

**GOLDMUND MIMESIS 18.4  
POWER AMPLIFIER**

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## **USER MANUAL**

### **CONGRATULATIONS**

Thank you for purchasing the Goldmund Mimesis 18.4.  
You have acquired the best Analogue 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 Mimesis 18.4 even higher.

### **ATTENTION :**

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

## **1 - UNPACKING**

You will find in the GOLDMUND MIMESIS 18.4 box :

- The amplifier
- The power cord
- This manual
- Spare fuses.

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.

## **2 – CHOICE OF AMPLIFIER LOCATION AND COOLING**

The GOLDMUND MIMESIS 18.4 amplifier, as all high quality amplifiers generates a quite large amount of heat.

It is mandatory to allow a proper cooling of the heat sinks. Avoid any location which is not properly vented and avoid to put on top of it equipment sensitive to temperature.

Due to its weight, and to maximize the effect of the built-in "Mechanical Grounding" construction, the MIMESIS 18.4 is better located on the floor. But other very strong supports can also be used, if they offer a very rigid transmission with the floor.

## **3 – LINE VOLTAGE ADJUSTMENT**

A voltage selection is provided inside the amplifier, accessible by an opening plate in the bottom of 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 internal adjustment.

**ATTENTION :** On the 220V position, the GOLDMUND MIMESIS 18.4 amplifier will function properly for main line voltage in between 200V and 240V. On the 110V position, the main line must deliver between 105 and 125V. If your main line is usually out of these tolerances, please consult your GOLDMUND dealer.

Please check the value of the main line fuse. This fuse is located on the back panel of the amplifier, above the two power cord receptacles.

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

## **4 - CONNECTIONS**

If used with an analogue signal, connect the interconnect between the preamp and each power amp. Check the input switch is in the analogue position. You may either use the analogue input RCA female socket or the XLR. The XLR socket, especially useful in professional installations, is wired as follows :

- 1 - Grounding, Shielding.
- 2 - Hot.
- 3 - Cold.

**Attention : if you want to use a symmetrical 4 wire cable, always maintain the ground/earth switch to "Link" or you may destroy your amplifier.**

When used with a digital input signal, connect the digital input cable to the digital input and switch the input switch to digital. Since a digital Spdif cable carries 2 channels you may link the digital output to the next amplifier to transfer the second channel.

Connect the speaker cable to one of the red and black terminals in the back of the amplifier or, if you use a Goldmund High Definition Speaker Cable, to the coaxial connector.

The 2 separate outputs are connected internally in parallel.

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

## **5 – AMPLIFIER CONTROLS**

On the front panel of the GOLDMUND MIMESIS 18.4 amplifier you will find only the power key and 3 Led.

To start playing the amplifier, switch the key to ON. The amplifier is immediately operative, without delay and the central green Led indicates it is operating normally. The Mimesis 18.4 is using a signal-sensing auto-start circuit. If no modulation is received by the power amp for approximately 20 minutes, the power amp will go off and the green central Led will only flash regularly to indicate that the amp is ON and ready to restart.

If a signal is applied to the input (analogue or digital), the amp will start working again and the green Led will stay on.

In large system with several amplifiers connected, you may have problem when applying a signal if all power amps start simultaneously, triggering the house breaker. To avoid it, each amp may have a small different delay adjusted to make them start in sequence and avoid the problem. To adjust each amp differently, disconnect the amplifier from AC, open the bottom removable plate, and using a small screwdriver, turn the small rotary switch accessible on the visible printed circuit. Just set each amp to a different position of the switch.

The left red Led will only glow if the amplifier has switched to a protection mode after detecting HF or DC perturbation. You will have to turn OFF the amp and turn ON again after suppressing the perturbation.

The yellow right Led shows the lock of the digital signal on a source when the digital input is used.

## **6 – SOUND QUALITY OPTIMIZATION**

### - Warm-up sonic effect.

If the power amplifier has been powered off for some time, the optimum sound quality is only reached after a few minutes. The critical circuits have to warm up to around +55 degrees Celsius (+131 degrees Fahrenheit). When the amplifier has been used recently, the optimum is reached after only 1 or 2 minutes.

### - Speaker polarity.

Even if you have a phase inverter on your preamplifier (as on the GOLDMUND MIMESIS 2 or MIMESIS 22), and even if you have carefully selected the proper line phase (see in next paragraph), there is a possibility to again increase the sonic quality of your speakers by reverting the polarity of the speaker cable amp termination. But since the line phase and the speaker polarity interfere to each other, you have to experiment carefully all the combinations before picking the right one. If your preamp has an absolute phase inverter, this will interfere too. If it has not, don't forget the result will depend of the source, most of the record and CD being recorded without care for the absolute phase. Be patient...

### - Main line phase inversion.

To select the proper phase, you have to select, by trying, one of the two power cord position, using a plug adapter.

We recommend that you proceed carefully to try this. You must do it in combination with the speaker polarity and/or with absolute phase switching to be sure of the result.

## **7 – SAFETY FEATURES**

The GOLDMUND MIMESIS 18.4 amplifier provides sophisticated features to protect the amplifier and the speakers against a mishandling or component failure. However precautions must be taken to avoid problems with a very high power amplifier.

### - Protection against DC.

The Mimesis 18.4 is a DC-coupled amplifier. If the associated preamplifier is badly designed or defective (often true for tube preamps), the speakers could be damaged.

In such a case, the DC protection circuit of the Mimesis 18.4 will automatically turn off the amplifier. This detection circuit is totally immune to any sonic effect.

To indicate that the amplifier has been turned off by the protection circuit, the red Led will be displayed on the front panel.

Turn OFF the amplifier immediately.

When the source of DC offset is suppressed, turn ON the amplifier again.

#### - Protection against HF oscillations.

In the same way, the speaker must be protected against a large amount of high frequency oscillation if present to avoid any danger for the tweeters, even if these frequencies remain unnoticed.

The amplifier is by itself extremely stable. However some mishandling must be avoided in order to avoid any oscillation :

- Never plug an input cable on a power amp when it is turned on.
- Be careful to use only very high quality interconnects. If the ground connection becomes loose, there is a big danger of oscillation. Warranty is voided if this occurs.
- Never run the input and output (speaker) cables parallel.

If an oscillation of too high level is detected, the amplifier will be turned off automatically. You will have to turn off the amplifier by the front switch, suppress the source of oscillation and turn it ON again.

#### - Protection against short-circuits.

If one output is short-circuited by accident and the current becomes too high, the AC fuse may blow.

To replace the defective fuse, switch the amplifier off first. Then open the small drawer located on the AC cord receptacle. The fuses are located inside. Change the defective fuse.

Then switch the power on if the short-circuit has been detected and removed.

To avoid the fuses to blow, avoid to short-circuit the output terminals accidentally.

Always switch OFF the amp before trying any manipulation of the speaker cables.

There is no risk to leave the speaker terminals unconnected when the amp is on.

## **8 - MAINTENANCE**

The GOLDMUND MIMESIS 18.4 amplifier usually requires no maintenance.

To clean your MIMESIS use only a soft cloth slightly wet. Always turn the power off before cleaning your amplifier.

## TECHNICAL DATA :

### POWER

- Nominal power : 200 W RMS (2 - 8 Ohms).  
120 W RMS (1 - 16 Ohms).
- Maximum instantaneous power : 400 W RMS (8 Ohms).
- Maximum voltage swing : 62 V peak.
- Maximum current swing : 20 A peak.

### FREQUENCY RESPONSE

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

- +/- 0.1 dB, 0 - 300 kHz, +/- 1 dB, 0 - 800 kHz.
- +/- 3 dB, 0 - 2 MHz.

### INPUT SENSITIVITY

- Nominal level : 1.45 V RMS.
- Voltage Gain : 29
- Input impedance : 52 kOhms.

### GROUP DELAY

- Propagation delay < 140 ns stable with frequency from DC to 200 kHz.

### DISTORTION

Figures valid for all levels from 0 to 26 V / 8 Ohms :

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

### SPEED

- Slew rate : > 200 V/us
- Rise time : < 300 ns.

### NOISE

- Signal-to noise ratio : > 115 dB.
- Weighted ASA A : > 130 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, 234 V (internally switchable).
- Input voltage range : +/- 10 %.
- Maximum power consumption : 700 W.
- Power used in standby : 70 W.
- 4 toroidal transformers, 3 separated power supply.

#### GROUNDING

- Chassis connected to mains earth.

#### SAFETY FEATURES

- AC voltage fuse : min 5 A slow-blow for 220 V / 8 A slow-blow for 110 V.
- Built-in detection for HF and DC with speaker disconnection.

#### FRONT PANEL CONTROLS

- Power key.
- 3 control Leds (Safety, Power, and Digital Lock)

#### REAR PANEL CONNECTORS AND CONTROLS

- Power cord: universal socket 3 lugs.
- Main fuse (8 A slow-blow 110V / 5 A slow-blow 220 V).
- Green-yellow AC earth binding post.
- Earth connection switch to connect earth and signal ground (link-float).
- Output speaker 2 X 5 ways post.
- Output speaker Coaxial for Goldmund Speaker cable.
- Analogue Input connectors : RCA and XLR for balanced input.
- Digital Input connector RCA for input and output.
- Digital input channel selection switch.
- Input attenuator : -9, -6, -3, 0, +3, +6, +9dB

#### SIZE AND WEIGHT

- 22 cm (17") W x 44 cm (17") D x 17 cm (7") H.
- Weight : 25 kg net.

#### WARRANTY

- 3 years parts and labor.