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85 Moorehouse Drive, Scarborough, Ontario
Canada M1V 2E2
Tel: (416) 297-7968
Fax: (416) 297-0311
E-mail: editor@innerear.on.ca
Website: www.innerear.on.ca

Wyetech Labs Preamplifier Model Jade

Source: Wyetech Labs

Price: click here

Rating: ♪♪♪♪

Wyetech Labs' Roger Hebert was a troubled man. His distributors had pleaded with him for over a year to build an "affordable" preamplifier, less expensive than the previously released Opal, but with similar performance parameters. A perfectionist at heart, Hebert hates inferior workmanship and parts and wasn't looking forward to the mission of designing and building a preamplifier which, in his opinion, would not be of the sonic calibre of the Opal. However, after a few trials with some prototypes, he pulled it off. The Jade, though a step down from the fabulous Opal, is, in fact, a close relative with the unmistakable sonic signature of a highly resolving component. More about this later, but first ...

Appearance

The solid aluminum housing, the various buttons and the immaculate mauve finish mark the unmistakable family resemblance to Wyetech Labs' Opal and Topaz units. The Jade's mechanical construction is magnificent by any standards. Machined aluminum plates are bolted to square posts and culminate as an effective shield from external influences. The control knobs are made from solid brass with a nickel plated finish. Built like a tank, the Jade features non-magnetic stainless steel and brass hardware, but still manages the appearance of a classic piece of equipment. The Jade is a single unit preamplifier which offers minimal controls with maximum versatility. The front plate features (from left to right) the input selector switch, a small toggle for tape, the balance control, the volume control and a small toggle for the mute function. Two indicator lights show red for standby and green for in use. The on/off switch is located on the unit's rear nanel, where all the gold plated RCAs are logically arranged.

Technology

Based on the design of the more expensive Opal preamplifier, the Jade is a line-level component deviating in circuit topology in only a few areas. In the Jade, Hebert kept the grounded grid configuration - as in the Opal - which he regards as the best possible circuit topology for line level amplification. The circuit is isolated by a cathode follower stage before and after. All three stages are non-inverting, maintaining absolute phase. Only one buffered output permits the tube count to be reduced to three double octal based triodes - 6SN7 dual triodes. As in the Opal, the audio circuit maintains an exceptional bandwidth that extends well beyond 250,000 Hz. Instead of a

separated power supply, the Jade's power supply is built on a separate terminal board implementing a passive shunt regulation of its 200 volt DC supply. A double pi RC-type filter and a 30 watt Zener diode network are used to shunt the current while stabilizing the DC voltage level. Like the Opal, active feedback has been avoided to maintain the power supply's speed in proportion to the exceptionally fast analogue circuitry. To achieve stability, a large electrolytic reservoir capacitor and another large (30 µf) polypropylene film capacitor to enhance speed in the final filter stage are employed in this design. The 30 µf capacitor is mounted directly on the analogue terminal circuit board. These boards - made by Vectorboard, with swagged terminal posts - are identical to those used in the Opal preamp and the Topaz amp-hand crafted and specifically designed for durability. Hebert states that the circuit boards offer ten times the life expectancy of printed circuit boards. To avoid capacitive coupling between components, the boards are spaced away from the surrounding metal chassis. In this design, Danish-made ELMA stepped volume controls with 0.1% precision metal film surface mount resistors are employed (they are said to be second best only to the Shallco military switches used in the Opal preamplifier). This volume control has gold-plated contacts with surface mounted metal film resistors. The channel balance is within +/- 0.05dB. The selector switch and balance control employ Electroswitch silver contacts. The power supply is a unique design which removes all ripple and noise while maintaining a constant voltage regulation of the 200 volt DC power line. All wiring is point to point laid out on top and bottom of the board and soldered to the bottom layer of the terminal post. Components are soldered into place on the top layer of the terminal - a method that allows parts replacement without removing the board. High-end Teflon coated silver-plated wiring is used where appropriate and silver solder is used throughout. The unit features automatic power sequencing and 90 second muting to allow circuit stabilization. Muting is accomplished with a 2-pole relay that shorts the outputs and it's not in the signal path when disengaged.

The Jade's specifications read well, boasting a frequency response flat from 20 Hz to 100 kHz +/-0dB, from 3 Hz to 320 kHz, +0 dB/-1 dB, from 1 Hz to 570 kHz, +0 dB/-3 dB. Input impedance is 50 kW, output impedance is 425 ohms, slew rate is greater than 30 volts/microsecond and the unit includes two preamp outputs, four line level inputs, one tape input/output and one line level output. The channel balance control is 11 position for +/-5dB adjustments in 1dB steps. The volume control is a 24 position unit. All in all design fit for a king and all music lovers and audiophiles.

The Sound

As we had the Wyetech Labs Topaz amplifier in-house at the time, we connected the Jade, replacing the Opal for the first few auditioning sessions. The source components previously connected to the Opal, the Nordost SPM interconnects and our in-house power line conditioner, the LC1, were re-connected to the Jade and auditioning commenced. We decided to utilize the Coincident Technology Super Eclipse and the Tetra Live speakers (both reviewed in Vol. 11 #4) for all our auditioning sessions as both these models disclose a component's merit within a system. Source components were an Elite transport/Audio Alchemist DAC&DTI Pro, the Rega transport/DAC and the Magnum MD 108 tuner.

We bombarded the Jade/Topaz system with well-known musical material ranging from raunchy blues to sophisticated French Opera classics; and it didn't take very long for our panelists to establish that the sonic makeup of the Jade closely resembles that of the Opal in all attributes. A direct comparison with the Opal revealed that the resolving calibre across the audible frequency reach is slightly diminished at the very bottom, deep bass. The upper midrange segment sounded somewhat less defined, yet very

accomplished to execute inner detail. The critical top frequencies reach about 90% of the Opal's caliber of sophistication - a difficult to hear difference, perceived only by one of our most experienced listening panelists and the Editor. Imaging, superb by any standard, is second only to the Opal. Compared to it, the left-to-right dimension is a little narrower, while the horizontal data was a touch lower, resulting in a sound-stage height about six inches lower than the Opal's. Front-to-back information was precisely as the Opal's, revealing appropriate layering of instruments and vocals on an well-etched sound stage.

We then connected the Jade to our in-house solid state amplifiers-the OCM 800, the Bryston 8B ST and the Parasound 3500-to check its compatibility and performance with these units. For these listening tests, we used the earlier mentioned loudspeakers and source components to establish a stringent auditioning environment. The Jade allowed the various amps to introduce their sonic personalities, remaining passive in its function.

Synopsis & Commentary

Wyetech Labs' Roger Hebert has a design philosophy which adheres to the old adage "less is more" and it appears that ,with the Jade, he has created another great component. We have always stated that a preamplifier is the most important component and the nerve centre of an audio system. This is where all your source components are connected and, no matter how good an amplifier one may use, if the preamplifier "hasn't got it", the end-result, the music, can wind up sounding mediocre at best. It is relatively easy to find a good amp to drive a pair of speakers while a good preamp, on the other hand, isn't as readily available. The ideal preamplifier would be one you can't hear as it should pass signal onto the amplifier without introducing any signature at all. The old timers in the business always said that the ideal component is a wire with gain, but don't believe for one second that such an item is currently on the market. Every preamplifier has a sonic signature which, under the best conditions (a synergistic alliance with a power amplifier), can be stunningly revealing. Under the worst conditions, however, a preamp can practically destroy musically authentic information. We should tell you here that great preamps will cost great money and few brands offer the right "stuff" under $2,000 US ($3,000 Cdn). The industry's best preamps are in the five figure range and the worst are in the three figure vicinity. Lower priced preamps often offer "adequate" sound, but can sound rather impressive when connected to components which happen to be a harmonious electronic match. However, most of these preamps are also very system dependent and it isn't until we get to the megabuck units that minimal dependency may be expected. The Jade is minimally system dependent, if at all, as it drove every amplifier we had in house, allowing all amplifiers to transmit their sonic quality. What this means is that . the final outcome, the reproduced musical data, is very respectable indeed. In terms of musical authenticity, however, we emphasize that the Jade belongs with the handful of preamplifiers that manage bona fide information as long as the balance of the system is at the same level of quality. Our Editor commented that the Jade offers a high degree of sonic neutrality along with the luscious sound quality often related to vacuum tube designs.

To date, the best preamplifier we had ever heard, auditioned and reviewed was Wyetech Labs' Opal. The Jade performs almost in line with the Opal, upholding its sonic signature, its revealing characteristic and its musicality to about ninety percent of its more expensive sibling. In addition to the Jade's sonic merits, Wyetech offers construction and parts quality far superior to most designs we have come across in the 13 years of our existence. This preamp is another solid performer and should not be ignored by anyone in the market for high-end, highly resolved musical data.