simply clean, clear and transparent, consistent with the recording and nothing else. It is also surprisingly consistent with different speakers and source components, undisturbed by the load the amplifiers see, faithful to the signal they are fed.

...With any such transparent device, choice of pre-amp is critical. I [had] access to [a number of preamps including] Lamm's own L2 Reference line-stage. ...it's the [L2] which makes the greater musical sense, coherently and evenly, from top to bottom. It's an interesting discovery because what it shows is designer Vladimir Lamm's innate appreciation of musical balance. He's quite prepared to sacrifice hi-fi attributes in a product in order to achieve a more musically satisfying overall result. It makes the ML2s' stellar hi-fi performance all the more remarkable, for this is above all, a musically natural sounding amplifier. It presents the entire bandwidth, from deepest bass to as far up the treble range as it reaches, as a single continuous, coherent whole. There is no discernible discontinuity or change in the nature of the sound. Instead, the speed, resolution and propagation of musical energy is completely even regardless of frequency.

...It's this ability to accurately shape and deliver the energy profile of a note that sets the Lamm apart: that and the fact that it achieves the trick regardless of frequency, a particularly difficult feat for an amplifier that is driving a dynamic load. So the bass isn't just deep and powerful, fast with natural weight; it's tuneful and harmonically rich and vibrant. It's got life and detail, texture and shape. It's as far removed from 'hi-fi' slam as it's possible to be. It sounds real. So does the mid-band, and so too does the upper register. I've labored the point with the bass simply because it's so unexpected [for a single-ended amplifier -- V.L.].

...[the ML2's] quality lies not just in the delivery of musical energy, but the manner of its delivery. Like all great hi-fi, you don't hear it working. That grace extends across the range. ...the ML2 is completely consistent, ensuring that changes in space, texture and perspective imposed by the amplifier never distract the listener from the music.

...the ML2 presents the listener with a classic conundrum. Here is a low powered amplifier that will drive the whole audible spectrum with authority, speed and transparency. It will also drive awkward loads of the type that give most triodes, single-ended or not, a severe case of the heebie-jeebies accompanied by that sorry soggy bottom sensation.

...the Lamms performed flawless with everything I threw at them. They are the nearest thing to an invisible power amp I've ever come, so natural is their overall presentation.

...The ML2s don't come with rose tinted spectacles, or any of the other triode baggage. In fact, they don't sound like the traditional model of a triode at all. They aren't finicky in terms of matching, or fiddly in terms of use. Operationally speaking they are one of the best thought-out valve amps I've ever come across (they even have externally switchable international voltages). Then of course, there's the sound, which is peerless in my experience (and I've heard the amps in a whole variety of systems, situations and rooms): Triodes without the limitations, valves without the trouble. Throw out your prejudices and pre-conceptions; throw out your limited horizons too. The Lamms arrive with none of the stunted aspirations that afflict the majority of hi-fi. They also arrive with a way hefty price tag. They're worth every penny.

Roy Gregory, Hi-Fi+ (U.K.) (issue 16, 2002)

...Perhaps the best sound currently attainable--treble and bass extension, lively and magical midrange, speed, great retrieval of detail, complete lack of a musical artefacts; as natural as reproduced music gets.

...The ML2s are true luxury items whose value is in the mind of their owner; to those who can afford them, they may be considered priceless.

Marc Mickelson, www.soundstage.com (March, 1999)