

USER MANUAL

Goldmund MIMESIS 20M D/A CONVERTER



Thank you for purchasing the Goldmund MIMESIS 20M D/A CONVERTER.

Please take some time to read this manual. It may provide you with useful information to make your pleasure of listening to the MIMESIS 20M even higher.

INTRODUCTION

Goldmund MIMESIS 20M D/A CONVERTER

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 latest 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.

W A R N I N G

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

This high quality converter possesses new technical features like high bandwidth and ultra-high bits capability which are or will become necessary for an accurate conversion of the today's best digital messages as well as tomorrow's new formats.

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 performance.

1 SETTING UP THE MIMESIS 20M

1.1 UNPACKING

You will find in the GOLDMUND MIMESIS 20M box:

- The D/A Converter.
- The power cord.
- The remote control.
- This manual.

ATTENTION

Please keep the packaging in case you need to transport the MIMESIS 20M at a later date or if you have to send it for maintenance.

This packaging has been designed specifically to protect the MIMESIS 20M in transit. Use of alternative packaging is likely to result in damage, invalidating warranty cover.

For exacting technicians, musicians, and all amateurs who demand the very best in recording transcription, we strongly recommend the use of a top quality CD transport unit, DVD transport or DAT machine, since most of the digital signal integrity can be destroyed before the converter unit.

For a perfect CD/DVD transport, Goldmund recommends the Goldmund Eidos 38 or Eidos Reference.

The connection between the digital sources and D/A converter is also critical. Ultra low reflection cables for SPDIF connections, special glass fibers for the optical ones are absolutely mandatory. In all typical cases Goldmund recommends using the SPDIF connection with its special Goldmund Lineal cable.

1 SETTING UP THE MIMESIS 20M

1.2 CHOICE OF D/A CONVERTER LOCATION AND COOLING

Select a very rigid support for your CD/DVD player. Goldmund produces an especially designed table for the DVD Eidos Reference and space can be managed in the same structure to place the Mimesis 20M, with perfect “Mechanical Grounding” vibration evacuation.

Position the player as far away as possible from the speakers if you want to totally avoid the air coupling between the speakers and the CD/DVD player.

The distance between the CD/DVD transport and the Mimesis 20M is usually not critical. However, if you use a coaxial cable link, and the CD/DVD transport is not perfectly matched to the SPDIF interface specifications, a short distance is mandatory.

If you want to achieve the best possible sonic result, select a position on a shelf or on a piece of furniture where the converter is isolated from vibrations of mechanical components, like the CD/DVD transport itself.

You must also be careful to locate your Mimesis 20M in a very well ventilated location. When powered on, the Mimesis 20M, as all high quality electronic equipment, generates a significant amount of heat which has to be evacuated by natural ventilation.

For the same reason, it is perfectly normal that, after few hours of operation, your Mimesis 20M gets quite hot.

1.3. POWER SUPPLY

The Goldmund Mimesis 20M D/A converter uses a power supply developed by Goldmund to provide totally separate voltage to each part of the digital and analog circuitry.

Your power supply unit has been set to operate with the mains voltage of your area. Check on the power supply voltage switch if there is any doubt. If you move after purchasing the D/A converter to an area using a different AC mains voltage, you can change the voltage by yourself or consult your local Goldmund dealer for assistance.

The power supply unit can operate indifferently with both 50 and 60 Hz AC line.

1.4. FIRST INSTALLATION AND CONNECTIONS

Power Connection

Plug the AC power cord to the power supply and in a wall socket.

The converter is and remains on power as soon as the power switch located on the back panel is turned on. For best sonic results, Goldmund recommends to leave the converter powered on permanently.

The unit has a standby position that can be activated by pressing the 2 front panel keys marked "SET/PWR" first, then without releasing it, the "DOWN/PWR" key. A repetition of the same operation brings back the unit to normal functioning.

When the machine is in standby the front panel Led controls are off except the red SBY led, but the circuitry remains connected as long as the power supply switch is not turned off.

When turned ON by the back panel power switch, the unit accomplishes a self test run by its internal software, then a software routine successively test the modules inside the machine. If any abnormal functioning is detected, it is displayed on the front panel.

Sources Connection

Connect the CD/DVD transport and other digital sources or tape machines to the back panel inputs and outputs of the Goldmund Mimesis 20M, using either a coaxial link and the RCA or the AES/EBU XLR connectors.

The inputs are numbered from left to right when looking at the back panel. The first 3 inputs are named "IN1", "IN2" and "IN3". The following inputs are not numbered since they are optional and can be exchanged for different types. On the standard unit they are all identical. Start connecting your favorite sources from IN1 up.

If you use digital tape machines, their digital output can be connected to any of the available inputs. The Menu Functions of the Mimesis 20 will allow you to dedicate any input to a tape machine and automatically avoid the input-output loop accordingly.

The digital outputs of the Mimesis 20M can be used to record on a digital tape machine. They are connected in parallel, except when the connected tape machine is monitoring.

You can use a maximum of 2 digital tape machines with all possible copy functions. You can connect more units for listening purpose but they won't be able to record simultaneously.

When all input sources and tape machines are connected, connect one pair of analogue output RCA jacks to the analogue preamplifier line level input, using a high quality analogue interconnect like the Goldmund Lineal Interconnect. 3 pairs of analogue outputs in parallel are provided for Multi-amping systems.

With the Mimesis 20 Balanced analogue built-in circuitry, you may also use the XLR balanced analogue outputs to connect to a balanced input source. However, the sound quality will not be as high as in the unbalanced mode.

The RS 232 Db9 connector available on the power supply module on the back panel of the Mimesis 20M is used to link the Mimesis 20M to external units in order to control their function in remote or modify the built-in software. It may be used to control the Mimesis 20M with remote systems like Phast or Crestron.

1.5. FRONT PANEL KEYBOARD FUNCTIONS

- Standby function :

The Standby position can be activated by pressing the front panel key marked “SET/PWR” first, then without releasing it, the “DOWN/PWR” key. A repetition of the same operation brings back the unit to normal functioning. When the machine is in standby the front panel Led controls are off except the red “SBY” Led, but the circuitry remains connected as long as the power supply switch is not turned off.

- Input Source Selection :

The back panel inputs are selected by pressing the front panel keys marked from “CH1” to “CH7”.

When only one of these keys is pressed, the corresponding source is selected and transmitted to the converter circuitry. The corresponding green Led indicates this selection.

If a source is connected, the unit will first analyze the signal and finally turn the unit on to listen to that source.

The delay before connecting the output is needed to perfectly stabilize the circuits if the source selected has a different clock frequency than the previous selected one and avoid any annoying noise.

- Recording Source Selection :

Any source can be selected to be recorded independently from the source that is played (it can be the same or a different one).

To select the source that will be recorded, first press once the “REC/MENU” key, then press the channel key you want to select. If no source is selected, the unit returns to normal function after 4 to 5 seconds.

The corresponding red light will glow, showing which channel is selected.

The selected source will be sent to both digital outputs of the machine.

However, if the corresponding source has been chosen in the Menu as a tape machine, this machine output will not be connected to avoid noise loop.

- Output Volume and Balance Adjustment :

A digital domain level control is provided, allowing remote-control attenuation of the signal, for each channel.

The level adjustment and the balance may be activated by the remote control of the Mimesis 20M.

The volume control may also be activated on the front panel by pressing and maintaining the "SET" key pressed and pressing the "Channel 6" key for down and "Channel 7" key for up level. Continuous pressing provides a progressive increase of the adjustment speed.

The level appears on front panel when the "SET" key is pressed.

The balance control may also be activated on the front panel by pressing and maintaining the "SET" key pressed and pressing the "Channel 4" key for left and "Channel 5" key for right. Continuous pressing provides a progressive increase of the adjustment speed.

Attention : In order to avoid any definition loss, the maximum listening level must absolutely be set by the power amplifier level adjustment when the level is at maximum on the Mimesis 20M. The attenuation circuits of the Mimesis 20M are then used as only an attenuator.

For the comfort of use, the level to which the machine returns when powered on is set in the setup menu.

- Muting :

To mute the preamplifier output, press the "DOWN/PWR" key. The same operation repeated brings back the converter to normal operation.

- Absolute phase :

To switch the output absolute polarity, press the "UP" key once. The "180" led shows the polarity is inverted. Repeat the same operation to return to a non-inverted absolute phase.

- Info :

A set of information including the input selected, the selected gain for this input and the signal frequency for a digital are available on request. To display it, keep pressing the "SET/PWR" key and press the "CH2" key. The information concerning the currently selected channel is displayed.

- The Menu Functions :

Your Mimesis 20M may be totally personalized thanks to the Menu Functions. Your personal choice for each Menu Function is kept in machine memory even if the machine is disconnected from power.

The existing Menu Functions (in the software release 1) are the following :

1st Menu Level

- **Display Brightness** : to adjust the display brightness (100%, 80%, 53%, 40%, 27%, 20%, 13%)
- **Display Time** : To select the display as permanent or only temporary with the temporary time adjustable (5s, 10s, 15s, 20s, 25s, 30s)
- **Gain (only present if the Mimesis 20M is in mode converter, see level 3 below)** : to separately adjust the attenuation of the output for each input channel. Adjustable for 0 (standard position), -3dB, -6dB, -9dB, -12dB.
- **Input selection** : selects either the SPDIF (default or the XLR AES/EBU input for each input. If an optional optical input module is present, selects (automatically displayed) Toslink or ATT.
- **Tape In 1** : selects which input channel sources are tape machines. The Channel keys ("CH1" to "CH7") selects which input is corresponding the Tape In 1. The "UP" key switches between the analogue or digital inputs group (only if the Digital Input Optional Module is installed). The "DOWN/PWR" key cancels the channel choice to Tape in 1
- **Tape In 2:** Idem for a second tape machine.

2nd Menu Level

To enter the second level of the menu from the 1st Menu level (only valid if no function of the 1st menu has been selected yet), keep the "SET/PWR" key pressed and press the "REC/MENU" key.

- **Channel Name Entry** : Each input may be named in clear to ease the use of the preamplifier. The name applies to the selected input. To enter a name, here is a memo of the keys functions :

- "CH1" moves the cursor to the left.
- "CH2" moves the cursor to the right.
- "CH4" switches to Uppercase.
- "CH5" switches to Lowercase.
- "CH6" provides numbers and special characters.
- "CH7" enters a space.
- "UP" and "DOWN/PWR" give access to all available digits.

3rd Menu Level

To enter the third level of the menu from the 2nd Menu level (only valid if no function of the 1st and 2nd menu has been selected yet), keep the "SET/PWR" key pressed and press the "REC/MENU" key once again.

- The Mimesis 20M may be set as a D/A converter (maximum level with an adjustable attenuation per input) or a digital preamplifier (with gain and balance adjustment). Choose on the up/down key
- The input 4 to 7 may be receiving an optional optical input module with Toslink or ATT. To indicate this option is present select the input number and choose optical.

Note :

During the time you adjust the Menu Functions to your specific needs, we recommend you turn the volume of your preamplifier down, to avoid any unpleasant noises if you make a mistake during the process.

To enter the Menu Function selection,

Press "SET/PWR" and, without releasing it, press the "REC/MENU" key. You are entering the Menu mode.

Then press the "REC/MENU" key until you reach the Menu Function you want to modify.

Note :

If you press again the "SET/PWR" key and the "REC/MENU" key, you will immediately quit the Menu Functions.

To Make a choice or Modify one,

Depending on the function you are in, the choice or the content can be modified using the following keys :

- The channel selection keys are moving the cursor horizontally (CH1 to the left)
- The “UP” and “DOWN/PWR” keys change the values at cursor position.

The new choice is immediately registered.

Note :

The input Channel you last modified is the one the unit will turn on to the next time it is powered up.

1.6. REMOTE-CONTROL

Your Mimesis 20M has built-in remote-control for volume and input selection. The absolute phase can also be controlled by remote.

The power key of the remote actually activates the Standby Function. The Mute circuit can also be activated by the remote.

The Mimesis 20M can be controlled by any RC5 coded remote-control emitter.

Most of the programmable transmitter units available have the capabilities to drive the Mimesis 20M as a standard digital preamplifier, for all the specified functions.

In addition the Mimesis 20M may be remote-controlled through its RS 232 connection, using a software command set available in the Goldmund Web Site.

1.7. CLEANING

Always disconnect the power cord from the wall socket before cleaning your converter.

To clean the metal of the converter, always use a very soft cloth to avoid scratching the surface. Use a soft cloth slightly wet for usual maintenance.

TECHNICAL DATA :

DIGITAL INPUTS/OUTPUTS CONFIGURATION :

- 7 Digital Inputs, all S/PDIF coaxial (RCA 75 Ohms) and AES/EBU XLR balanced, with fully separate driving circuits.
- Options available to replace up to 5 of the input modules by a special one providing different standard like ATT Optical, Toslink Optical, etc...)
- 2 Digital Outputs for tape loops with full monitoring capability, both in digital and analog, providing S/PDIF RCA coaxial and AES/EBU XLR balanced, with separate driving circuits.
- Remote-controlled Full Matrix control capability for digital inputs and outputs.

ANALOG OUTPUTS :

- 3 x 2 Analog RCA outputs (Right & Left). 2 x XLR balanced analog outputs.
- Front panel and remote-control adjustable attenuator with more than 100 dB range.
- Output impedance : 50 Ohms.

D/A CONVERTER CIRCUIT :

- Goldmund ultra-linear phase proprietary circuitry enhanced from the Alize 4 technology.
- Using Goldmund modules type DA 20M and AF20M.
- Bandwidth : 20Hz-20kHz ± 0.1 dB typical.
- Typical non-linearity : below 1dB at -100dB.
- Noise rejection > 104dB. Typical >105dB.
- Total perturbation (noise+distortion+non-linearity) guaranteed below 100 dB at -100 dB.
- Typical phase error between channels : < 1degrees.
- Other Technical data : Not published.

REMOTE CONTROL :

- RC5 Standard remote system compatible with standard programmable remote control transmitter.
- Selection of the source and the recorded source.
- Output level and balance control
- Absolute phase reversal.
- Remote Muting.

FRONT PANEL CONTROLS :

- 11 keys for all machine functions including the menu controls.
- Individual control by Leds of the source selected for listening (green) and for recording (red).
- 16 characters alphanumeric display with adjustable brightness and disable - function to display the status of the machine.
- Separate Led display of inverted 180 phase (green) and Standby (red).

REAR PANEL CONNECTORS AND CONTROLS :

- D-Sub 9 pin socket for RS232 serial link.
- Signal grounding post (black) and earth post (yellow/green) linkable by switch.
- 3 pairs of analogue RCA output connectors (right and left).
- 7 sets of digital input (1 x RCA SPDIF and 1 x XLR AES/EBU) and 2 outputs for digital tape loops.

POWER SUPPLY :

- Power transformers molded in a decoupled mechanical block with separate Mechanical Grounding transmission through the 2 left feet.
- 4 separate transformers.
- 8 separately regulated power supplies.
- Nominal AC line voltage : 117 V or 234 V.
- Input voltage range : +/- 15%.
- Maximum power consumption : 55 W.

GROUNDING :

- Separated ground and earth connections to control ground loops.

SIZE AND WEIGHT :

- 44 cm W x 43 cm D x 10.7 cm H.
- 20 kg.

WARRANTY :

- 3 years parts and labor.