



Photo: Swissonor.ch

Construction box for big boys

One of the few arguments against integrated amplifiers is the reduced flexibility. What about a free configurable integrated amplifier?

Who invented it? The Swiss, of course. In that specific case, Urs Frei from Swiss company Swissonor, a small but fine manufacturer located in Geneva region, not far from the French border.

Initially active as supplier, they developed and produced a non magnetic cast iron platter for another ancient familiar Swiss product, the legendary friction-wheel driven Thorens TD124. To follow-up the sustained demand, a specific company for spare- and upgrade parts and other special equipment was founded. This effort results now in a worldwide unique amplifier concept in full tube design, the “AM System”. The base is a support frame receiving four modules, building an integrated amplifier tailored for individual needs. Actually, there are six modules available: The power block AM1 constitutes the basic operating element, available in configurations following the power amplifier. There is a choice of three types: The test equipment contains a pair of the most powerful module named AM2, based on a 6V6 push-pull, which gives 8 Watts per channel in an exclusive way. Alternatively, the customer can choose single-ended AM3 based on the type 6B4G, a close cousin to the well known 2A3, coaxing 3.6 Watts per channel. An all new module named AM4 is based on the “inevitably” 300B, the output power should be a little lower than the AM3 module. (*Translators note: The AM4 shall have an output power of 11 Watt for each channel*).

Concerning preamplifier, there is some choice, too. The AM5 module is purely passive transformer preamplifier for line sources exclusively, and the AM6 has a configurable full tube phone stage with two phone and three line inputs.

Our test equipment's name is "AM6221", the number indicates use of one power pack, two push-pull power amplifiers and the phone preamplifier. Our phone preamp is configured with one MM input and a MC input using Hashimoto MC transformers (*Translator's note: Hashimoto HM3*). Adding all these items, the final ticket is at about 8'000 EUR. Not cheap, but real Swiss handcraft and not available everywhere.

Let's begin analyse by the frame design: There's no less than a complex casting out of a non-magnetic cast iron alloy. This expenditure is different from screwing together some metal sheets. On that lead-heavily support, the modules are screwed respecting carefully decoupling, and wired by hand. A further modification is still possible, but needs some work.

The power block is basically situated on the right place of base frame. The solid power transformer, individually decoupled and damped, has five secondary windings delivering the raw voltages, where the high voltage is –according to rank- rectified by tube (here a GZ34) and filtered by a massive choke (the second heavy transformer-like block on the AM1 plate) combined with a special Mundorf foil capacitor. The supplies for driver and preamp are separately stabilised and filtered. Even the heater current supplies enjoy separate electronic helpers. This is a luxury concept, more than vintage, moreover a most modern amplifier solution. The power amplifier is a feedback-free design based on the sturdy 6V6 tube, less demanding on loudspeaker performance as the two single-ended designs. The manufacturer recommends all loudspeakers from a efficiency of 92 dB (1W) on, but our experience proved that far less is possible, too. According loudspeakers can be found in Swissonor product portfolio. Thanks to the highly sensitive power tube, the amplifier is electrically "short" needing only one double triode type ECC81 as phase splitter and driver. Alternatively, a variant uses ECC88S with 4 dB less gain. The output stage works in ultra-linear mode, the output transformer with his 14 windings is a real piece of splendour. As with all other modules, a gold-plated PCB constitutes the base of the electrical circuit.

The RCA/Cinch input sockets on the power amplifier is not connected in presence of a preamp module, as it is in our case. The AM6 hosts a phone preamplifier based on the good old Marantz Model 7 circuit, making use of three double triode tubes. Swissonor implements three ECC83. The phone section's 43 dB gain is comfortable for all moving magnet cartridges, while a pair of Hashimoto step-up transformers brings additional gain even for low-level cartridges. At choice, both HM-3 or HM-X are available.

Genuine chicken-head knobs serve as input switch and volume control on the module's top. The placement of all input sockets on the top is a fine choice and facilitates largely the set up's cabling.

As partners in the setup, we selected a pair of loudspeakers which should match without troubles for the amplifier. The do-it-yourself design "Coco 15" employs a coaxial driver issued from professional public address market and allows an efficiency of about 96 dB – so conditions are optimized for that kind of amplifier. As safe value for use with step-up transformers, a Miyabi-based MFSL C3.5 again delivered the input signal. Both choices matched perfectly, and the result was totally a class of its own. Paul Wilbur Klipsch (the famous loudspeaker designer) made the statement "The midrange is where we live", and hes was completely right. The Swissonor amplifier delivers an incredibly clear, clean, free and self understanding midrange, dominating the action in such an energetically and sovereign manner that the rest of the spectrum apparently stays in a second plan. I recommend to listen with this machine Nina Simone's fantastic Carnegie Hall Concert. Thanks to this setup, the listener is involved in such intensely manner that he gets shivers. Fortunately, there is no absolute need for such extreme loudspeakers to get into that incredible vividly and emotional sound. The Swissonor amp as temporary replacement for The Quad II Classic integrated amp played on the Progressive Audio Diablo and see- it works, too. The Quad acts somewhat larger and more eased at the extremities of the spectrum, but does not offer in the same measure this unique clarity and expression. Additionally, the Swissonor amplifier appears extremely well structured and clean; his low noise level does the rest. Even with full open volume, there's only a slightly enhanced noise level – well understood on MC phone input. Certainly not an amplifier for heavy metal freaks, but for voice aficionados there's hardly a more impressive solution.

End of report.