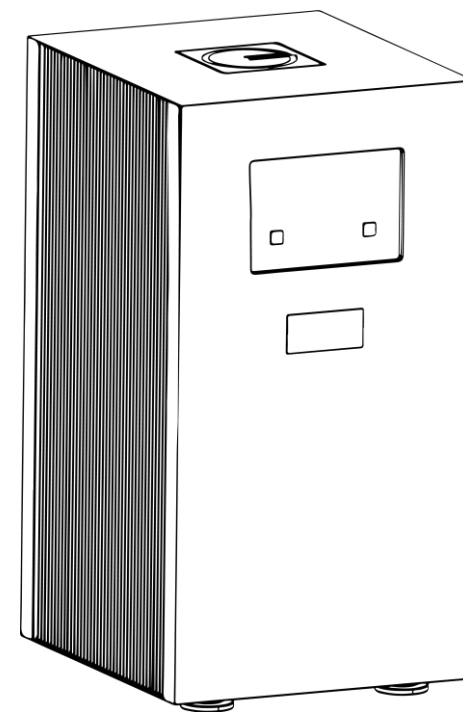


# USER MANUAL

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GOLDMUND TELOS 4800

Mono Power Amplifier



Thank you for purchasing the GOLDMUND TELOS 4800.

Please take some time to read this manual. It will provide you with useful information to make your pleasure of listening to the TELOS 4800 even higher.

## INTRODUCTION

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### GOLDMUND TELOS 4800 POWER AMPLIFIER

Goldmund 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. Therefore, Goldmund has often rejected mainstream technologies and developed its own.

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## ! W A R N I N G !

Absolutely no connections or manipulations should be attempted prior to thoroughly reviewing these instructions. Failure to adhere to the subsequent instructions may lead to damage to the amplifier.

These exceptionally high-quality amplifiers incorporate novel technical advancements that are imperative for achieving precise sound reproduction within top-tier audio systems.

**Only careful installation and use can provide the satisfaction you are expecting from this product.**

All handling must be performed according to the following instructions to avoid impairing the amplifier's performance.

### **IMPORTANT**

PLEASE DO NOT CONNECT ANY CABLES OR MOVE ANY PARTS BEFORE READING THE FOLLOWING INSTRUCTIONS

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# TABLE OF CONTENTS

1	PRELIMINARIES	5
2	UNPACKING	5
3	CHOICE OF LOCATION & COOLING	6
4	LINE VOLTAGE ADJUSTMENTS	6
5	CONNECTIONS	7
6	CONTROLS & USE	8
7	SOUND QUALITY OPTIMIZATION	12
8	MAINTENANCE	13
9	TECHNICAL SPECIFICATIONS	14

# 1

## PRELIMINARIES

Please read the following instructions very carefully. This high-precision unit will provide the best signal possible to your speaker thanks to its unique technology.

For exacting technicians, musicians, and all high-fidelity music purists who demand the very best in musical reproduction, we strongly recommend the use of top-quality analog pre-amplifier or acoustic processor with analog or digital input.

The connection between the analog and digital sources and the acoustic processor as well as between the pre-amplifier and the power amplifiers are critical. Ultra low reflection interconnect cables are mandatory in analog and precise impedance S/PDIF cables in digital to keep the time integrity that the acoustic processor is designed to provide. In all typical cases Goldmund recommends using the special Goldmund Lineal interconnect and digital cables.

# 2

## UNPACKING

You will find in the GOLDMUND TELOS 4800 box:

- The amplifier
- The power cord
- This manual

Unpack the above-mentioned parts carefully and keep all packaging for future use.

### WARNING

If you need to return the TELOS 4800 to the factory or to your local representative for a warranty repair; please note that it must be repacked in the original packaging.

This packaging has been specifically designed to protect your TELOS 4800 in transit. Use of alternative packaging is likely to result in damage, invalidating warranty coverage.

### 3

## CHOICE OF LOCATION & COOLING

The GOLDMUND TELOS 4800 amplifier, as all high-quality amplifiers can generate a significant amount of heat when driven at high levels and must be vented properly. It is mandatory to allow a proper cooling of the heat sinks. Do not put temperature sensitive equipment on top of the amplifier.

Due to its weight, and to maximize the effect of the built-in "Mechanical Grounding" construction, the TELOS 4800 is better located on the floor. Other very strong supports can be used if they offer rigid transmission to the floor.

The TELOS 4800 is built on four very hard conical feet to ensure proper vibration transmission to the amplifier support. This evacuates 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 adjust the four round flat feet of the amplifier to allow full contact of the points with the support.

### 4

## LINE VOLTAGE ADJUSTMENTS

The internal voltage configuration is set at the factory. If your line voltage is not adapted to the voltage indicated on the serial special label of the amplifier, please consult your local GOLDMUND dealer for internal modification.

### ATTENTION

On the 230V version, the GOLDMUND TELOS 4800 amplifier will function properly for main line voltage at 230V  $\pm 10\%$ . On the 115V version, the main line must be 115V  $\pm 10\%$ . If your main line is usually out of these tolerances, please consult your GOLDMUND dealer.

**4****LINE VOLTAGE ADJUSTMENTS (Ctd.)**

Please check the value of the main line fuses at the end of this manual. These fuses are located on the back panel of the amplifier.

**5****CONNECTIONS**

Connect the power cord to the back of the amplifier and plug it into the nearest wall plug.

Use only a 3 lugs grounded plug, for safety reasons. To get the best sound from the amplifier, avoid any multiple plug or extension cord.

If used with an analog signal, connect the interconnect between the preamp and each power amp and set the TELOS 4800 in analog mode. You may either use the 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

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

Connect the speaker cable to the red and black terminals in the back of the amplifier or use the pair of speaker block adapter along with the Goldmund high-definition speaker cables to your speaker.

The 2 separate binding post 5-way output and Goldmund 4B type output connectors are connected internally in parallel. They are provided to facilitate the connection in bi-amping systems.

## 5

## CONNECTIONS (Ctd.)

### IMPORTANT NOTE

- To avoid any significant damage the TELOS 4800 amplifier cannot be bridged.
- Although the amplifier is equipped with a short-circuit, overheat and overload protection circuit, any attempt to short-circuit or to connect one of the output terminals to ground may cause serious damage to the amplifier.
- Make sure the amplifier is turned off before connecting or disconnecting any cable.
- Do not disconnect the amplifiers power cord before the amplifier's power-down sequence is completed (see "Powering Off Process").

## 6

## CONTROLS & USE

### 6.1 POWER ON/OFF

- **Manual Power On Process**
  - Progressive charge of high power capacitors to limit peak current on AC line.
  - Switch on high power supply on output stage.
  - Wait stabilization of high power supply.
- **Manual Power Off Process**
  - Progressive charge of high power capacitors to limit peak current on AC line.
  - Switch on high power supply on output stage.
  - Wait stabilization of high power supply.



## 6

## CONTROLS & USE (Ctd.)

### POWER ON/OFF (Ctd.)

- **Automated Power On/Off Process**
  - The new Trigger function allows for remote control of the product's power state (on/standby) via a cable connected to the amplifier, thereby eliminating the need to manually press the front panel buttons for switching on/standby. The trigger is activated when the amplifier detects a change in the signal state and sends a low or high voltage signal (12V) to the TRIGGER jack connector at the rear of the amplifier. This process employs a device that manages state changes between 0V and 12V.

### MANUAL OPERATION

- On the front plate of the GOLDMUND TELOS 4800 amplifier you will find only two POWER keys.
- The two POWER keys must be activated simultaneously to power the amplifier on.
- This security feature is provided to avoid accidental POWER ON or POWER OFF.
- As soon as the amplifier is connected to mains power, the orange indicator on the front panel will blink briefly every 3 seconds.
- Push both buttons of the front panel simultaneously to turn on the amplifier.
- As soon as the amplifier is fully powered the green indicator will light steadily and the menu will be displayed.

## 6

## CONTROLS & USE (Ctd.)

### MANUAL OPERATION (Ctd.)

- If the digital input is not used, the orange LED is off, showing there is no lock, and the amplifier remains muted until a lock is found. The LED will turn on as soon as the TELOS 4800 receives a digital input.
- In analog mode (XLR & RCA) the orange LED is always on.
- In security mode, the red indicator goes on and a message will be displayed on the front panel.
- By pressing the right key once, the amplifier is put in Operate mode “Unmute”, by pressing the right key once again, the amplifier returns to the menu “Muted” state.
- The amp may be POWERED ON by pressing the two POWER keys simultaneously at any time. It takes up to 50 seconds to CHARGE the capacitors bank.
- The amp may be POWERED OFF by pressing the two POWER keys simultaneously at any time. It takes up to 4 minutes to discharge the capacitors bank.

### 6.3 INPUT SELECTION

The menu is only available from the main screen when the amplifier is muted.

Use the left button to enter the menu and cycle through the menu items.

Once the wanted menu item is shown on the screen, push the right button to cycle through the available settings of the given item.

Once the wanted setting is chosen, push the left button to confirm your choice.

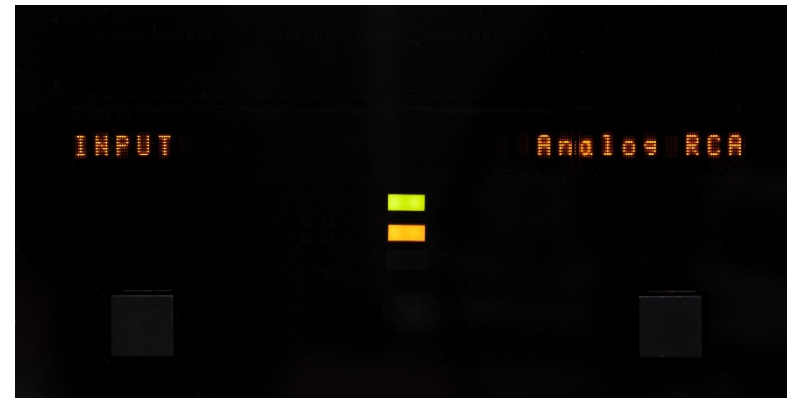
Push the left button again to continue to the next menu item or get back to the main screen

## 6

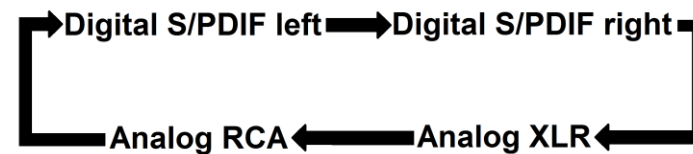
## CONTROLS &amp; USE (Ctd.)

## INPUT SELECTION (Ctd.)

- Left button: to navigate into the menu to select the input, input's gain, and brightness adjustment.
- Right button: to select the digital left/right input, analog input (RCA & XLR), set the inputs gain and mute/unmute the amplifier.



On the input selection menu, one press on the right button moves the input selection to the right as follow:

**Global Gain Setting:**

Each input has its own gain adjustment by 3 dB, from -9 dB to +9 dB.

To select the gain:

- Use the left button to select the input gain.
- Press the right button to adjust it.
- Use the left button again to save the setting.
- One press on the right button changes the gain in steps of 3 dB from -9 dB to +9 dB.

## 7

## SOUND QUALITY OPTIMIZATION

### WARM-UP SONIC EFFECT

When the amplifier has not been used recently it will take 10 to 15 minutes for the amplifier to reach optimum operating temperature.

### "MECHANICAL GROUNDING"

In the GOLDMUND TELOS 4800 amplifier, GOLDMUND has fully implemented an optimized vibration evacuation path. This is called by GOLDMUND: "Mechanical Grounding". The perfect adjustment of this evacuation provides the Telos 4800 with an extraordinary dynamic capability and transparency, especially on low efficiency speakers.

To get all the benefits of this design, the TELOS 4800 must be located on a very rigid support, or better directly on the floor, to be directly coupled with the building's rigid construction. Avoid any decoupling material between amplifier 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 effort.

### SECURITY MODE FEATURE

The TELOS 4800 features two protections circuit:

- Thermal protection (if heatsinks exceed 70 degrees)
- Overcurrent protection & short-circuit protection in the case of a short-circuit between the output ports or if a damaged speaker consumes too much current.

**7****SOUND QUALITY OPTIMIZATION (Ctd.)****SECURITY MODE FEATURE (Ctd.)**

If, for any reason, the amplifier goes into safety mode, the device will automatically switch off and remain in standby mode. In this case, we strongly recommend that you contact your nearest distributor.

**8****MAINTENANCE**

The GOLDMUND TELOS 4800 amplifier usually requires no maintenance.

Use a clean, soft, damp cloth to clean the amplifier surface. Dampen the cloth with water or a mild detergent solution.

Avoid abrasive or harsh cleansers (e.g. products containing sodium carbonate).

**WARNING**

Always turn the power off before cleaning your amplifier.

There are no user serviceable parts inside the TELOS 4800. Unauthorized servicing or alteration invalidates the manufacturer's warranty.

## 9

**TECHNICAL SPECIFICATIONS****OUTPUT POWER**

- Maximum power (IEC60065): 1050 Wrms on 8  $\Omega$  / 1 % THD\*
- Maximum power (IEC60065): 2100 Wrms on 4  $\Omega$  / 1 % THD\*
- Maximum power (IEC60065): 2200 Wrms on 2  $\Omega$  / 1 % THD\*

\*protected by security circuit

**DAMPING FACTOR**

- 600 at 1 kHz / 8  $\Omega$

**DISTORTION**

- IMD (SMPTE), unloaded: < 0.01 %
- THD+N, unloaded: < 0.005 % from 20 Hz to 20 kHz at 30 Vrms output

**OUTPUT FLOOR NOISE**

- Analog input terminated with RCA Shorting Caps, unloaded: < 3  $\mu$ V from 20 Hz to 20 kHz

**GAIN**

- 35 dB, +/- 9 dB (adjustable in steps of 3 dB for each input)

**INPUT**

- Max level before clipping:
- Analog input: 2 Vrms
- Digital input: 0 dBFS

**OUTPUT**

- Max level before clipping:
- 1 % THD, unloaded: 300 Vpp

## TECHNICAL SPECIFICATIONS (Ctd.)

### POWER SUPPLY

- Nominal line voltage: 115 V or 230 V
- Input voltage range: +/- 10 %

### REAR PANEL

- Power cord: universal socket 3 lugs, 16 A
- Main fuses (F1: 2.5A ; F2: 1A ; F3: 8A)
- AC black GND binding post
- Green-yellow AC earth binding post
- Ground lift switch.
- 2 x output binding posts (red & black)
- 1 x output Goldmund speaker 4B type connector
- Analog input RCA unbalanced connector
- Analog input XLR balanced connector
- Digital input and output RCA connectors
- RS232 command connector
- Jack connector for Trigger

### RATED POWER CONSUMPTION

- IEC 60065, 1/8 Output Power at 8  $\Omega$ : 680 W

### DYNAMIC RANGE

- 22 kHz measurement bandwidth (flat), true RMS unloaded: 117 dB

### SIZE & WEIGHT (per unit)

- 42 W x 82.6 H x 50 D (cm)
- 16.54 W x 32.52 H x 19.69 D (inch)
- 195 kg

Information and product specifications contained in this manual are subject to change without prior notice.

Visit our website at [www.goldmund.com](http://www.goldmund.com)