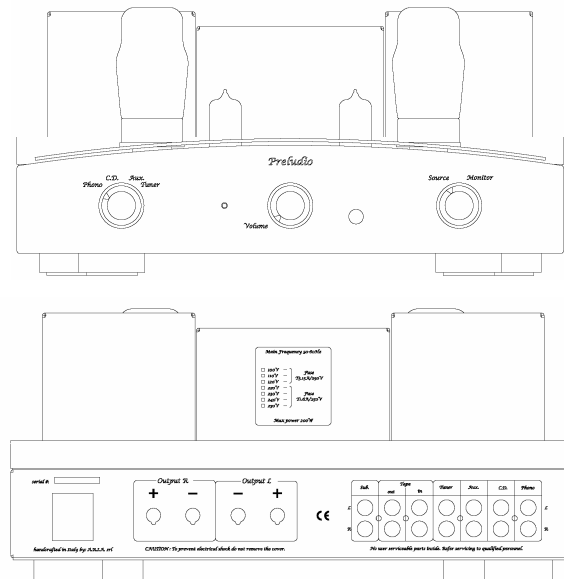


*Preludio*

To complete the series of all-tube integrated amplifier, including successful models like the *Performance* and the *Sinfonia*, **Unison Research** introduces the *Preludio*.

This new amplifier, though maintaining the distinctive technical elements, sound characteristics and winning look of the preceding models, features original solutions which are the result of Unison Research great design and production experience gained over the years.

### *Introducing the Preludio*



As the other models of the same series, and faithful to a consolidated Unison tradition, the *Preludio* is an integrated amplifier.

Integration offers several advantages, both in terms of simplicity of use and achievable sound quality: an integrated amplifier

requires less cabling than its separate counterparts, thus allowing a substantial reduction of the effect of cable impedance on sound timbre and dynamics, and a significant saving in production costs as well.

On the other hand, designing an integrated amplifier is much more critical and challenging than designing a separate pre-power combination: let us mention, for example, how carefully all the possible interferences between different components and different stages (power supply, control, preamplifier and output stage) have to be considered and limited.

Our experience in the design and production of integrated amplifiers has grown over the years, allowing us to create successful models which are still today valuable classics, like the widely renowned *Absolute 845*.

The *Preludio*, though small in size, reaches an output power of 14-15W per channel.

As the *Performance* and the *Sinfonia*, the *Preludio* is characterized by the presence of two large heatsinks mounted on the sides, which are required by the high voltage stabilized power supply circuits, and by a wide stainless steel cover. The cover material is amagnetic and has low thermal conductivity: it has been chosen to prevent the heat generated by the two KT88 from reaching the circuits located below, thus improving the stability, the sound quality and the overall reliability of the system.

### *Details*

The power supply of the *Preludio* is based on a single toroidal transformer, especially designed to minimize the magnetic flux dispersion.

In an audio amplifier, the anodic voltage should ideally be supplied by a battery, but this is obviously not possible for a

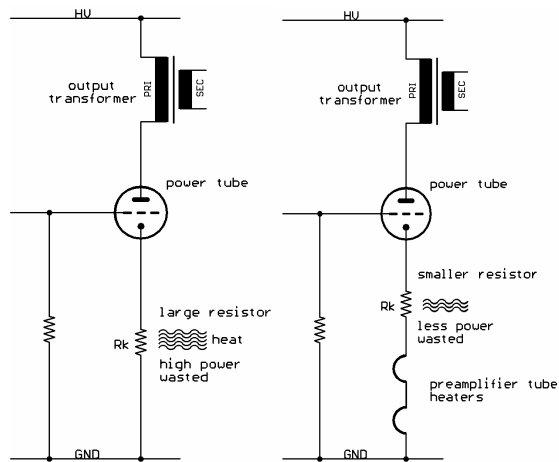
number of reasons: high costs, short life-expectancy, large size and weight, etc.

We considered this problem in depth, in the attempt to obtain a power supply stage whose electrical characteristics were the closest possible to those of a battery bank. We found

an excellent compromise with a special anodic power supply circuit which features an output capacitance much higher than usual.

The dc current for the preamplifier stage tubes heaters is supplied , as in the *Sinfonia*, retrieving a part of the anodic voltage of the power stage tubes: the correct level of the applied voltage is ensured by a dedicated regulator circuit.

This interesting solution allows to use the energy that otherwise would be dissipated in the power stage valves cathode resistances. In this way, in addition to a significant improvement of the system efficiency, it is possible to reduce the dimension of the components, to optimize the circuit layout and to limit the heat produced inside the amplifier.



Moreover, this solution imply the simplification of the power supply transformer through the elimination of one secondary winding.

Conversely, the power stage tubes heaters receive an ac current previously regulated by balancing nets.

As far as concerning the amplification circuit, each channel of the *Preludio* is constituted by a preamplifier stage, a power stage and a dedicated output transformer.

Preamplifier and power stage drive are based on a double triode ECC82. This valve guarantees excellent linearity and nearly complete absence of odd order harmonic distortion components.

Each amplification stage is entrusted exclusively to valves, and all operate in pure A class.

Special attention has been dedicated to the design of the output stage, based on two KT88 tubes: we conceived and tested in our laboratory an original circuit which, through the control of the KT88 bias, ensures a real time compensation of the parameters affected by drift.

This solution guarantees the best sound performances even after years, and contributes to slightly reduce the time it takes to all the tubes to warm up after switching on and reach the optimal temperature.

Since the beginning, Unison Research has been directly involved in designing, developing and building the output transformers for its devices. We feel that valve amplifiers performances are closely connected to the quality of these complex components. Thanks to a particular elaboration of the output transformers it has been possible to design for the *Preludio* a power stage constituted by a single KT88 per channel in single-ended ultra linear configuration, in which the KT88 (beam power tetrode) operates with good approximation like an ideal triode.

The *Preludio* has a microprocessor-based circuit which allows the user to control the volume using the remote IR handset. The analogue volume regulation is operated by a high quality ALPS RK27 stereo motorized potentiometer.

The output terminals are constituted by six gold plated universal connectors, allowing the connection of 4 and 8 Ohm impedance loudspeakers.

The input connectors are also high quality and fully gold plated.

In *Preludio* nothing has been left to chance: from the choice of components, the control knobs and the wood parts, to the design of the chassis and the circuits boards.

Control knobs are machined from solid amagnetic stainless steel. Thanks to their weight, mass and balance, they provide smooth and precise control when operated manually.

The wood parts, besides the visual appearance function, also play another carefully calculated role: they contribute to damp out induced resonance in the metal chassis. Thanks to this structural damping the valves themselves, which like all vacuum tube devices are susceptible to microphony, are much less liable to generate unwanted resonance-related effects. For the best reliability and long term musical quality, all the components used in the *Preludio* have been chosen with care: from the non inductive resistors and the filter capacitors, to the pure ceramic valve bases and the vetronite printed boards.

The dimension, distribution and lay out of the PCBs have been accurately studied and optimized to limit electrical disturbances and prevent components overheating.

*Technical characteristics*

Type: valve integrated amplifier

Valves complement: 2 x KT88, 2 x ECC82

Operating mode: pure A class

Power stage: single-ended ultra linear

Output power: 14 W per channel

Output impedance: 4 ohm e 8 ohm

Input impedance: 47 Kohm

Inputs: 4 line, 1 tape

Outputs: 1 tape

Power consumption: 150 W max

Dimensions: 374 mm, 350 mm, 170 mm