

# USER MANUAL

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TELOS 690  
Integrated Stereo Amplifier



Thank you for purchasing the Goldmund TELOS 690.

You have acquired one of the finest Universal Power Amplifier ever crafted for professional and domestic use.

Please allocate some time to peruse this manual and you shall discover invaluable insights to elevate your auditory enjoyment of the TELOS 690 to unprecedented heights.

## **INTRODUCTION**

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TELOS 690

Integrated Stereo Amplifier

Since 1978, Goldmund has been dedicated to developing audio equipment of the highest quality and accuracy to immerse you in the most realistic audio experience possible.

At Goldmund, we are committed to being at the forefront of the creation, development, and manufacture of the industry's most advanced technologies, including audio systems and music distribution.

Our aim is to provide the most accurate sound possible, with the least possible loss of quality during the various stages. With a team of rigorous engineers, Goldmund is constantly pushing back the boundaries of the exceptional to keep developing its own ever more innovative technology.

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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	7
5	1st INSTALLATION & CONNECTIONS	8
6	FRONT PANEL FUNCTIONS	8
7	REMOTE CONTROL FUNCTIONS	9
8	SOUND QUALITY OPTIMIZATION	10
9	MAINTENANCE & CLEANING	10
9	TECHNICAL SPECIFICATIONS	11

## 1 PRELIMINARIES

The connection between the analogue and digital sources, the acoustic processor, as well as between pre-amplifiers and power amplifiers, holds paramount importance.

Ultra-low reflection interconnect cables are absolutely mandatory to retain the time integrity that the amplifier is designed to provide. The use coaxial links of highest quality cable in order to maintain the time accuracy are highly recommended, especially for long distances.

## 2 UNPACKING

You will find the following items within the custom packaging:

- The amplifier
- The power cord
- The remote control
- This manual

Please unpack the components with care.

### CAUTION

Should you need to return the TELOS 690 to the factory or your local representative for warranty repair, please be aware that it must be repacked using the original packaging.

This packaging has been designed to specifically safeguard your TELOS 690 during transit. Utilizing alternative packaging is likely to result in damage and invalidate warranty coverage.

### 3 CHOICE OF LOCATION & COOLING

The TELOS 690 amplifier, as all high quality amplifiers, generates a substantial amount of heat when operating at high levels and necessitates adequate ventilation. It is imperative to ensure adequate cooling for the heat sinks. Please refrain from placing the amplifier in poorly ventilated areas and avoid placing temperature-sensitive equipment on top.

Given its weight and to maximize the impact of the integrated "Mechanical Grounding" structure, it is advisable to place the TELOS 690 on the floor. Alternatively, robust supports with rigid floor transmission may be employed.

The TELOS 690 is equipped with four adjustable conical feet, integral to the renowned Goldmund "Mechanical Grounding" principle. These feet play a pivotal role in ensuring effective vibration transmission to the amplifier's support structure, thereby facilitating the expulsion of detrimental vibrations within the unit. Depending on the levelness of the chosen installation surface, it may be necessary to adjust one or more of these feet to ensure complete contact points with the supporting surface and amplifier alignment.

To achieve optimal sound quality, position the TELOS 690 in a location on a shelf or piece of furniture where it is isolated from vibrations of mechanical components, including the transport mechanism of the player.

## 4

## LINE VOLTAGE ADJUSTMENTS

The Goldmund TELOS 690 features an internal power supply, specially developed by Goldmund, that ensures completely independent voltage distribution between the USB component and the digital/analog circuitry.

TELOS 690 amplifier is configured to function with the mains voltage specific to your geographical area. If any uncertainty arises, verify the power supply voltage switch located on the rear panel. Should you relocate subsequent to the amplifier's purchase to a region with a distinct AC mains voltage, please seek guidance from your local Goldmund dealer for expert support

### ATTENTION

For the 220V model, the TELOS 690 amplifier is designed to function optimally with a mains voltage of  $220V \pm 10\%$ . In the case of the 110V model, it is imperative that the mains voltage be consistently maintained at  $110V \pm 10\%$ . If your mains voltage falls outside these specified tolerance ranges, it is advisable to seek assistance from your authorized GOLDMUND dealer.

Please ensure to check the value of the main line fuse, located on the amplifier's rear panel.

**5****1<sup>st</sup> INSTALLATION & CONNECTIONS**

Connect the power cord to the rear of the amplifier and insert it into the nearest wall socket. For safety, use exclusively a 3-pin grounded plug. For optimal amplifier performance, refrain from using multiple plugs or extension leads.

Connect a computer, CD/DVD, or Blu-ray player to the rear panel of the TELOS 690 integrated amplifier through one of the following ports: USB Audio (Input 1), Toslink Optical connector (Input 2), RCA Digital (Input 3), or RCA Analog (Inputs 4 to 8).

Once the input source is connected, link your TELOS 690 to speakers using the two speaker output connectors located on the unit's rear panel.

**ATTENTION**

A residual high-frequency noise might be audible under certain conditions if an analog input is left open and selected. This disturbance does not affect the amplifier's performance but can be easily prevented by applying short-circuit plugs to all unused inputs.

**6****FRONT PANEL FUNCTIONS**

The rear panel inputs can be chosen by using the input knob located on the front panel. When a digital input is selected, the orange LED on the front panel will only illuminate when the digital source is locked to the source frequency. For analog inputs, the orange LED remains constantly on.

**WARNING:**

For safety reasons, connect all cables between your sources and speakers to your Telos 690 before powering it on.



## 6

**FRONT PANEL FUNCTIONS (Ctd.)****Output Volume Adjustment**

The volume level can be manually adjusted using the knob on the front panel or via remote control. This adjustment affects all channels simultaneously.

## 7

**REMOTE CONTROL FUNCTIONS****Output Volume Adjustment**

To adjust the overall volume, use the VOL- and VOL+ keys.

**Input Source Selection**

The IN- and IN+ buttons, located at the center left and right, are used to select the audio source. The left button (IN-) decreases the input number, while the right button (IN+) increases it.

**Muting/Standby**

The mute function is controlled via the remote. To mute or unmute the TELOS 690, briefly press the MUTE/STDBY key. The orange LED will blink to indicate Mute mode. To enter Standby mode, press and hold the MUTE/STDBY key until the TELOS 690 switches to standby; the orange LED will remain lit to show Standby mode.

**Balance Adjustments**

To activate balance control, press the BAL key on the remote. Adjust the balance using the < button for the left side and the > button for the right side. This adjustment can be made when the LED on the BAL key is on. To center the balance, press both the < and > keys simultaneously. The BAL LED will blink twice to confirm the command.

To memorize the current volume setting, press the VOL- and VOL+ keys simultaneously for 3 seconds. The BAL LED will blink for 2 seconds, indicating that the current volume level has been memorized.

To recall the memorized volume, briefly press both the VOL- and VOL+ keys simultaneously. The previously saved volume setting will be automatically restored.

**Note:** It is not possible to memorize the volume when it is set to 0.

## 8 SOUND QUALITY OPTIMIZATION

### WARM-UP SONIC EFFECT

When the amplifier has been powered off for an extended period, the optimal sound quality is attained gradually. It may require around 15 minutes for the amplifier to reach its optimal operating temperature, as the circuits need to warm up to approximately +55 degrees Celsius (equivalent to 131 degrees Fahrenheit).

## 9 MAINTENANCE & CLEANING

The TELOS 690 amplifier typically requires minimal maintenance. There are no user serviceable parts inside the TELOS 690. Unauthorized servicing or alteration invalidates the product's warranty. Should maintenance ever become necessary, please get in touch with your authorized Goldmund dealer.

Prior to cleaning your amplifier, always ensure that the power is switched OFF.

When cleaning the external metal surfaces of the amplifier, make use of a clean, soft, damp cloth. You can lightly moisten the cloth with water or a mild detergent solution. Refrain from using abrasive or harsh cleaning agents (such as products containing sodium carbonate).

The identification plate is coated with a precious metal. Simply clean it using a soft cloth, without the need for any chemical solutions.

# 9

## TECHNICAL SPECIFICATIONS

### POWER SUPPLY

- Nominal line voltage: 110 V or 220 V
- Input voltage range: +/- 10 %
- 2x 350 VA Toroidal Power Transformer
- Capacitor bank: 46'000  $\mu$ F

### RATED POWER CONSUMPTION

- IEC 62368-1, 1/8 Output Power at 8  $\Omega$ : 275 W

### REAR PANEL

- 2 x output binding posts (left & right)
- On/Off power switch key
- Voltage input selector
- RS232 Command connector
- 1 x USB device: Audio Class 2.0 (no driver required on Mac OS X as of v.10.6.4 nor on Linux, driver required only for Windows, contact your Goldmund representative):
  - Sample rate up to 384 kHz/Bit depth up to 32
  - DSD64, DSD128 over PCM capabilities
- 1 x Toslink Optical
- 1 x Digital S/PDIF coaxial RCA 75 Ohms
- 5 x Analog RCA (left & right)

### INPUT

- Max level before clipping, Analogue input: 1 Vrms
- Max level before clipping, Digital input: -6 dBFS

## 9

**TECHNICAL SPECIFICATIONS (Ctd.)****OUTPUT**

- Max level before clipping, 1 % THD, unloaded: 170 Vpp

**OUTPUT POWER**

- Maximum power (IEC 62368-1): 2 x 250 Wrms on 8  $\Omega$  / 1 % THD  
2 x 320 Wrms on 4  $\Omega$  / 1 % THD

**DISTORTION**

- IMD (SMPTE), unloaded: < 0.02 %.
- THD+N, unloaded: < 0.08 % from 20 Hz to 20 kHz at 30 Vrms output.

**OUTPUT NOISE FLOOR**

- Analog input terminated with RCA Shorting Caps, unloaded: < 10  $\mu$ V from 20 Hz to 20 kHz.

**GAIN**

- 35 dB

**DYNAMIC RANGE**

- 22 kHz measurement bandwidth (flat), true RMS unloaded: 100 dB

**DAMPING FACTOR**

- 600 at 1 kHz / 8  $\Omega$

**SIZE & WEIGHT**

- 44 W x 16.5 H x 44.5 D (cm) – 17.3 W x 6.3 H x 17.5 D (inch).
- 28 kg.

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