USER MANUAL

GOLDMUND MIMESIS 29M

Millennium Edition

Power Amplifier

CONGRATULATIONS

Thank you for purchasing the Goldmund Mimesis 29M Millennium Edition.
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 29M 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 29M 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

The GOLDMUND MIMESIS 29M amplifier, as all high quality amplifiers may generate a large amount of heat if driven at high power.
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 29M 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.

The MIMESIS 29M is built on four very hard conical feet to insure proper vibration transmission to the amplifier support in order to evacuate all detrimental vibrations inside the amplifier, following the famous GOLDMUND "Mechanical Grounding" principle.
Depending on the flatness of the surface where the amplifier will be located, you will choose to screw in the four round flat feet of the amplifier to allow full contact of the points with the support.

3 LINE VOLTAGE ADJUSTMENT

A voltage selection 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 internal adjustment.

ATTENTION: On the 220V position, the GOLDMUND MIMESIS 29M amplifier will function properly for main line voltage in between 190V and 250V. On the 110V position, the main line must deliver between 95 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.

4 CONNECTIONS

Connect the power cord to the back of the amplifier and plug it in the nearest wall plug. Use only a 3 lugs grounded plug, for safety reasons. To get the best sound of the amplifier, avoid any multiple plug or extension cord.

NOTE: See below for the proper selection of the power cord receptacle, depending of the line phase.

Connect the interconnects between the preamp and the power amp. You may either use the RCA female sockets, which are the highest quality WBT sockets (ground connects first and the plug may be locked if you use the GOLDMUND-MIT interconnects), or the XLR. The XLR sockets, especially useful in professional installations, are 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.

Connect the speaker cables to the red and black terminals accessible in the back of the amplifier, or, if you use a Goldmund High Definition speaker cable, you can connect directly the speaker cables to the coaxial plugs on the back panel of the amplifier, bypassing the amplifier adapter module of the speaker cable.
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

Normal Operation

On the front plate of the GOLDMUND MIMESIS 29M amplifier you will find only two POWER keys.
In the Standard Mode, the two POWER keys have to be activated simultaneously to power the amp on.
This security feature is provided to avoid any fortuitous power on or power off.

When the two keys are pressed simultaneously, the amp switches on in "Muted" mode and the center yellow led lights on showing the amp is powered on, but input is muted.

By pressing once the right key, the amplifier becomes immediately operative, and the green led shows it is.
By pressing once the right key again, the amplifier returns to "Muted" state.

The amp may be powered off by pressing simultaneously the two POWER keys at any time.

Auto-Power Operation

When the power amp is powered off, pressing the right key provide additional mode adjustments.

By pressing it twice, you reach the Auto-Power Mode adjustment. You may now activate the Auto-Power Mode On or Off by pressing the left key.

In Auto-Power mode, the amp is turned on automatically when receiving an audio signal. It also turns off automatically after few minutes if no signal is received during this period. In this mode, the amp turns on automatically to ready, without going in Muted first.

This mode is useful when several amplifiers are used together in a multi-amp system or when the power amplifiers are not easily accessible.

5 AMPLIFIER CONTROLS Ctd

When the amp is in Auto-Power mode and is operative, it may be muted by pressing the right key, as in the normal mode.

Auto-Ranking Mode

When several amplifiers are used in a system and they are used in Auto-Power mode, they risk to all start together when a signal appears, creating a large current surge that may be dangerous for the Home breakers.

To avoid this big surge, the Goldmund amplifier provides a "ranking" adjustment which gives each amp of the system a "rank" in the Auto-Power ON mode.
The rank is adjustable from 1 to 8.
When only one amp is used, leave the ranking to 1.
If you use several amplifiers, rank them from 1 to their number.
When they will be powered ON in Auto-Power mode by receiving a signal, they will start in the order of the rank they have, each after the previous one (few 100 millisec later), avoiding the power surges to add-up at the breaker level.

To adjust the rank of each amp, when it is powered off, press the right key until the ONRank adjustment is displayed. Change the rank by pressing the left key.

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 several 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 10 to 15 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 positions, 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.

- The GOLDMUND exclusive "Mechanical grounding".

In the GOLDMUND MIMESIS 29M amplifier, GOLDMUND has, more than in any other of its components, fully implemented an optimized vibration evacuation path. This is called by GOLDMUND: "Mechanical Grounding".

6 SOUND QUALITY OPTIMIZATION Ctd

The perfect adjustment of this evacuation provides the MIMESIS 29 with an extraordinary dynamic capability and transparency, especially on low efficiency speakers.
To get all the benefits of this design, the MIMESIS 29M must be located on a very rigid support, or better directly on the floor, to be directly coupled with the building rigid construction. Try various locations until you find the most rigid one. Avoid any decoupling material, carpet especially, even between the furniture and the floor. Use the four pin-point feet to couple the amplifier to the supporting furniture or to the floor. With a very top system, the sonic improvement when the proper grounding is found is obvious and worth the try.

7 SAFETY FEATURES

The GOLDMUND MIMESIS 29M amplifier provides sophisticated features to protect the amplifier and the speakers against all mishandle or component failure. However precautions must be taken to avoid problems with a very high power amplifier.

- Protection against DC.

The MIMESIS 29M is a DC-coupled amplifier. If the associated preamplifier is badly designed or defective (often true for the tube preamps), the speakers could be damaged. The DC protection circuit of the MIMESIS 29M is totally immune to any sonic effect but will protect the speakers if such a malfunction occurs.

- 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.

- Overheating protection.

If for any reason (malfunction, too high level, too low load impedance) the temperature of one channel reaches a dangerous level, the MIMESIS 29M may be damaged.

7 SAFETY FEATURES Ctd

If the temperature rises too high, switch the amp off for quite some time. It is strongly recommended to try to detect why the temperature has reached such a level before operating the amp 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 TECHNICAL DATA

POWER
- Nominal power : 2 x 250 W RMS (2 - 8 Ohms).
  2 x 150 W RMS (1 - 16 Ohms).
- Maximum instantaneous power : 2 x 500 W RMS (8 Ohms).
- Maximum voltage swing : 80 V peak.
- Maximum current swing : 28 A peak.

These figures for both channels driven.

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 - 2.5 MHz.

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

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

DISTORTION

Figures valid for all levels from 0 to 40 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.

CROSSTALK
- Separation : > 100 dB between channels. Isolated ground.

NOISE
- Signal-to noise ratio : > 115 dB (0.01 Hz - 1 Mhz).
- 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 (switchable).
- Input voltage range : +/- 10 %.
- Maximum power consumption : 2000 W.
- Power used in standby : 120 W.
- 8 toroidal transformers, 8 separated power supply.

GROUNDING
- Separated ground for each channel.
- Floating chassis connected to mains earth.
- Switch for optionally connecting both.

SAFETY FEATURES
- AC voltage fuse : min 10 A slow-blow for 220 V / 16 A slow-blow for 110 V.

FRONT PANEL CONTROLS
- 2 POWER keys.
- Protection against accidental power off.

REAR PANEL CONNECTORS AND CONTROLS
- Power cord: universal socket 3 lugs.
- Main fuse (16A slow-blow 110V / 10 A slow-blow 220 V).
- Green-yellow AC earth binding post.
- Black signal ground binding post.
- Output speaker 4 X 5 ways post.
- Output speaker Coaxial connectors.
- Input connector RCA (right and left).
- Input connector XLR for balanced input (right and left).

SIZE AND WEIGHT
- 44 cm (17") W x 44 cm (17") D x 23.5 cm (9.25") H.
- Weight : 65 kg net.

WARRANTY
- 3 years parts and labor.