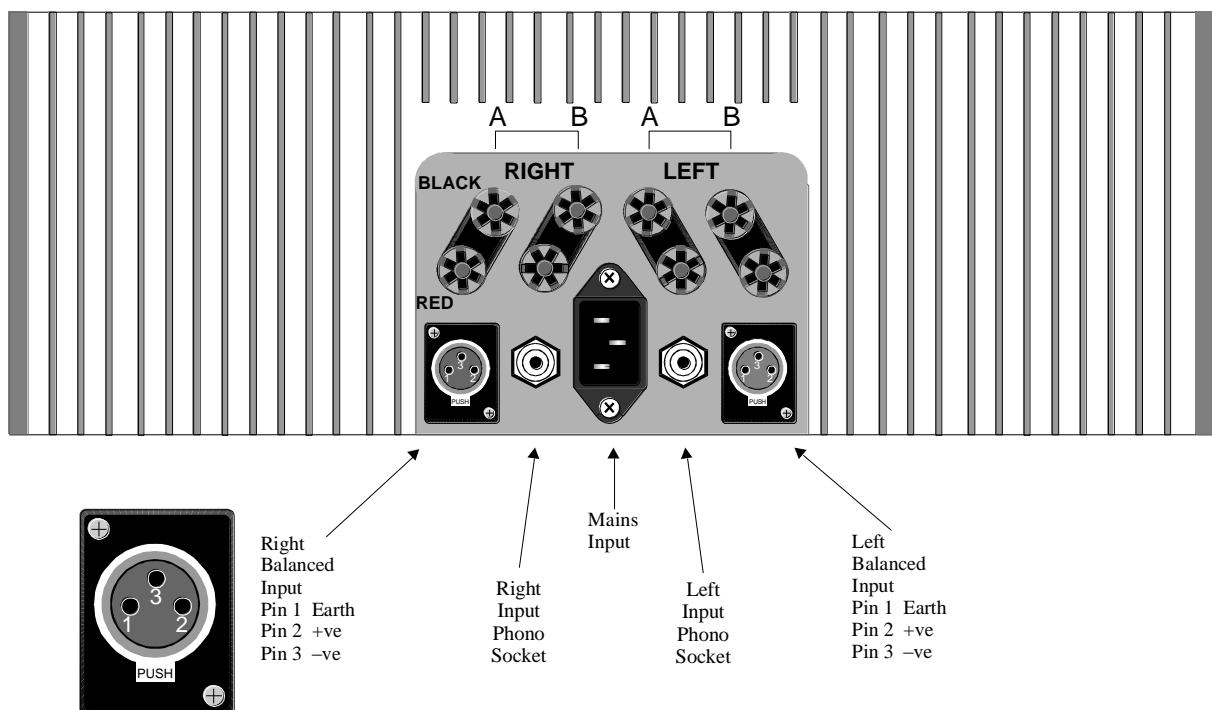




# SPM 1050 POWER AMPLIFIER MANUAL





## OPERATION

When the amplifier is connected to the mains the LED immediately above the power switch will indicate red (standby). When switched on, this LED will change to illuminate green (operational). There will be a delay of about 12 seconds before the output signal is fed to the loudspeakers, with the subsequent illumination of the blue Status LED. This is to allow the amplifier to stabilise.

In the event of a major overload or a short circuit across the output of any channel, the green "power on" LED will indicate trip by fading and immediately re-illuminating to red standby mode. The amplifier will shut down automatically and it should then be switched off. When the fault condition has been rectified, the amplifier can be switched on and will power up as normal. A minimum period of eight seconds must be allowed to elapse between switching off and switching on again. This is to allow the power supply protection circuitry to re-set itself.

There are no user serviceable parts in your SPM 1050. It should only be serviced by Chord Electronics Limited or their expressly approved Service Agents.

## CARE AND CLEANING

The SPM 1050 requires no special care other than common-sense. Spray window cleaner (clear type) may be used (if first sprayed on to a soft cloth) to remove surface blemishes such as finger marks from the metal casing or the piano black finished wooden side cheeks. Never spray directly on to the amplifier and never use abrasive cleaning materials, use only a lint free soft cloth as described.

## SERVICE INFORMATION

**WARNING** - The power supply components within this amplifier are designed to be operated at lethal voltages and energy levels. Circuit designs that embody these components conform with applicable safety requirements. Precautions must be taken to prevent accidental contact with power-line potentials. Do not connect grounded test equipment.

## NEW TECHNOLOGY

Much of what Chord has achieved is the result of using innovative, leading edge technology. For example, we believe that we are unique in using the technique of 'dynamic coupling' of the power supply rails. Whatever transient demand is presented to the amplifier stages, the positive and negative rails remain in perfect equilibrium, with each compensating for the demands made on the other. This means that power delivery is always balanced and free from ground loop modulation distortion.

This, combined with enormous reserves of instantly delivered, precisely controlled power is what makes the SPM 1050 sound so effortless. The power supply rails operate nominally at  $\pm 80$  volts, well above that which most amplifiers can accommodate. This and other advanced techniques enables the ultra high frequency low ESR power supply to store a great deal more energy far more efficiently. Clipping is virtually impossible. Furthermore, compared to other amplifiers of a similar power rating the SPM 1050 weighs in at a mere 15Kg. Another new technique is used to protect the amplifier against overload, internal and external short circuits. The output signal path is totally free of any fuses or sound-degrading resistive components often employed for overload sensing. The SPM 1050 is designed to surpass the highest European safety and electromagnetic interference standards.

The amplifier sections are also highly sophisticated designs that make the most of the best high voltage, lateral structure MOSFETs available, 4 x 300 watt devices per channel. Combining the subtlety and musicality of a good valve design with the punch and accuracy of 'state of the art' solid state products. The result is a 'sliding bias' class A/B design with all drive circuitry operating in class A. At usual listening levels, most of the music will be reproduced in class A. Chord's no-compromise design philosophy means there is no better built amplifier. Individually hand-crafted, it is constructed to aerospace standards from the circuit boards up.

<b>SPECIFICATIONS</b>	<b>SPM 1050 POWER AMPLIFIER</b>
OUTPUT POWER	200W rms per channel @ 0.05% distortion into 8Ω, 300W rms per channel into 4 Ω, 360W rms into 2Ω. Thermal limitation only, 1 channel driven.
DYNAMIC HEADROOM	280W rms per channel into 8Ω, 360W rms per channel into 4Ω. - 1 KHz, 20 cycles on, 480 cycles off. Peak pulses 8 milliseconds burst 75V peak (the equivalent of 800W per channel peak into 4Ω)
FREQUENCY RESPONSE (8 OHMS)	-1dB, 0.2Hz to 46KHz -3dB, 0.1Hz to 77KHz
FREQUENCY RESPONSE (4 OHMS)	-1dB, 0.2Hz to 39KHz -3dB, 0.1Hz to 75KHz
SIGNAL TO NOISE RATIO	Better than -100dB, 'A' weighted two thirds power.
CHANNEL SEPARATION	Better than 95dB.
PRE-AMPLIFIER INPUT CONNECTION	2 x gold-plated, fully balanced XLR sockets. 2 x gold-plated custom phono sockets, unbalanced.
INPUT IMPEDANCE	100kΩ. Unbalanced/Balanced.
INPUT CAPACITANCE	<30pf.
OUTPUT IMPEDANCE	0.04Ω
OUTPUT INDUCTANCE	2.6μH
OUTPUT CONNECTIONS	8 x 4mm rhodium binding posts (2 pairs Black, 2 pairs Red)
SLEW RATE	60V per μS, 1KHz 20V square wave
GAIN	30dB.
STABILITY	Unconditional
DIMENSIONS	420mm (w) x 355mm (d) x 133mm (h)
WEIGHT	15Kg

**Made in England by:**

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