

In contrast to all OTL amplifiers in the market, which are push pull amplifiers working in Class AB, the Collatio is Single Ended (thus Class A), either in Stereo or Monoblock mode (80W)

The main difference among the various Push pull designs on the market is the topology and feedback loops between the drivers and output tubes, where the Collatio is a complete new approach in commercial OTL amplifiers.

Our output stage is a unique Single ended stage, a parallel-feed power stage, using 20 power tubes in parallel per channel, loaded by 4 massive chokes, and AC coupled to the output terminals, using an exotic film capacitor.

The capacitor is designed to be able to surge 20.000A peaks, and its ESR and ESL specifications, are an order of magnitude lower than any audio capacitor, film or electrolytic, thus the capacitor is virtually a single wire at audio frequencies, at the same time protecting your speakers from any mishap.

Single ended means strictly Class A. In contrast to mainstream OTL designs, which can get away with 200mA of bias for each tube bank, the Collatio 20W amplifier is biased at 2.6A per channel. The power supplies must be stable and robust at such a high idle current demand from the output stage

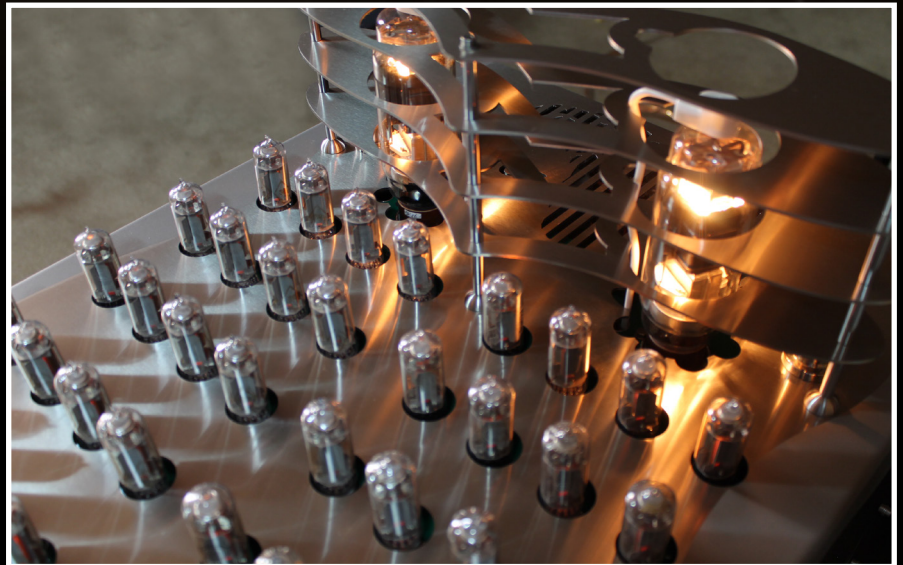
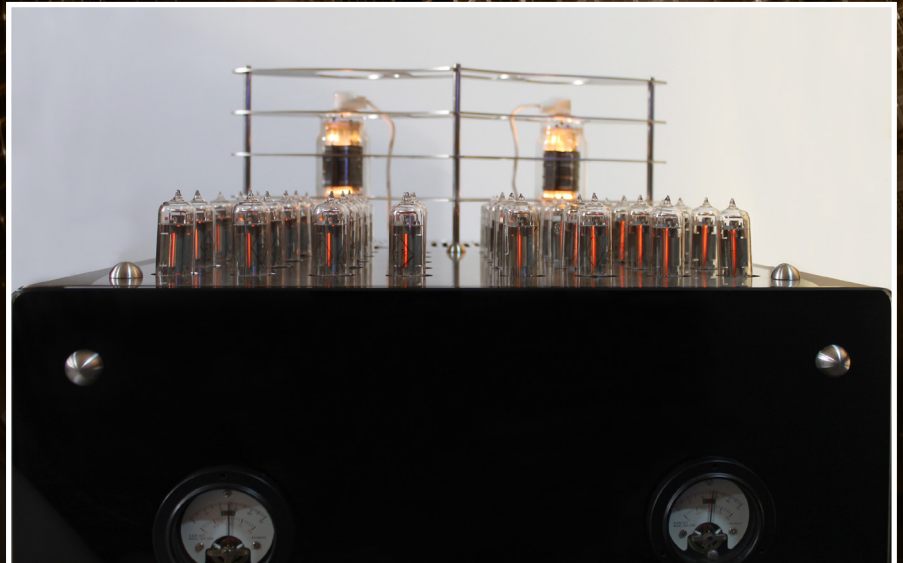
Our super sized power supply, provides 2.6A per channel steady state, with lowest noise possible. The double output stage power supplies come with double choke filtration and 6 high current high speed capacitors.

The driving stage, is a Directly Heated triode, the 814 tube, a big bottle tube that can deliver 10W of driving power to the output stage. The 20 tube's (pc) input capacitance need high current drive, to maintain high slew rate. Driving 20 output tubes per channel at high frequency needs a lot of current, and the 814 tube has a lot to spare. The driver tube is loaded with a choke, and is DC coupled to the output stage, for supreme slew rate numbers and transparency. The driver stage power supply is fed by separate transformers and is double filtered using chokes.

All heater and filament supplies have their own power transformer and are double filtered, using chokes and high speed capacitors.

Most OTL have a bad reputation of blowing expensive speakers, after they present DC potential after a malfunction. The Collatio amplifiers are bullet proof in terms of stability and speaker protection. Their output stage is AC coupled, so that no DC can be present at any times at the speaker terminal. You can break all tubes while in operation with a hammer, still no damage can occur to the speaker; It is really bullet proof. The capacitor used is a 5kg cap each, high performance film capacitor, with not so typical specs.

The Collatio 20W stereo amplifiers can be used as mono blocks, delivering 80W of OTL SE power with no modification from the user.



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