

## USER MANUAL

*GOLDMUND SRM250 Power Amplifier*



Congratulations.

Thank you for purchasing the Goldmund SRM250 Power Amplifier.

You have acquired the best Analog Power Amplifier ever made for professional and domestic uses. Please take some time to read this manual. It may provide you with useful information to make your pleasure of listening to the SRM250 even higher.

## *INTRODUCTION*

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*The GOLDMUND SRM250 Power Amplifier*

Goldmund was founded in 1978 and has ever since been dedicated to the accurate reproduction of sound and image.

At Goldmund, we strive to lead in the creation, development and manufacture of the industry's most advanced technologies, including audio and video systems, home - networking and music distribution.

The guiding principle at Goldmund is to produce a precise sound with the least possible loss of quality through the different stages. Goldmund will never adopt a technology before it is sufficiently developed to satisfy the high quality standards we set. This is why Goldmund has often rejected mainstream technologies and developed its own.

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W A R N I N G



No connection or manipulation must be done before reading these instructions. Damage to the amplifier may result if the following instructions are not consciously understood and applied.

This extremely high quality amplifier possesses new technical features which are a necessity for accurate sound reproduction in the best audio systems.

Only careful installation and use can provide the satisfaction you are expecting.

The installation instructions must be carried out in full and the mentioned precautions taken to get the expected result and to avoid impairing the amplifier's performance.

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# 1

## UNPACKING

You will find in the GOLDMUND SRM250 box:

- The amplifier
- The power cord
- This manual and the warranty card
- Accessories and spare fuses

### **WARNING**

PLEASE KEEP THE PACKAGING IN CASE YOU NEED TO TRANSPORT THE AMPLIFIER AT A LATER DATE OR IF YOU HAVE TO SEND IT FOR MAINTENANCE.

THIS PACKAGING HAS BEEN DESIGNED SPECIFICALLY TO PROTECT THE SRM250 IN TRANSIT. USE OF ALTERNATIVE PACKAGING IS LIKELY TO RESULT IN DAMAGE, INVALIDATING WARRANTY COVER.

# 2

## CHOICE OF AMPLIFIER LOCATION AND COOLING

The Goldmund SRM250 amplifier, as all the high quality amplifiers generates a lot of heat if driven at high power.

To ensure adequate cooling of the heat sink the SRM250 must operate in a well-ventilated location. Avoid putting other equipment on top of the amplifier.

# 3

## LINE VOLTAGE ADJUSTMENT

A voltage selector is provided inside the amplifier.

If your line voltage is not adapted to the voltage indicated on the serial plate of the amplifier, please consult your local GOLDMUND dealer for assistance.

### ATTENTION

At the 220V position, the GOLDMUND SRM250 amplifier will function properly for main line voltages in between 200V and 240V.

At the 110V position, the main line must deliver between 105V and 125V. If your AC line is usually outside of these tolerances, please consult your GOLDMUND dealer.

Please check the value of the main line fuse. This fuse is located in the power cord receptacle.

Use a 5A delayed fuse for 220V and a 8A delayed fuse for 110V.

# 4

## CONNECTIONS

Make sure the volume control is set to zero on the preamplifier.

If used with an analog signal, connect the interconnects between the preamp/processor and each of the power amplifier inputs.

If you are using a Goldmund Universal Preamplifier, connect a lineal digital cable between one of the preamplifier outputs and the amplifier digital input, then change the amplifier switch on the rear panel to digital input.

Connect the speaker cables to the red and black terminals accessible at the back of the amplifier.

You may notice that the ground of the input and the black speaker terminal are of the same polarity. The amplifier is non-inverting in phase.

Then, connect the power cords to the back of the amplifier and plug it in the nearest wall plug. Use a 3 pin grounded plug, for safety reasons. To get the best sound of the amplifier, avoid multiple plugs or extension cords.

# 5

## AMPLIFIER CONTROLS

On the front panel of the GOLDMUND SRM250 amplifier you will find only one switch and two Leds. To start playing the amplifier, turn the power switch ON. The amplifier is operative immediately and the green Led indicates it is operating normally.

It is normal for a slight sound to be heard from the speakers when the amplifier is turned ON or OFF. The SRM250 is self-protected and the sound heard is corresponding to the charging and discharging of the capacitors. The yellow Led indicates that the digital signal is locked on a source when the digital input is in use.

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## SOUND QUALITY OPTIMIZATION

### Warm-up sonic effect

If the power amplifier has been powered OFF for some time, the optimum sound quality may only be reached after 15 minutes. The critical circuits must warm to around +55 degrees C (+131 degrees Fahrenheit) for optimum performance. If in recent use, the optimum temperature may take only 1 or 2 minutes.

### Speaker polarity

Even if you have an absolute phase inverter on your preamplifier (as on the GOLDMUND Mimesis 2 or Mimesis 22M), and you have carefully selected the proper line phase, there is a possibility to further increase the sonic quality of your speakers by reverting the polarity of the speaker cable amp termination. Line phase and speaker polarity interfere to each other however. We therefore recommend careful experimentation with all the combinations in order to arrive at the best one for your installation.

If your preamplifier has an absolute phase inverter, this will interfere too. If it has not, don't forget that the result will depend on the source, as most sources (vinyl CD or DVD) are recorded without care for the absolute phase. Be patient...

### Mains line phase inversion

The sonic quality of your GOLDMUND SRM250 can be greatly improved if the main line is properly connected. Try to invert the mains plugs of both your amplifiers, using special adapters.

We recommend careful experimentation in this area. This should be in combination with the speaker polarity and/or with absolute phase switching tests to be sure of finding the best result for you.

## SAFETY AND PRECAUTIONS

The GOLDMUND SRM250 is an extremely high speed amplifier. Any bad ground connection can generate high frequency oscillation which is dangerous for tweeters.

It is also generally dangerous to run analog input cable and speaker cables in parallel for a long distance. If these cables are not of high quality or badly shielded, an “antenna-effect” can generate dangerous high-frequency oscillations.

### ❑ Protection against DC

The GOLDMUND SRM250 is a DC-coupled amplifier. Without protection and if the associated analog preamplifier is badly designed or defective (often true for tube preamps and some 5 channel processors), the speakers could easily be damaged by amplified DC. The SRM250 protects itself from this danger via a feedback DC control loop that limits DC amplification. This protection circuit is totally transparent and has no sonic effect.

### ❑ Protection against short-circuits

If one output is short-circuited by accident, the amplifier output has self-limiting protection to prevent the current becoming too high. Steps should be taken however, to avoid this happening over protracted periods as excessive heat build-up may still occur over time. In extreme cases, such mishandling could destroy the amplifier, which is not covered by the warranty.

There is no risk in leaving the speaker terminals unconnected when the amps are on.



# 8

## MAINTENANCE

The GOLDMUND SRM250 amplifier usually requires no maintenance.

Always turn the power off before cleaning your amplifier. Use only a clean, soft, damp cloth. Dampen with water or a mild detergent solution. Avoid abrasive or harsh cleansers (eg. products containing sodium carbonate).

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## TECHNICAL DATA

### POWER

- Nominal power before clipping: 200 W RMS (2 - 8 Ohms).  
120 W RMS (1 - 16 Ohms).
- Maximum power: > 400 W RMS (3 Ohms).
- Maximum voltage: 55 V peak. Maximum current : > 15 A peak.
- Maximum current: > 15 A peak.

### FREQUENCY RESPONSE

These figures are valid for the circuit alone, at any level between 0 and nominal power.

- +/- 0.1 dB, 10 Hz - 1 MHz.
- +/- 1 dB, 6 Hz - 1.2 MHz.
- +/- 3 dB, 3 Hz - 1.4 MHz.

### ANALOGUE INPUT SENSITIVITY

- Nominal level: 0.75 V.
- Input impedance: 50 kOhms.

### GROUP DELAY

Propagation delay < 100 ns stable with frequency from DC to 200 kHz.

## TECHNICAL DATA

### DISTORTION

Figures valid for all levels from 0 to 20 V / 8 Ohms.

- Dynamic: TID < 0.01 % (- 80 dB).
- Static: THD < 0.01 % (- 80 dB).

### SPEED

- Slew rate: > 250 V/us
- Rise time: < 250 ns.

### NOISE

- Weighted ASA A: > 100 dB.

### OPERATING TEMPERATURE

- Room temperature: -30 to +40 degrees Celsius ( -22 to +104 degrees Fahrenheit).
- Internal temperature: +45 to +65 degrees Celsius ( +113 to +149 degrees Fahrenheit).

### POWER SUPPLY

- Nominal line voltage: 117 or 234 V.
- Input voltage range: +/- 15 %.
- Maximum power consumption: 300 W.

### SIZE AND WEIGHT

- 22 cm W x 38 cm D x 8 cm H. Weight : 13 kg net.
- Weight: 10 kg net.

### WARRANTY

- 3 years parts and labor.