





## The Topaz Linestage

Canta Audio Topaz line stage is the outcome of several years' research and development. Most of that time was invested in fine-tuning, reliability checking and proper operation tests. We can therefore provide a 3-year guarantee for all parts, except for tubes that are covered for 6 months.

We opted for a tube-based line stage design, as tubes allow for the most minimalistic approach, regarding the number of components needed, in comparison with solid state.

We maintain a deep respect for the so-called “vintage” designs, mainly because they demonstrate the rare engineering skill of technicians who could not count on modern tooling and componentry, such integrated regulators, op-amps, or on today's vast plethora of high-grade materials. The sonic result would more often be colorful than neutral but in many cases very natural. It is not uncommon for an old design to “lock on” the thin textures of music, in a way that is nowadays scarce.

Canta Audio's approach is a sophisticated blend of both past and present eras, to give the best from both worlds. The Topaz line stage identifies itself as a genuine sample of this innovative architecture but most importantly as the axis to connect two basic principles: Natural saturation and neutral behavior.

Critical attention has been given where it matters, to make sure that not even the minimum loss of low-level information would be allowed. This is something that night listeners will definitely appreciate as one of the Topaz preamplifier's most valuable virtues. We won't hide the fact that its fine-tuning sessions included a great amount of midnight listening at low volume levels.

## Technical Specifications:

Tubes:	2x 6N23P NOS
Inputs:	5x line (RCA)
Outputs:	2x line out, 1x rec out (RCA)
Frequency Response:	5Hz - 100KHz
Output Impedance:	Less than 130Ω
Dimensions:	420x134x328 (mm, WxHxD)
Weight:	14 Kg

## Circuit Design

Topaz runs in pure class A operation with no global negative feedback whatsoever. Faithful to minimalism principles, it only sports two single ended stages and only two ultra-linear high quality film capacitors in the signal path.

The PCB is 2 layer design, military specified, made of 2,5 mm thick fiberglass and its copper tracks are all gold plated. Routing has been implemented, to achieve the shortest possible signal path. The RCA inputs and outputs are directly soldered to the PCB, whilst all relays fitted beside use gold plated contacts for high reliability. The potentiometer is the world class motorized Blue ALPS; a long shaft couples it to the front rotary volume knob. This allows for the potentiometer to be placed where the circuit design expects it to be, so no detours on the signal path.



## Components

Canta Audio makes exclusive use of specially selected, low tolerance, long-life military grade parts - tubes included. Power supply capacitors come from the top quality ranges by Vishay and Elna and ensure uncompromisable stability and ultra long hours

The power transformer itself is oversized, especially designed for Canta Audio Topaz line stage. It incorporates two separate shields in each winding, one of them fully grounded.

## CPU Controlled Soft Start (CCSS)

To go a step further in the reliability department, we decided to embed a sophisticated processor-controlled soft-start circuit, which smoothly initiates each tube's operation in 3 discrete steps. Upon completion of each step, a dedicated relay is activated. Every time the Topaz linestage is switched on, you will need to wait 3 minutes for the circuit to finalize the soft start procedure. This mandatory action is taken to extend the tubes' life by preventing them from rushing into normal operation while still cold. Additionally, Topaz also employs a secondary soft start circuit, dedicated to the transformer.

designed with passion.  
built with passion.  
enjoyed with passion.



## Enclosure

Canta Audio has primarily spotted those very significant points where the utmost care is indispensable in our quest for ultimate performance. Tubes usually suffer from microphonics and electromagnetic interference. To ensure that no noise will make it through the chassis to the sensitive tubes, the Topaz has its transformer coupled to a special elastomer suspension, which effectively absorbs any native vibration, thus preventing it from reaching the chassis. The latter is made of folded steel, a very sturdy material with true shielding properties. The whole structure rests on sorbothane feet to deliver that final touch of “black” to each recording's background, on which even the faintest detail is effortlessly discernible.



## Power Supply

Topaz uses a separate power supply per stage and per tube. Power cables are from 99,9% pure solid core copper, whereas the power switch sports gold plated contacts.

Sophisticatedly voiced using special NOS components from Canta Audio's stock, the Topaz's PSU section collaborates with the rest of the circuit, to deliver a wide soundstage, along with openness, lifelike dynamics, natural timbres and low level information in spades; Topaz lets you literally monitor and isolate every detail.

## Tubes

Canta Audio Topaz line stage uses two handpicked 6n23p NOS triodes, made in compliance to the Russian military. Every Topaz is fully burned in before being shipped. These specific type tubes were chosen both for their sonics and long life specification; around them we designed a perfectly matching circuit, to squeeze the ultimate performance out of this triode. Its very low output impedance (<130Ω) combined with ultra-wide bandwidth and enormous headroom render the Topaz ready and able to drive virtually every power amplifier on the market, be it solid state, vacuum tube or class D.

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