

OWNERS MANUAL

MANUAL NO. 01

REV. DATE: 5/20/2017

THE ZEN TABOO MK IV



Planar Headphone

MODEL TABOOMKIV

 **DECWARE**

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INTRODUCTION

The Taboo Mk IV is the end result of an amplifier design whose evolution spans over thirteen years. What made the original design as well as the current one unique, was the feature called “Lucid Mode”. This feature took the single ended outputs from each channel, an output stage employing a virtual ground and a inverted positive feedback loop and combined them in such a way as to create a cross-feed effect that works without any filters or additional parts. With the introduction of the Mk IV, this effect is now fully variable with a bypass switch.

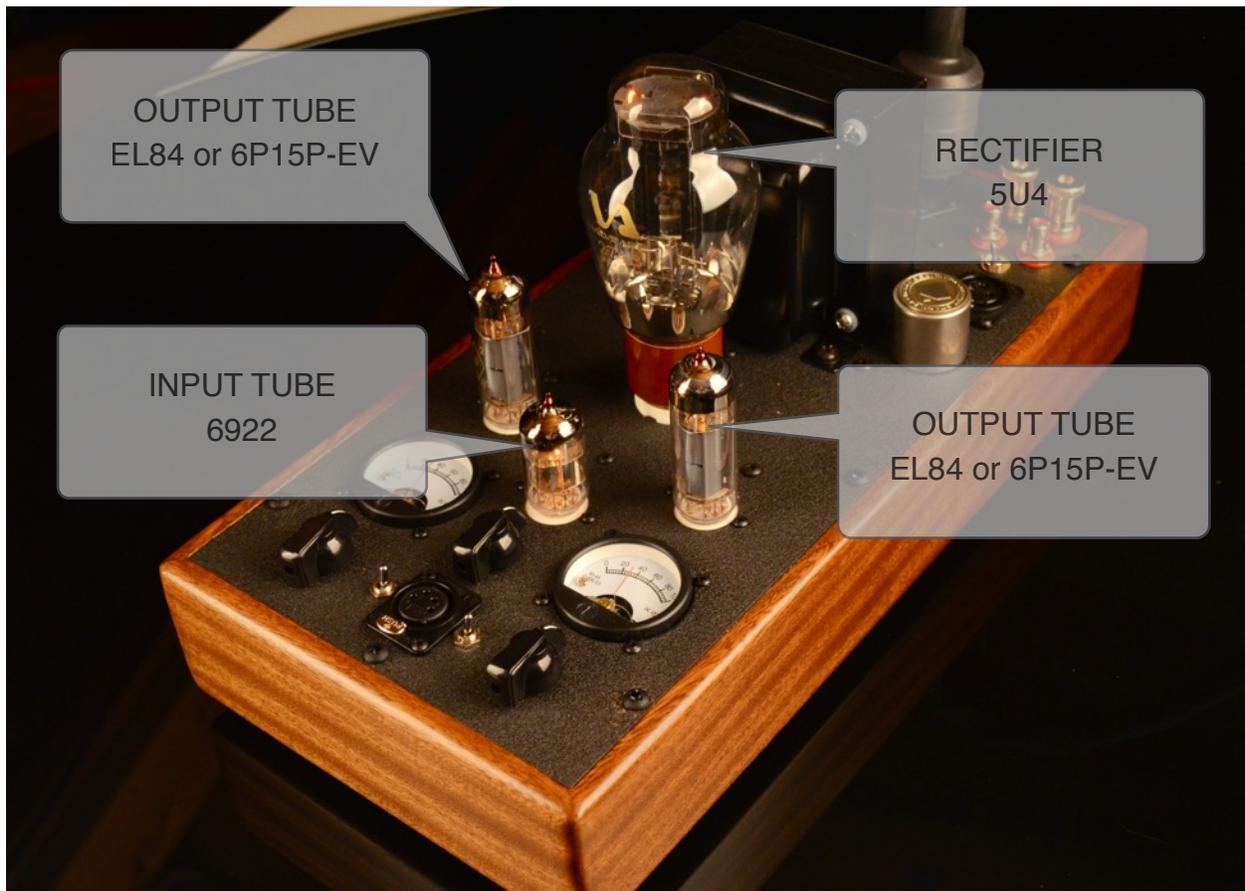
FEATURES

- Single-ended class A fully balanced output for headphones between 2 ~ 600 ohms
- Can also drive conventional loudspeakers on the desktop or listening room
- Inputs for two sources with optional transformer balanced XLR inputs for each channel
- Dual Volume Controls for exquisite balancing with analog meters for each output tube
- The world’s best cross-feed called “Lucid Mode” with full adjustable level and bypass
- Hi & Lo output modes to accommodate both efficient and non-efficient headphones
- Drives Planar Headphones and Dynamic headphones with 1700 mW per channel
- Cryogenically treated Beeswax Caps, UFO wide bandwidth output transformers and NO circuit boards.

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START UP

1. Install the tubes into the correct locations using the picture below:



When you first get your Taboo Mk IV be sure to tube it up with the factory supplied tubes. These have been carefully tested in the amplifier and are reference quality. NOTE: We may ship your amplifier with a RECTIFIER tube made by ValveArt called a 274B. This is because we have found this rectifier to be the best sounding in current production. Do not confuse this tube with a New Old Stock 274B or one from TJ Full Music Company as those tubes are not compatible with the Taboo or any Decware amplifiers. The ValveArt 274B is just a ruggedized 5U4 that also happens to sound better.

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If you would like to experiment with other tubes to see how the sound changes, you should know that the input tube is the one that makes the biggest difference. We usually ship the Taboo with a 6N1P-EV which is a military grade Russian tube similar to a 6922 but slightly warmer sounding and usually longer life.

Compatible **Input tubes** with the Taboo Mk IV

- 6N1P-EV - warmest of all likely alternates, slightly lower resolution.
- 6DJ8 - leaner bass, more exotic top end and overall clarity.
- 6922 - more clarity, better dynamics.
- 6N11 - more clarity, more speed.

The largest of the four tubes is an 8-pin tube also known as an octal tube. This is your rectifier. There is a centering pin with a locator on this tube so that the tube isn't rotated out of position. The centering pin is longer than the tube pins so use it to locate the correct rotation of the tube and then insert the tube into the socket.

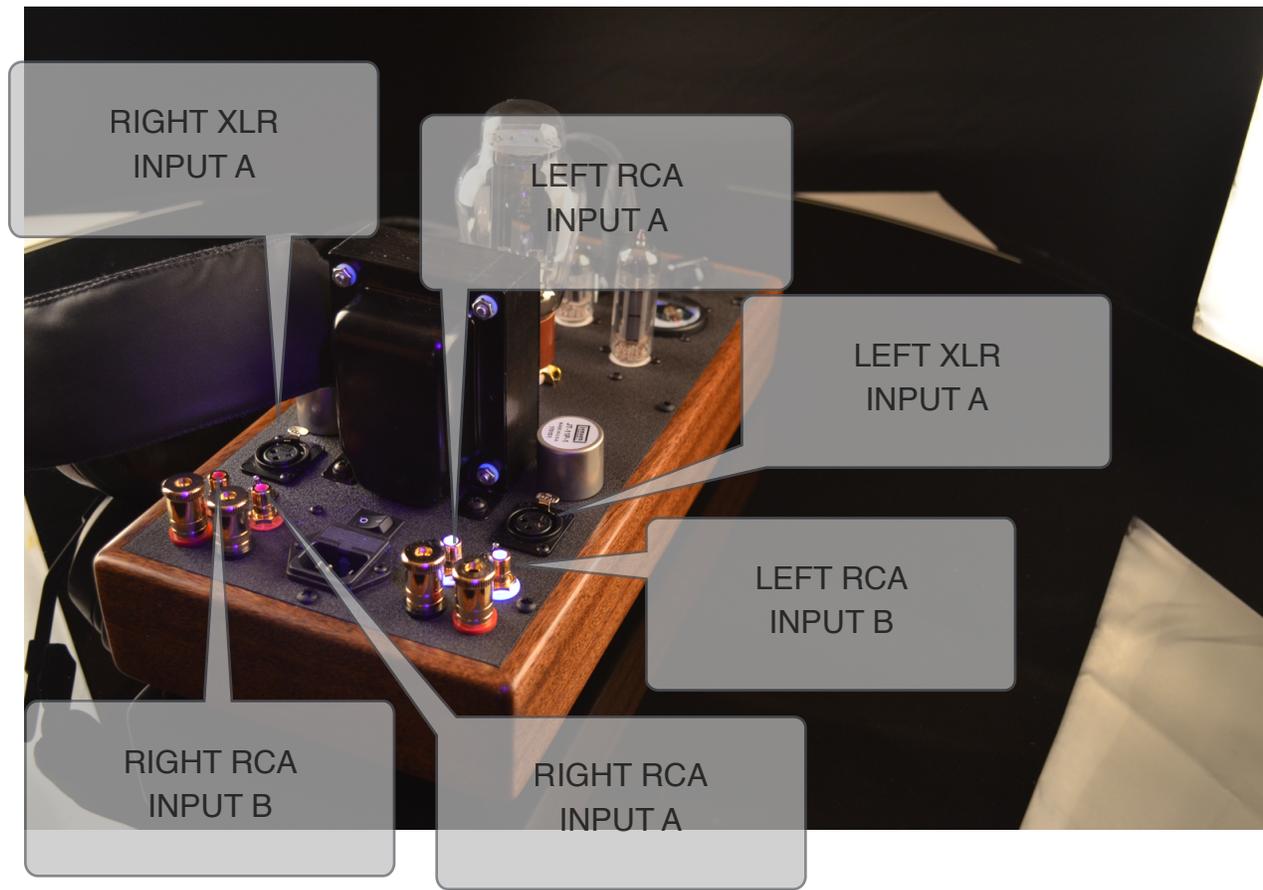
The remaining three tubes are 9 pin tubes and are located by a simple gap between two of the pins. Simple observation makes it easy to correctly install these tubes. Just make sure the smaller tube pins of these tubes are not bent because damage could occur to the tube socket on the amplifier.

If your 9 pin tubes have bent pins, they can be easily straightened with a tube pin straightener occasionally available on eBay, or pins can be individually straightened with a small needle nose plier.

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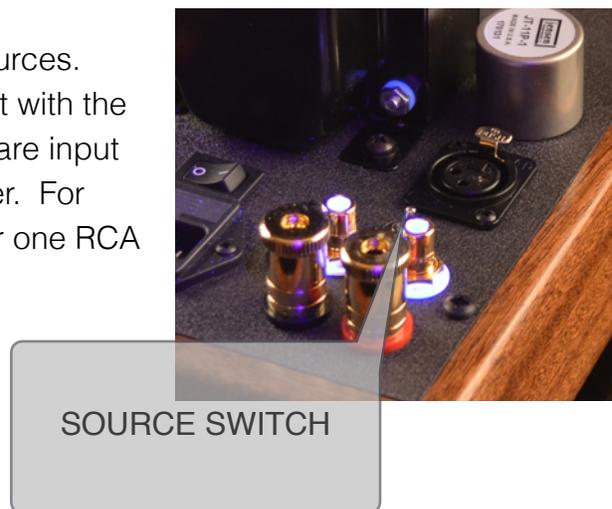
START UP CONTINUED

2. Install your sources using the picture below:



Your Taboo has accommodations for two sources. Input A and Input B. When the Taboo is built with the XLR option, the XLR and RCA jacks both share input A assuming you will only use one or the other. For example, you can have two RCA sources, or one RCA source and one XLR source.

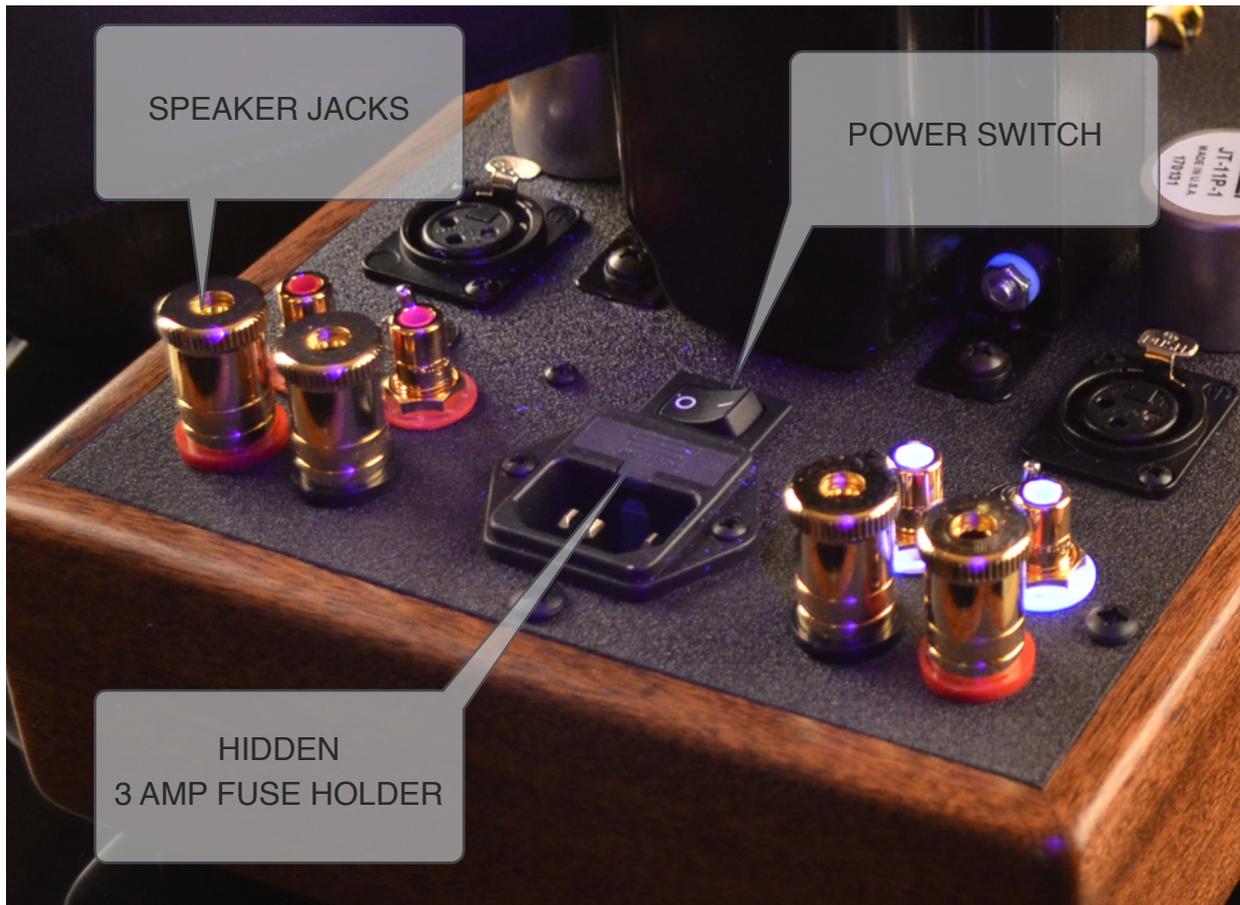
There is a source switch for each channel located just in front of the RCA jacks.



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START UP CONTINUED

3. Install the power cord and speakers.



Insert the power cord and take a moment to notice the hidden door for the 3 amp fast or slow blow 5x20mm fuse. It can be pried open with a small screwdriver to reveal the fuse. There is also a spare fuse inside.

If you plan to use the Taboo to drive loudspeakers, hook them up to the speaker jacks shown below. Red is + and Black is -.

Do not hook the two black speaker jacks together or to ground as the Taboo will not work properly.

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START UP CONTINUED

4. Turn on and watch meters shown in the picture below.



There is a meter for each output tube of which there is one per channel. Once you turn on the power, all the tubes will begin to glow. It takes about 5 to 10 seconds or longer to see the glow. How easy it is to see will depend on how dark the room is at the time.

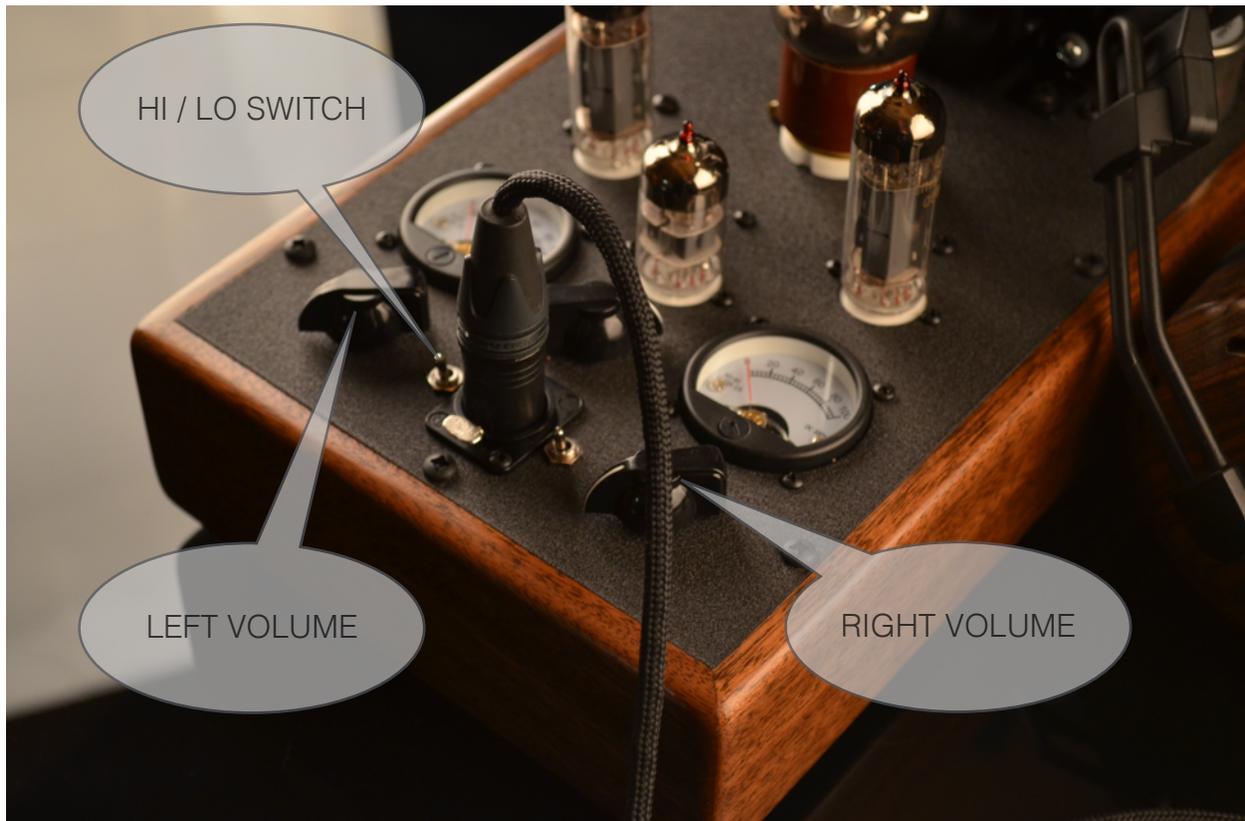
Once the tubes begin to glow they will also start conducting current at which point you will see the meters lift off zero and rise to somewhere between 20 and 40 on the dial. These readings indicate milliamps. As long as each tube falls between these two numbers it is ok to use. If a tube reads higher or lower it should not be used.

Average tube life is 3000 ~ 6000 hours.

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START UP CONTINUED

5. Set Volume and insert headphones.



The Taboo has two volume controls, one for each channel. They are located directly under each meter. In the picture these controls are shown with black chicken head knobs, but there are many knob options so your knobs may look different.

Always have both volume controls turned all the way down (counter-clockwise) until you connect your headphones, then slowly raise the volume controls.

The headphone jack is a 4 pin XLR. To the left of the jack is the HI/LO switch. It simply adjusts how loud the headphones play relative to the volume control. If you hear any hum, set the switch to the lower setting.

You are now ready to listen to music.

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OPERATION

1. Lucid Mode controls are shown below.



To use lucid mode, you simply adjust the dial to the desired amount by using the bypass switch to A/B the effect vs. no effect. That way you can clearly hear what it does and quickly discover how the effect acts differently on different recordings.

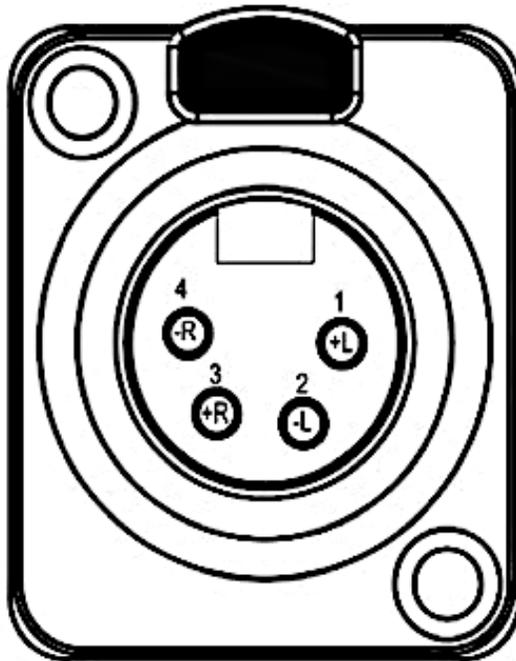
When the dial is fully counter-clockwise the effect is difficult to detect right away. When the dial is fully clockwise the effect is obvious.

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HEADPHONE DETAILS

The Taboo uses a 4 pin XLR headphone jack because the output of the Taboo is fully balanced and if you combine the grounds together like is done in a 1/4 inch jack, lucid mode will not function. With a 4 pin XLR jack the headphone cable has 4 conductors, a positive and negative for each channel. This arrangement also typically sounds better than a cable with only 3 conductors.

Below is the pin out of the Taboo 4 PIN XLR headphone jack.



1. L+
2. L-
3. R+
4. R-

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OPERATION CONTINUED

1. Lucid Mode

Lucid mode accomplishes two things:

1. Cross-Feed where information from the right channel is present in the left channel at the proper level and frequencies to simulate the effect one gets from listening to loudspeakers in a room.
2. Extraction where information buried in the recordings is flushed to the surface adding to a more live feel with more presence.

The first half of the dial is cross-feed. The second half of the dial is extraction. That is to say that when you pass the half way point on the dial, cross-feed turns into cross-feed AND extraction with the level of extraction increasing as you rotate the dial to full.

NOTE: Cross-feed is usually desirable on all recordings, however Extraction is more recording dependent. For example, an audiophile recording can often sound really good with Extraction, whereas a commercially typical recording with lots of effects patched into the recording console will often suffer from more than a tiny amount of Extraction. Using too much will often ruin the recording. (*The prior version of the Taboo had Cross-Feed and Extraction on two separate switches and neither were adjustable.*)

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HEAT / SAFETY

The taboo consumes 75 watts from the wall outlet so it puts out less heat than a 75 watt light bulb and should have no problems on a shelf in an equipment rack. If the shelves of your rack are wood, allow 4 to 6 inches above the tallest tube in the amp. If you don't have that much space there is a danger of the wood drying out over time and eventually cracking. This can be avoided by adhering a piece of aluminum foil to the bottom side of the shelf above the amplifier. While no harm will come to the amplifier with 24/7 operation, it is good practice to turn off tube gear at night while you sleep and when you are away from home.

SPECIFICATIONS

Weight	17 lbs. ea.
Dimensions	8.5" H x 7.25" W x 14..75" D
Chassis	Steel/Wood
Finish	Black Powder Coat Typewriter Finish
Base	Solid hardwood / user interchangeable
Circuit type	Single ended Class A Pentode
Power output	4.6 watts into 8 ohms
Input voltage	2.1 volts for full output
SNR	-86dB
Response	20 Hz ~ 80 kHz
Rectification	5Y3GT / 5U4 / 5AR4 tube rectification
Output tubes	SV83/6P15P-EB or EL84/6BQ5
Signal tube	6922 / 6N1P
Transformers	DECWARE UFO widebandwidth
Biasing	Self-Biasing circuit - never needs adjustment
Resistors	All resistors are precision WW/MF by DALE, VISHAY
Signal Cap	Audiophile grade Cryo Treated Beeswax Paper Foil
Filter Caps	Premium grade 500V electrolytic's
AC cord	Fused IEC connector provided with removable power cord
Consumption	75 watts at full power
Input jacks	RCA type 24K Gold / Teflon
Output jacks	Gold 5-way binding posts accept 8 gauge wire
Warranty	Lifetime to original owner / 90 days on tubes