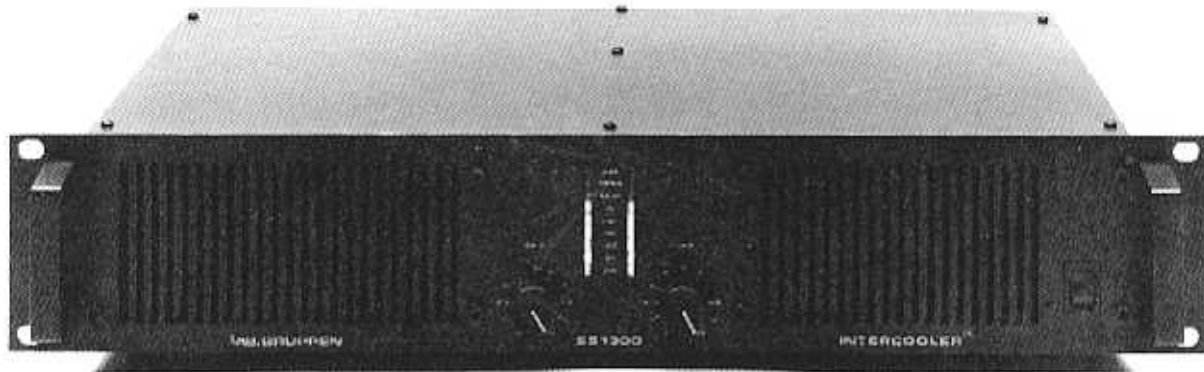

SS 1300

Power Amplifier



9 kg
2 × 650 W
19" × 2 U × 330 mm
Full power: 20 Hz – 20 kHz

Do you want to know more? Read on!

LAB. GRUPPEN

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Power Supply

A common way today to reduce the weight and size of the power supply, is to use high frequency switch technology and ferrite transformers instead of heavy steel transformers and large electrolytes.

The technology is used in the computer industry for several years. And now we have applied it to the SS 1300.

In contrast to our competitors, who use so-called push-pull converters which require current limiting, we have designed the SS 1300 to work by the principle of injecting magnetic energy during a pulse time which is separated from the output charge current pulse. Owing to this no current limitation is needed and high peak powers and good bass response are guaranteed.

Output Stage

The SS 1300 has a conventional bipolar output stage, a technology used for many years thanks to its reliability and sonic excellence. We have applied this technology in several of our other power amplifiers, for example in the SS 1400.

The output stage has a high current capacity to meet the demands of today of low distortion and large signal-noise ratio, which are needed to reproduce digitally recorded or processed programs.

The SS 1300 is thus neither "Digital Conversion", nor "Pulse Width" modulated, and it doesn't have a multiple-level power supply. Up to now constructions which are based on these principles have shown too high distortion and noise, or too bad bass response.

VHF protection (Very High Frequency) protects the loudspeakers against strong non-musical signals above the audible area.

Thermal protection the SS 1300 to by works separate channel.

Two-channel bipolar transistor amplifier. The output stage is constituted of twenty-four 250 W transistors.

MOS switch array.

Switch mode power supply stabilized to provide full power if the AC line varies between 180 V and 240 V.

High voltage capacitors.

Pulse width processor, in a custom MSI integrated circuit with over/under voltage protection, "Magnetic Flux Sense"™ circuits and soft start.

Output power set

Snubber network

DC voltage

Output
2 x 350 W into 8 ohms
2 x 650 W into 4 ohms
2 x 800 W into 2 ohms

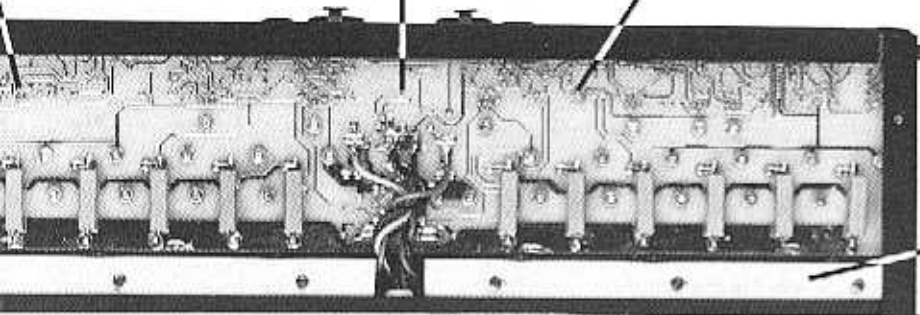
Gain input sensitivity, normally 0 dBu (0.775 V) for 650 W/4 ohms, press to achieve +7 dBu (1 V for 100 W/8 ohms).



ion prevents
overheated,
y for each

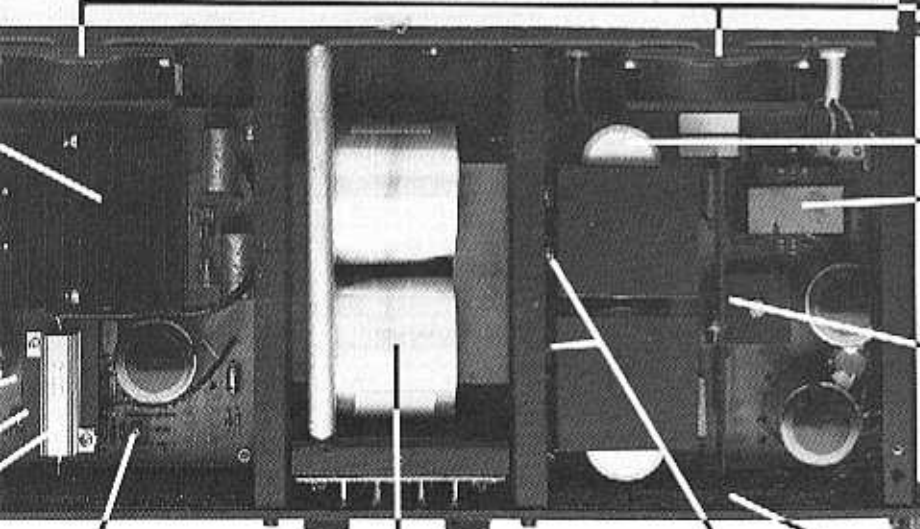
DC voltage protection of
Crowbar-type, works in that
way that the output is short
circuited to protect the load.

Short circuit protection, a
dynamic current limiter
which permits very high
peak currents, but yet holds
the transistors within the
so-called "Safe Operation
Area". The SS 1300 manages
longterm short circuit
operations.



Intercoler[®] system made of
massive copper, (copper
conducts heat twice as good
as aluminium).

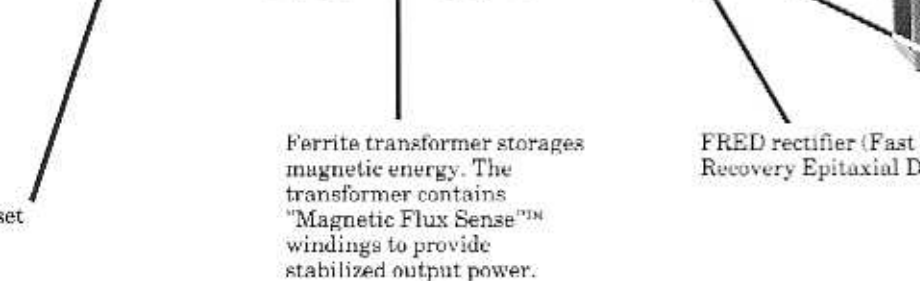
Two proportional speed fans.



80 V DC capacitors

AC line noise filter

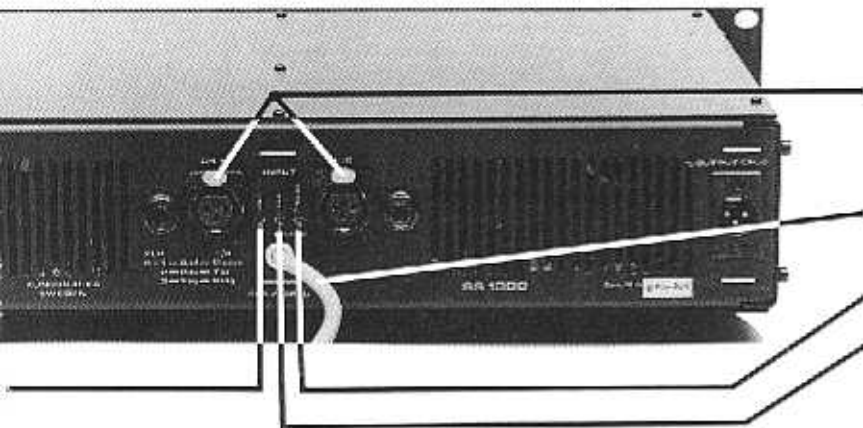
Soft start with no power line
current inrush. Up to ten SS
1300 may be connected to a
single 10 A AC outlet.



Ferrite transformer stores
magnetic energy. The
transformer contains
"Magnetic Flux Sense"[™]
windings to provide
stabilized output power.

FRED rectifier (Fast
Recovery Epitaxial Diode).

Foam filter for front-to-back
cooling.



Electronically balanced
inputs XLR-type, connected
according to IEC 268
standard. 1/4" TRS jacks.

Operating voltage 130 V-
240 V AC. Minimum start
voltage 190 V AC.

Phase reverse of channel B. } set SS 1300 for
Link of channel A and B. } bridge mono mode

SS 1300 Specifications

MAX OUTPUT POWER:		
20 Hz – 20 kHz at 0.1% THD	into 8 ohms	325 watts
	4 ohms	600 watts
	2 ohms*	700 watts
Bridged Mono	8 ohms	1300 watts
	4 ohms*	1700 watts
SPEAKER PROTECTION:		
Each channel is separately fuse protected on positive and negative power supply branch. Electronic short circuit protection with progressive characteristic. Output power will be progressively reduced below 1,3 Ohms. The power amplifier can be run in short circuit for a long time without damage and is open circuit and mismatch proof.		
DISTORTION:		
THD 1 watt – 600 watts	into 4 ohms	< 0.08%
DIM 30 600 watts	into 4 ohms	< 0.02%
SMPTE 300 watts	into 4 ohms	< 0.05%
POWER BANDWIDTH:		
Slew rate		10 Hz – 50 kHz 40V/ μ s
NOISE:		
Below full power		< -110 dBA
INPUT SENSITIVITY:		
Switchable		0.775 or 1.8Vrms
INPUT IMPEDANCE:		
		20 kohms balanced
CHANNEL SEPARATION:		
		> 90 dB at 1 kHz > 70 dB at 10 kHz
FRONT PANEL:		
Gain Controls (2)		Channel A-B
Output Display Type:		Fast peak-slow release, (2) Red LED's + 10 Green LED's
Temp Indicator		90° at heatzink (2) Yellow LED's
VHF Indicator		(2) Yellow LED's
On Indicator		(2) Green LED's
AC		On/Off switch
REAR PANEL:		
Input Connectors		(2) XLR-type 3 pin female (2) 1/4" jack
Output Connectors		(2) XLR-type 3 pin male
POWER:		
Full output power		180–240 VAC
Minimum start voltage		190 VAC
Operating voltage		130V–240VAC
PHYSICAL DIMENSIONS:		
mm (inch)		483 (19") W × 88 (3 1/2") H × 330 (13") D
WEIGHT:		
		9 kg (20 lbs)

* Though the SS 1300 can drive a 2 ohm load, we recommend you to keep the load impedance on 4 ohms or above in professional applications, which demand large amounts of continuous power.

LAB. GRUPPEN reserve the right to alter functions or specifications without prior notice.

Dealer:

LAB. GRUPPEN

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