

SA PPA-1200 CHAMP-AMP[®]



“A Cum Laude Graduate”

- **Intelligent power amplifier**
Programmable for different speaker systems
- **Microprocessor control**
All settings can be stored and recalled as presets
- **Full remote control possible**
Through SA-net and PC fitted with an SA card
- **Ingenious software**
Updates and diagnosis by regular telephone lines
- **Integrated ‘automatic logging’**
A log-book is filed in internal memory
- **2 × 600 W RMS in 4 Ω**
Both channels driven simultaneously
- **Real power, not peak power!**
Maximum power for unlimited periods.
- **AEC (Auto Energy Control)**
Unique **non-limiting** protection circuitry
- **DDC (Dynamic Damping Control)**
Super high damping by ultra fast electronic circuitry
- **Selectable built-in electronic X-over**
Bessel filter design for superior transient response



SA PPA-1200 power amplifier

The SA PPA-1200 is a sophisticated, reliable power amplifier with microprocessor control for all functions. Fitted with dual power supplies, it is capable of delivering $2 \times 600 \text{ W}$ in 4Ω or $2 \times 900 \text{ W}$ in 2Ω with superb sonic quality, for an unlimited period. Even for months if you want, so this is **real power, not peak power!** In bridge mode, it can deliver even more power; 1200 W in 8Ω or 1800 W in 4Ω . A built-in two-way electronic 24 dB/oct . Bessel crossover can be activated to suit "Bi-amping" of many speaker systems. Crossover frequency is fixed at 1 kHz , which is the optimum for use with SA Compact Drivers. Other frequencies are available on special order.

Unique microprocessor control

For total flexibility, a microprocessor is used to achieve the following:

- Control of all functions which are controlled on conventional amplifiers with vulnerable potentiometers and switches, like input levels, input ground lift, input phase, system ground lift, stand-by and bridge mode.
- Control and/or display of values of all relevant internal parameters, like heatsink temperature, average power, peak power, maximum power and power amp on delay. Display only for overload, DC on output and overheating. Led indication for signal present, clip and power limit and selected display status.
- Protection for the amplifier and connected loudspeakers.
- To offer, through the SA-net, full remote control of up to 250 PPA-1200 amplifiers by any IBM® or compatible PC, fitted with the SA interface card.
- To store and recall PC generated presets of all settings. Presets for all SA's loudspeaker systems are already stored in the factory.

All this is achieved at **no additional costs** by using the latest microprocessor technology in combination with ingenious software. This also facilitates diagnosis and program updates through **regular telephone lines** without removing even a single screw! Integrated "logging" software enables rental companies to establish exactly when amps have been used, how long, at what levels, etc. A back-up battery is built-in to maintain the memory and to return all settings to their previous values, after power switch-off or a mains failure.

A system lock, with individual programmable code, is added to prevent unauthorised alterations of any setting. This lock does not affect the actual operation of the amplifier.

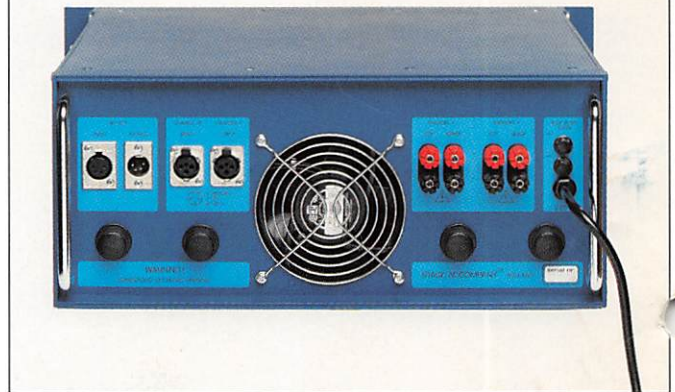
Auto Energy Control (AEC)

AEC is a very sophisticated protection against clipping, average power overload and peak power overload, designed to maintain the full dynamic range of the programme material. The microprocessor continuously measures output voltages and output currents of the amplifiers. With this information it calculates average power and peak power and compares these levels with previously stored levels. When an overload is detected, the input gain is reduced proportionally to the amount of overload. Once the overloading has disappeared, the gain is automatically restored to the original value. Attack and release time depend on the type of overload and are selected to guarantee inaudible protection. Consequently, this circuitry is much more effective against loudspeaker damage than a limiter and has the advantage that the sound quality is **not influenced** at all!

Built-in presets

The PPA-1200 has a number of presets built-in to get an ideal match for operation with several Stage Accompany loudspeaker systems. These presets include AEC settings for optimum performance and maximum protection as well as crossover level settings for a perfect balance between low and high frequencies. By using a PC and SA-net interface, the user can modify these presets, or create new ones.

Rear view of the PPA-1200 amplifier



Dynamic Damping Control (DDC)

DDC comprises special circuitry that measures the loudspeaker cone movement through extra sensor cables. This is compared with the amplifier's input signal and, if discrepancies are registered, extremely fast corrections are made. This ensures that the amplifier has an almost infinite damping, resulting in an exceptionally precise sound reproduction.

Technical specifications

Frequency response:	10 Hz - 60 kHz, (300 W/8 Ω , - 3 dB)
Input sensitivity:	1.55 V for maximum output (49 V)
Input impedance:	20 k Ω , (each leg)
Continuous output power:	$2 \times 350 \text{ W}$ in 8Ω , 20 Hz - 20 kHz $2 \times 600 \text{ W}$ in 4Ω , 20 Hz - 20 kHz $2 \times 900 \text{ W}$ in 2Ω , 20 Hz - 20 kHz 1200 W in 8Ω , bridge mode 1800 W in 4Ω , bridge mode
S/N ratio:	> 105 dB, 20 Hz - 20 KHz
Common mode rejection:	> 66 dB, 1 kHz > 55 dB, 20 kHz
Channel separation:	> 90 dB, 1 kHz > 80 dB, 20 kHz
THD:	< 0.005 %, 300 W/8 Ω , 1 kHz < 0.01 %, 300 W/8 Ω , 20 kHz
IMD:	< 0.01 %, 300 W/8 Ω , 20 Hz - 20 kHz
Slew rate:	> 40 V/ μ s
Damping factor:	> 10000, 1 kHz (with DDC) > 300, 10 kHz (with DDC)
Dimensions:	19", 4 HU high, 440 mm deep
Weight:	33.7 kg

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Stage Accompany reserves the right to change specifications without notice. As a result of constant research SA products may differ from published description but will always equal or exceed the specifications stated above.

Stage Accompany... the name for quality!



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