

# SENTEC

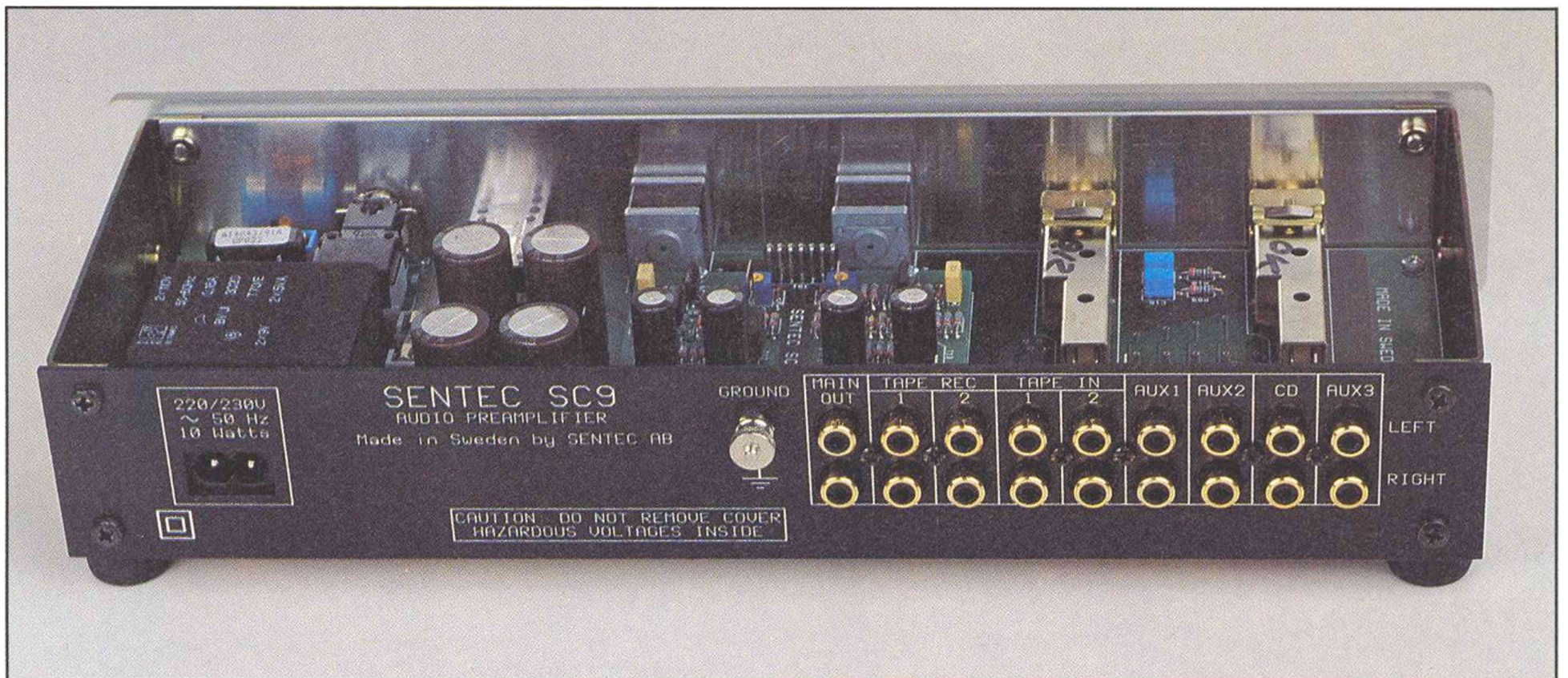
SC9

LINE-LEVEL PREAMPLIFIER



SENTEC AB, a Swedish audio laboratory, with more than twenty years of experience in audio designing and manufacturing has created an innovative line-level control amplifier.

It combines an outstanding musical quality and a truly uncolored tonal reproduction in a very compact and classical design.



The SC9 is an all discrete design using high quality long-life components in a carefully wellthought circuit layout. As we do recommend short speaker cords with the power amplifiers close to the speakers, the SC9 utilizes class-A cable-driver main output stages which are able to feed long signal cables of any brand.

Even hard-to-drive laboratory grade coaxial-cables, of more than 10 meters of length are recommended without any influence on the sonic performance. Low impedance cable terminations, if preferred, can willingly be used.

A capacitance bank of totally 29.000uF, in a zener shuntregulated power supply, provides a clean power source for the monolithic low noise dual JFET input amplifiers. Together with a carefully designed circuit layout this results in a extremely high signal-to-noise ratio of 110 dBA refered to the 1 Volt nominal output.

Through the use of double sided glass-reinforced through-plated circuit boards with a decoupled ground plane, separated from the signal ground path, the SC9 is very insensitive to radio interference carried by the incoming signal cable-shields.

A built in highly effective mains filter will supress any interference from mains carried noise and spikes.

In order to achieve the shortest possible internal signal path and liberty in furnishing, we have built the SC9 in a very compact and sturdy cabinet for easy placement close to your listening position.

**SPECIFICATIONS:**

6 Line level inputs with nominal sensitivity of	200 mV
Separate tape recording selector with 2 rec out	200 mV
Input impedance all inputs	10 KOhms/330 pF
Nominal output with IEC-load (10 KOhms/1000 p)	1 Volt
Output impedance purely resistive	100 Ohms
Maximum output voltage with IEC-load	5,6 Volts
Maximum output voltage with 100 Ohms load	2,8 Volts
Signal-to-noise ratio refered to nominal output vottage	110dBA
Dynamic range with any load impedance more than 75 Ohms	125 dBA
Minimum slewing-rate at more than 75 Ohms load	25 V/uS
Harmonic and intermodulation distortion	less than 0,05%
Frequency response, source impedance less than 600 Ohms	200 KHz
Power bandwidth at more than 75 Ohms load	600 KHz
Power consumption 220/240 Volts 50/60 Hz	max 10 Watts
Overall dimensions H 66, W 338, D 150 mm	
Net weight	2 Kgs (4,4lbs)

## *SENTEC AB*

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# SENTEC

PA 9  
MONO POWER AMPLIFIER



SENTEC AB, a Swedish audio laboratory established in the late 1960s, have refined simple and straight-forward circuitry to state-of-the-art sonic quality in the No. 9 Power Amplifier.

The SENTEC PA9 is a monaural power-amplifier that sets new overall standards for medium-power class AB musical performance.

The aim for the development of the PA9 was to create a power amplifier without coloration or its own "sound", totally transparent to any musical signal at the input, and with the ability to reproduce excellent tonal quality and fragile details.

To achieve this superb sonic quality in a cost effective way, we have optimized an innovative all discrete circuit topology, using high performance quality components, in a carefully designed layout. We also optimized the signal path and built a very compact and simple, but pleasant looking and practical cabinet to accommodate the delicate electronics.

In addition, the true mono-block realisation gives also complete electrical independence and choice of placement, e.g. close to the speakers, for the best possible imaging and shortest possible speaker cords.

The use of long speaker cords, independent of make or price, gives a serious degradation of sound quality, especially in conjunction with complex impedance modern speaker systems.

The SENTEC PA9 is designed to drive all types of acoustical transducers, irrespective of impedance complexity, with a nominal impedance of around 4 Ohms or more.

In sophisticated multi amplified speaker systems, the PA9 is also the ideal means of achieving further sonic refinements in a very cost effective fashion.

The PA9 is a completely complementary design with a dual differential input stage followed by a dual complementary differential single-ended voltage gain stage operating at high current for class-A operation.

The output current-amplifier consists of 6 selected and matched 12 Amp. Darlington devices, to achieve low open-loop output impedance and linear high-current capacity.

This ensures very smooth output transitions with apparently no crossover or switching distortion, even at high-current output conditions.

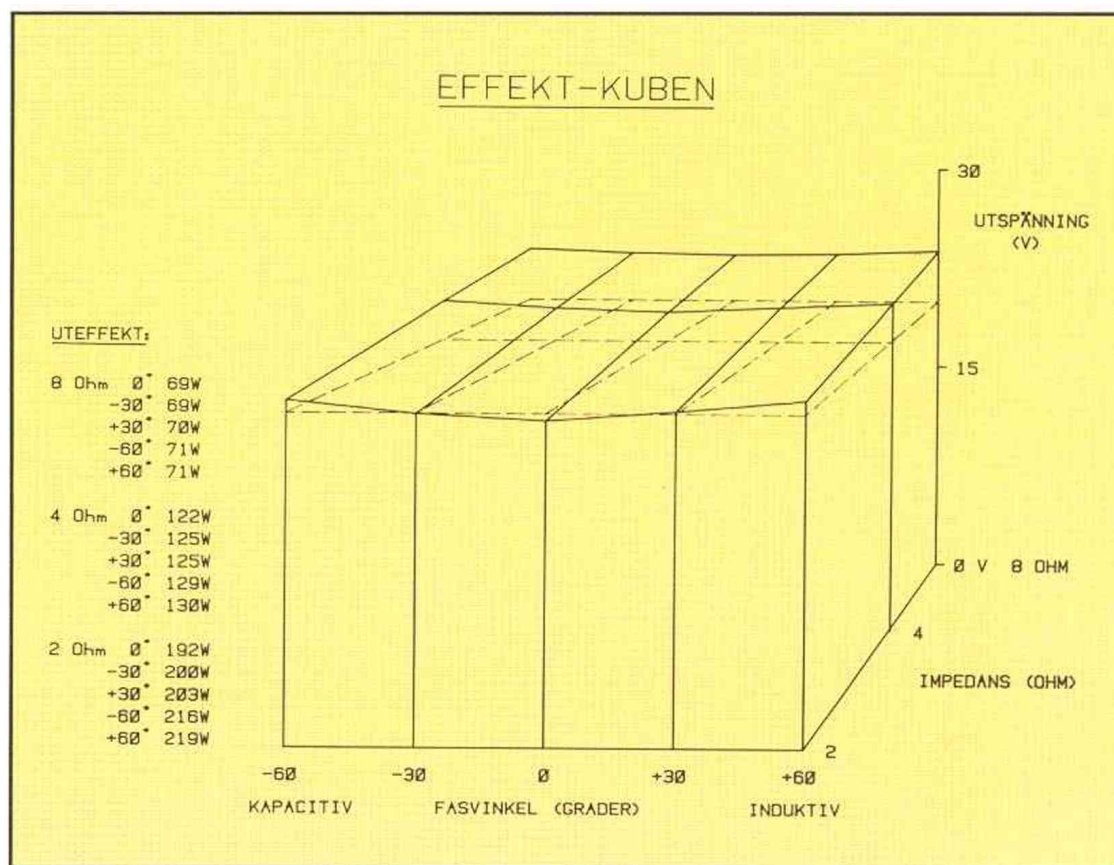
In the power supply a conservatively rated 180 Watts toroidal transformer feeds a pair of switching-grade low ESR capacitors of a total capacitance of 30.000 uF through a 6 Amp. full-wave bridge rectifier.

An excellent and well-thought grounding system, which does not inject internal loop-currents or hum in the signal ground-path, assures high immunity to noise and mains interference.

The SENTEC PA9 is carefully temperature compensated and will give its full performance after an unusually short warm-up period.

Protection of the amplifier is moderately utilized, by means of over current protection circuitry in combination with internal fuses, in order not to interfere with any musical transient signals under complex and severe conditions. Gold-plated heavy duty output terminals will accept 4 mm banana contacts or up to 4 mm speaker cables in binding posts.

As these design details and impressive specifications cannot describe the exceptional sound quality of the PA9, we recommend you not only to compare specifications by figures, but also to try and get an opportunity to listen under relaxed conditions to your favourite music at your SENTEC representative.



SPECIFICATIONS:	
Rated continuous power FTC	8 Ohms 60 Watts 4 Ohms 100 Watts intermittent 2 Ohms 150 Watts
Output impedance	less than 0,1 Ohms
Slew rate 4 to 8 Ohms	more than 50V/uS
Power bandwidth -3 dB	5Hz to 150KHz
Phase linearity 20 Hz to 20 KHz	max 3Deg.
Small signal bandwidth 3 dB	2Hz to 200KHz
Distorsion THD 8 Ohms 1 KHz	less than 0,03%
4 to 8 Ohms, 20 Hz to 20 KHz	less than 0,06%
Input sensitivity	approximately 1 Volt
Input impedance	12K Ohms 1nF/3300hms
Signal to noise unweighted	110dB
Signal to noise A - weighted	120dB
Voltage gain	26dB
Total amount of feedback	36dB
Open-loop bandwidth -3 dB	23KHz
Maximum power consumption	200Watts
Dimensions	H76, W 200, D 300mm
Net weight	4Kgs (8,8 lbs)

## SENTEC AB

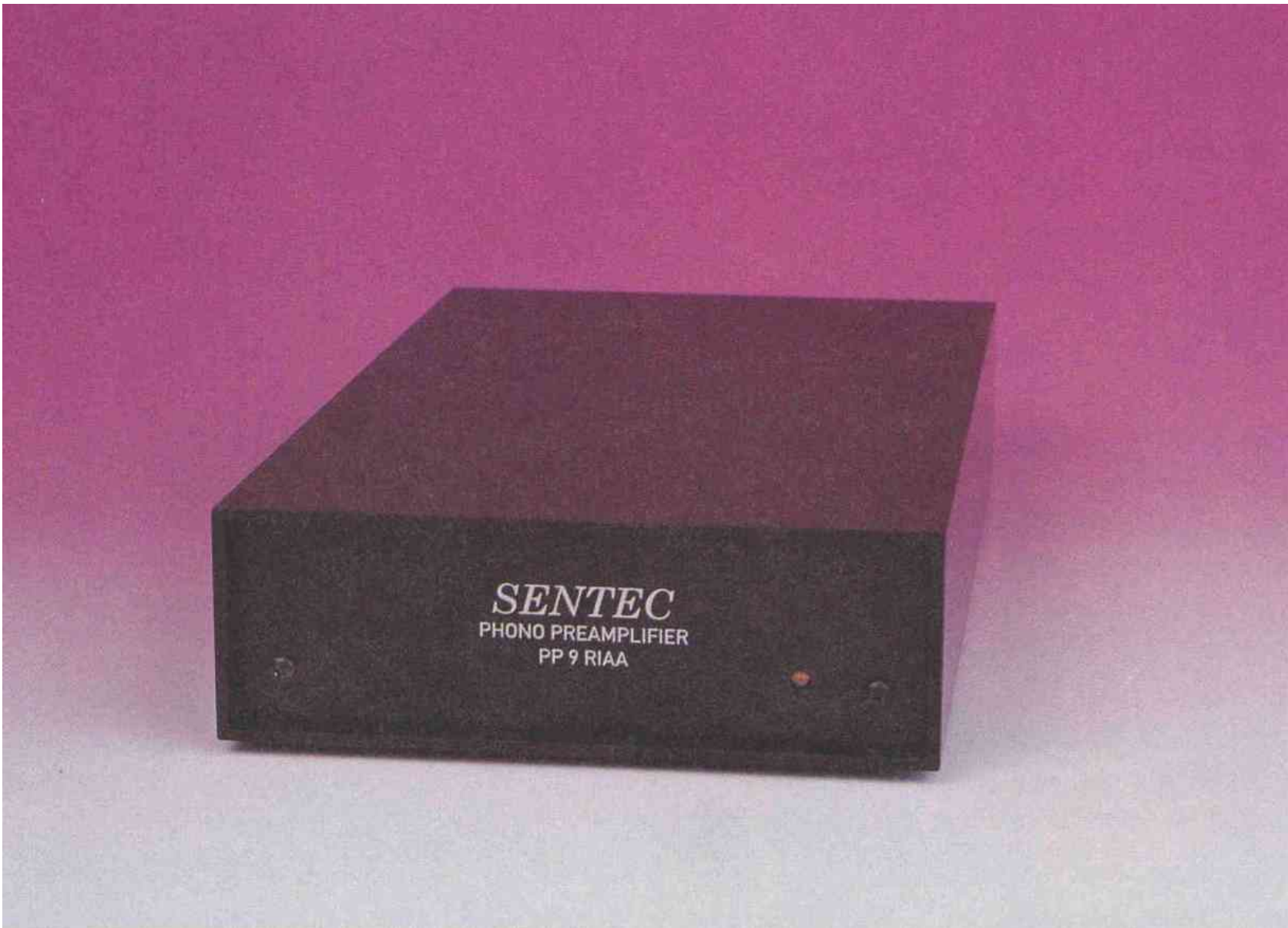
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# SENTEC

PP9 RIAA  
PHONO MM/MC PREAMPLIFIER



SENTEC AB, a Swedish audio laboratory established in the late 1960s is proud to present the all new, superb quality MM/MC phono preamplifier PP9 RIAA.

Through intensive research we have refined an unique circuit topology and a design layout that will set new standards in musical accuracy and overall performance.

As the PP9 RIAA has no outside controls or power switch, it can be located anywhere between the record-player and control amplifier, away from external magnetic hum fields. In order to achieve short signal paths and negligible crosstalk, we have housed the PP9 RIAA in a very compact extruded aluminium case.

In its basic form the PP9 RIAA contains a detachable moving-magnet input board, MM9, with customer selectable R/C loading possibilities. The add-on moving-coil head amplifier board, MC9, is designed as a complementary transconductance amplifier. It performs like an "ideal electronic transformer" and will replace the MM9 input board, if that option is preferred. Gain and resistive loading are customer selectable on the MC9 board.

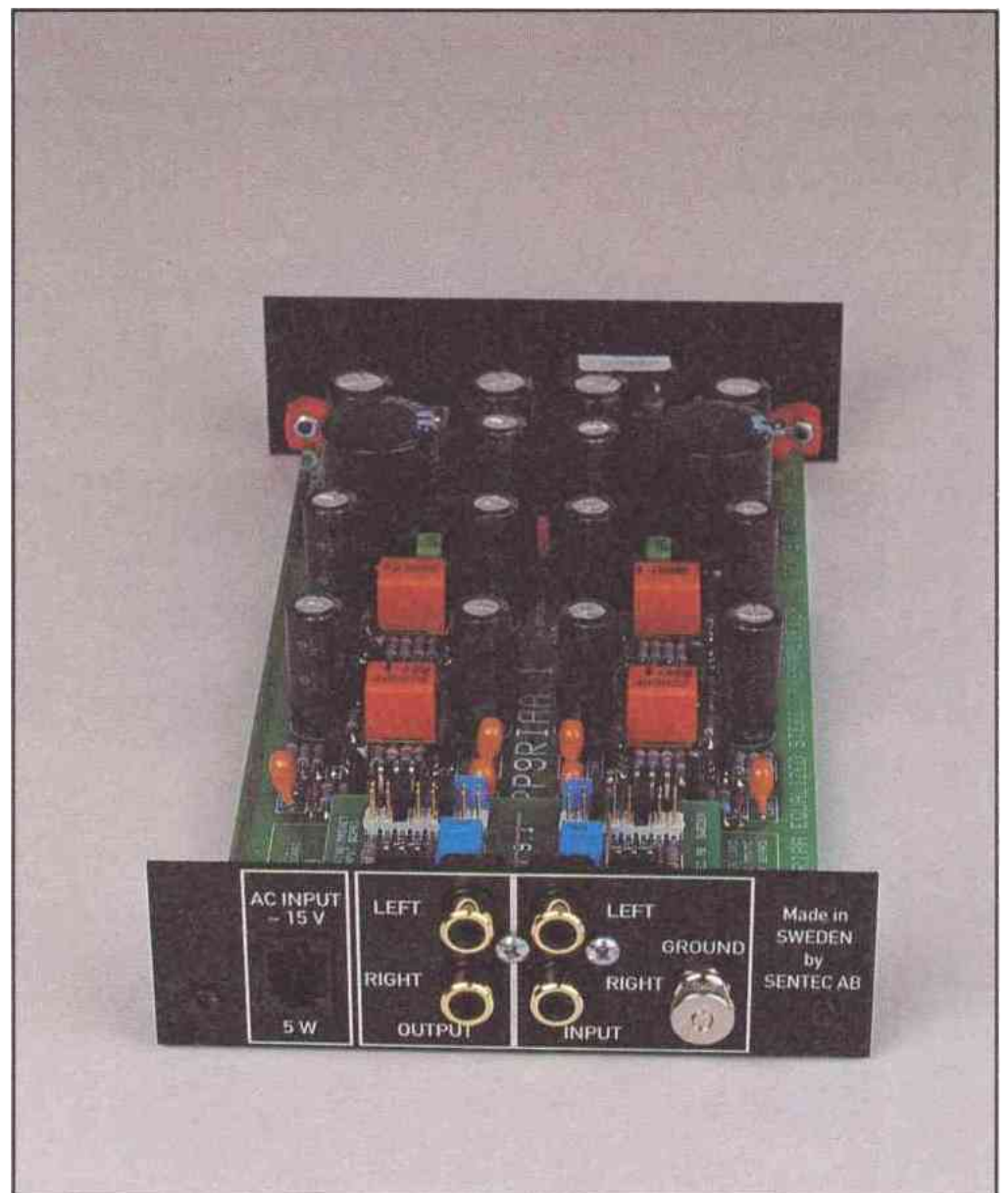
All internal/external signal and power connectors/switches are of high quality gold plated types for lowest contact resistance and trouble free operation.

The PP9 RIAA uses, per channel, two monolithic dual JFET input discrete built class—A amplifier stages with semi passive high precision RIAA-correction and a DC servo-loop around the second stage. A total of twelve ultra low noise monolithic dual transistors are used for signal amplification in the PP9 RIAA.

A state-of-the-art balanced and mains interference filtered power supply with passive regulators, fed by an external mains transformer, is contained in the cabinet.

Double sided GR-epoxi through plated industrial-grade circuit boards are extensively used throughout in the PP9 RIAA.

As the PP9 RIAA will improve the level of musical performance in almost any existing audio amplifier combination, it will be a great upgrade for the real analogue enthusiast and bring a new life to your valued record collection.



#### SPECIFICATIONS:

Moving magnet nominal input sensitivity at 1 KHz	2,3 mV
MM input impedance load	10, 30, 50 or 75 KOhms
MM input capacitance load	100, 200, 320 or 430 pF
MM input noise level ref. to 10 mV input at 1 KHz	-92 dBA
Total dynamic range of MM input at 1 KHz	107 dBA
Moving coil nom. input sensitivity at 1 KHz	100, 200 or 400 uV
MC input impedance load	50, 100 or 1000 Ohms
MC input capacitance load	1000 pF
MC input noise level ref. to 1 mV input at 1 KHz	-88 dBA
MC dynamic range at 1 KHz (due to gain setting)	96 to 108 dBA
Nominal output level with IEC-load (10KOhms/1000pF)	200 mV
Output impedance, purely resistive	680 Ohms
Frequency resp. + - 0,2 dB accuracy acc. to RIAA	20 Hz to 80 KHz
Power consumption 220/240 Volts at 50/60 Hz	max 7 Watts
Overall dimensions	H 44, W 120, D 230 mm
Net weight (including transformer)	1 Kg (2,2lbs)

## SENTECAB

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# Loud and Proud

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## SENTEC AB



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MUSIC

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SERVICE

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