

THE  
GRYPHON



**Kalliope**  
Owner's Manual

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## Introduction

Welcome to the global family of proud owners of fine audio components from Gryphon Audio Designs of Denmark. Your new Gryphon unit has been painstakingly designed to re-create the sound of live music taking place in its original recorded space. Every Gryphon product is designed to cater to the needs of the most discerning music enthusiast with sumptuous styling and superb user-friendliness which elevate it above the mundane world of conventional audio components.

As audiophiles, the members of the Gryphon design team are constantly reminded to keep their priorities straight. We are not involved in “hi-fi” for its own sake, but strictly as a means to an end, in the service of our life-long

love of the live music experience in all its sonic and emotional glory.

Our higher goal is to bring to the listener a “You-Are-There” sensation. In taking up this challenge, the Gryphon designers go back to basics to analyze the essential nature of the live music experience. For us, an awareness of soundstaging, ambience and concert hall dimensions are necessary components. Dynamics and an unambiguous sense of instrument location even in the loudest passages are also high priorities. To achieve these objectives, Gryphon products offer exceptional speed and agility along with seamless coherence in the time domain.

Since 1985, Gryphon Audio Designs has quietly gone about the business





Flemming E. Rasmussen painting 1967



The Gryphon Head Amp 1985

of creating fine home audio components. We know that you will appreciate and enjoy the benefits of our accumulated experience and share our abiding passion for music.

### **The Gryphon**

In Greek mythology: A fabled creature, half-lion and half-eagle, combining the power of the “King of Beasts” with the grace of the “King of Birds”. The guardian of the source of gold and protector of the Dionysian cup of infinite wealth.

In the real world: An acclaimed Danish audio engineering company employing cutting edge technology and common sense in the pursuit of the purest musical experience. We feel that the gryphon is an appropriate symbol for our high sonic goals.

### **The Man**

Gryphon Audio Designs is

the brainchild of Flemming E. Rasmussen and the fulfillment of a lifelong dream to allow the purest essence of the live music experience to be recreated in the home environment.

Rasmussen holds a degree in painting and graphic arts from the Aarhus Art Academy, Denmark. During his studies, Rasmussen developed close relationships with the local music community and designed many LP covers and concert posters. After graduation, he taught photography and painting and designed textiles, before founding 2R Marketing, which quickly became Denmark’s leading High End audio import company.

Gryphon Audio Designs was founded in 1985 as an offshoot of 2R Marketing, The first product, the now

legendary Gryphon Head Amp, grew from a one-off spare time project developed only for the designers' own home systems. Although the Gryphon project was initially strictly a hobby, not an actively pursued commercial venture, demand generated by reviews and word-of-mouth led to the formal establishment of Gryphon Audio Designs as a separate corporate entity. Following the immediate success of the Gryphon brand, all import business was phased out in 1993, so that Rasmussen could dedicate his efforts entirely to Gryphon.

### **Made In Denmark**

Every product from Gryphon Audio Designs is designed and built in Denmark. This is much more than just a geographical fact. It is also a seal of approval, a stamp of quality. Living in a region with no natural

resources (no oil, coal, precious metals, etc.), the Danes have learned to rely on their quick wits and skilled hands. Innovative technology, beautiful craftsmanship, pride in one's craft and a keen eye for attractive design are some of the long-standing Danish traditions which are distilled to their finest essence in every unit that bears the Gryphon name.

### **Musical Objectives**

While scientific method and sophisticated technology play an important role in our electronics design work, at Gryphon we never lose sight of the fact that the keen ears of an experienced listener are the most crucial "calibration tools." Therefore, every Gryphon product exists for one simple purpose: to bring the user closer in the never-ending quest for a more natural and convincing musical illusion.



Gryphon is located in beautiful tranquil surroundings.

every Gryphon design has been built to cruise effortlessly through even the most demanding musical passages, regardless of volume level, with a musical presentation defined by supreme articulation and immediacy, subtle dynamic shading and razor-sharp focus. Refinement and delicacy are combined with power and authority for a natural, involving listening experience.

### **The Gryphon Master Tape Collection**

In the Gryphon listening rooms, we are fortunate to possess a unique library of more than 1,000 original master tapes of recordings made during the Golden Age of studio engineering from 1956-1976.

Unlike conventional commercial releases, our master tapes capture the dynamic contrasts and

subtle inner harmonic structure of the musical event, forcing us to work to a higher standard in our efforts to maintain the integrity of the original musical performance.

### **Design Principles**

With state of the art technical equipment and some of the finest minds in the audio engineering field at our disposal, the Gryphon brand name continues to define the highest audiophile standards of subjective and technical performance.

The dual mono configuration radically eliminates any possibility of crosstalk or other interference between channels and provides infinite channel separation which contributes to the ability to create space, focus, depth and transparency.

Because the electrical power coming out of your wall fluctuates wildly in

terms of voltage and distortion, Gryphon incorporates heavily regulated multi-stage power supplies that act as effective mains conditioning filters. Displays and control circuits are fed by a separate power supply to isolate any digital noise artifacts and effectively prevent them from contaminating the signal path.

While the printed circuit boards in more conventional audio products utilize conductor tracks a mere 35 um thick, Gryphon employs at least 70 um traces of the highest purity.

Beginning with our very first product, "The Head Amp" all Gryphon products have featured extremely wide frequency bandwidth, because the ability to reproduce ultrasonic frequencies with no difficulty ensures linear phase across the audible frequency range.

The implementation of circuits with wideband frequency response is a painstaking endeavor in which the actual layout and ground pattern of the PC boards are crucial to the achievement of superior sonic performance with no loss of inherent stability.

Wideband frequency response ensures the high slew rate essential to the realistic handling of the ultra-fast transients which routinely occur in live music and is crucial in recreating the natural decay of musical instruments. Wide bandwidth also improves phase characteristics, for more correct soundstaging and imaging.

All Gryphon designs are realized with an absolute minimum of negative feedback, which when present in large amounts can actually increase TIM

distortion. All Gryphon preamplifiers are designed with zero, or extremely low, negative feedback. Gryphon power amplifiers apply negative feedback judiciously for improved linearity and bandwidth.

Gryphon research into the detrimental effects of magnetically induced distorted (MID) has led to the elimination of magnetizable materials wherever possible. To eliminate the effects of stray magnetic fields, non-magnetic materials are employed throughout, with the unavoidable exception of the transformer shield box.

The mechanical design of the cabinet and assembly methods are all carefully calculated to ensure minimal resonance, either through the use of mechanically grounded high mass or decoupling.

Vibration-sensitive components, capacitors in particular, are thus guaranteed a non-resonant environment.

The heavy, thick chassis offers a vibration-proof environment for the sensitive electronics inside and provides crucial shielding from a polluted world of low and high-frequency radio waves, power-line radiation and other electrical interference. Meticulous attention to such issues makes a significant contribution to the relaxing, open and transparent Gryphon sound.

Unique, non-invasive protection circuitry offers reliable, fuss-free protection without compromising signal purity and signal path simplicity, with no conventional relays in the signal path to degrade or compress sound.

The ground path has been

carefully laid out in order to achieve superior sonic performance with no loss of stability. Component layout has been designed to ensure the shortest conceivable signal path.

Exhaustive investigation underlies the selection of every component part and many original, proprietary components are custom-built exclusively for Gryphon. Because what is left out is just as important as what goes in, an absolute minimum of internal wiring is included.

By lavishing attention on each aspect of the circuit and fully understanding the purpose and behavior of every single part of the whole, our designers can optimize performance in each section, before moving on to the next step. This ensures simplicity, a short signal path and a unity of purpose with a

single, well-defined objective: musical purity. In the interest of ultimate fidelity, tone controls, balance controls and other unnecessary components have been banished from the signal path.

### **Exterior Design**

From the very beginning, every Gryphon product has offered stunning audio performance, sumptuous styling and superb user-friendliness, catering to the needs of the discerning audiophile who demands musicality, convenience and aesthetics, all without compromise.

In every Gryphon product, form follows function in a unique synthesis of aesthetics and practicality. Gryphon stands for sophisticated technology with a high standard of industrial finish that also incorporates the best of handcraftsmanship.

The peerless finish, build quality, ergonomics and pride of ownership that contribute to the totality of the Gryphon concept can only be fully understood and appreciated up close and in person.

Rasmussen's background in fine arts and industrial design gives every Gryphon product a distinctive, luxuriant finish which arises organically out of the audio circuit design and the user interface for a truly unique integration of form and function.

### **Manufacture and Assembly**

At our laboratories and manufacturing facilities in Denmark, we maintain full control over every aspect of development and production, and the members of our conscientious staff diligently follow each Gryphon model from initial concept to early prototype, through to final quality control.

Printed circuit boards are assembled by a supplier of precision military and medical equipment with strict standards of quality control and pre-inspection of components. Chassis parts are manufactured by a specialist chosen solely for the outstanding quality of workmanship. In every aspect of every Gryphon product, the same stringent standards of excellence apply.

Following a 48-hour burn-in, each product is tested again, before being subjected to Gryphon's custom-developed transport simulator which simulates the inevitable shaking that a product will encounter in transit.

Correct AC polarity contributes greatly to optimum performance. If you are not using a three-pin, non-reversible power plug, please experiment with the orientation of the

plug for optimum performance.

### **Burn-In and Warm-Up**

Your Gryphon unit has been thoroughly tested and burned in before shipping. Performance will continue to improve during the first 40 – 50 hours of normal use. After this period optimum performance will be reached approximately 45 minutes after turn-on. With the exception of Class A power amplifiers, we recommend leaving your Gryphon components powered up at all times.

### **Balanced Connections**

All Gryphon products uses the AES standard for balanced connections.

1. Ground
2. Positive
3. Negative

We recommend the use of dedicated balanced cables. Avoid the use of adaptors as they degrade performance.

### **Choice of Cables**

Because your Kalliope is a high-resolution Gryphon audio device, it will immediately reveal the characteristics and possible limitations of the other components in your system, as well as those of the interconnects and loudspeaker cables used to connect your system.

Wiring should never be utilized as "equalizers" to correct errors elsewhere in the system. Instead, any error should be corrected at the source, so that interconnects and loudspeaker cables can be selected solely on the basis of sonic neutrality. For this reason, we employ Gryphon's own range of interconnects and cables in every stage of the design of every Gryphon product.

### **Care and Maintenance**

Gryphon products are handcrafted by individuals who take great pride in

the high level of fit and finish which we achieve. To maintain your Gryphon components in pristine condition, please follow these simple instructions.

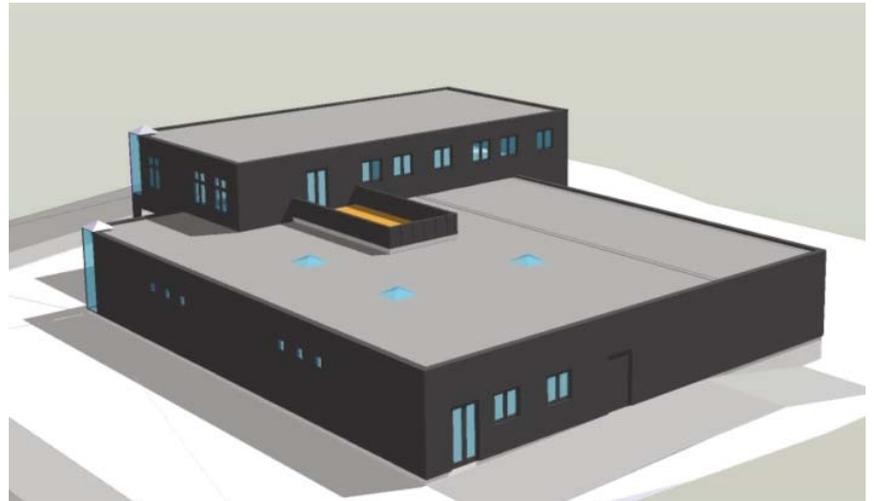
Metal surfaces may be cleaned with a damp cloth. Some product made for treatment of vinyl interiors in cars may be useful. Test the product on a non-visible surface, before using any fluids.

### **Unpacking**

During unpacking and installation, please take care to avoid scratching the Gryphon Kalliope. Hard, sharp objects such as tools should not be nearby during this process. You might want to remove your wrist-watch, rings or other jewellery before handling the preamplifier. Please keep the carton and all packing materials in a dry place for safe future transportation.

The following items are enclosed:

1 Kalliope  
1 Powercord  
1 pair of gloves  
1 Cleaning cloth  
1 Acrylic polish  
1 Warranty card,  
please fill out and return  
asap or register at:  
[www.gryphon-audio.com](http://www.gryphon-audio.com)



The new The House of Gryphon 2014



## USER INSTRUCTIONS



ON/STB touch button: Green color when ON and Red color when in standby mode.

Blue LED indicator to the left of ON/STB symbol:

1. Blinking tree times in *STANDBY* mode indicates wrong mains voltage.
2. Blinking in *ON* mode indicates that the USB Super-Cap supply is being charged. The blue LED indicator stops blinking when the USB Super-supply is fully charged.
3. Blue LED is on when the VFD display is OFF. Display OFF mode can be chosen in the Kalliope menu.



When on, the signal through the Kalliope DAC is muted. Mute mode is indicated in the VFD display.



Changes the Kalliope input down by one step.



Changes the Kalliope input up by one step.

## DISPLAY information:

1. Actual input number (1 to 5)
2. FS: actual sample frequency.
3. Input name, which can be changed via the menu
4. Actual format being played, PCM or DSD
5. Kalliope locked/unlocked to input signal, indicated by padlock symbol.
6. Actual Digital Filter being used



Changes the Kalliope DAC's digital filter slope for PCM or DSD formats:

- 1 .PCM: 'SLOW' indicates Slow Roll Off (short Group Delay) digital filter (default).
2. PCM: 'FAST' indicates Sharp Roll Off (long Group

Delay) digital filter.

3. DSD: '50kHz' -3dB pass band frequency (default).
4. DSD: '60kHz' -3dB pass band frequency.
5. DSD: '70kHz' -3dB pass band frequency.



Selectable up-sampling, under the following conditions:  
PCM format below  $F_s=200\text{kHz}$ .

When ON, the Kalliope up-samples to  $F_s=210\text{kHz}$ .

Up-sampling is ON when the green LED indicator above the 'UP-SA' touch button is on.



Selectable inversion of the Kalliope's output signal phase.  
The output signal is inverted when the green LED indicator above the 'INV' touch button is on.



Several options can be chosen via the 'MENU' function:

1. 'TIME TO STANDBY' when no music is played back and without activating Kalliope buttons:
  - a. 30 minutes (default)
  - b. 60 minutes
  - c. 2 hours
  - d. 4 hours
  - e. infinite
2. 'WORD CLOCK SYNC', active when 'ON'. 'OFF' by default.
3. 'OUTPUT ADJUST', 0dB when 'OFF' (default). -6dB attenuation when 'ON'.
4. 'DSD LP-FILTER', 1. order analog Low-Pass filter 'ON' (default) or 'OFF'.
5. 'DISPLAY BRIGHTNESS', adjustable in five steps:

- a. 100%, full brightness (default)
- b. 75%
- c. 50%
- d. 25%
- e. OFF, display turns off after 15 sec. Display

turns on again when a front button or the Kalliope remote is activated. Display turns automatically off after 15 sec. from last button activation, indicated with the blue LED, to the left of ON/STB button, turning on.

6. 'NAME INPUT'. This menu item makes it possible to name each Kalliope input with a standard pre-defined name or a custom chosen name. Each input name can be up to 8 characters and/or figures long.

7. 'RESTORE SETTINGS', restores all settings to factory defaults.

**WARNING: 'Restore Settings' also deletes all specified input names, entered by the customer!**

## MENU guide:

To be able to navigate through the menu options, after entering the Kalliope MENU option, some of the Kalliope front touch buttons changes function:

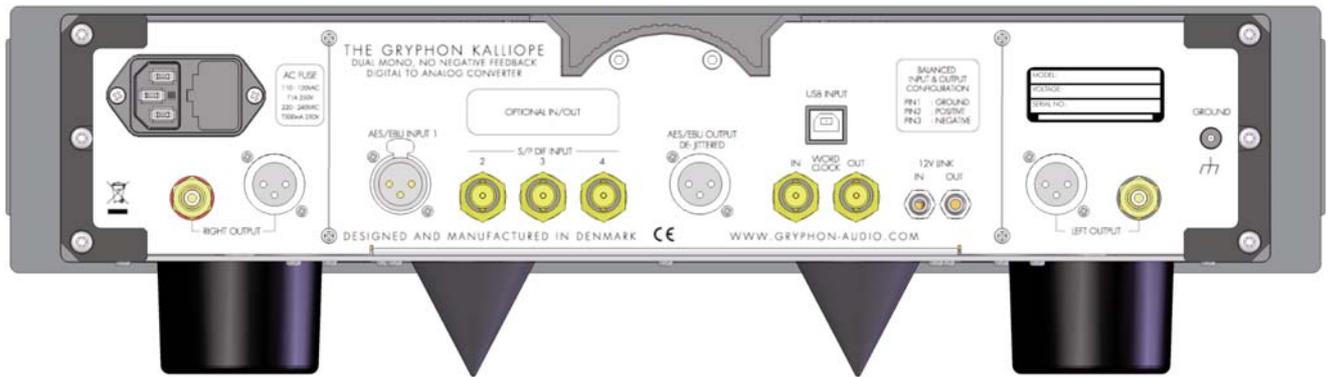
'INV.' Now acts as the menu ENTER button, confirming the selected option.

'MENU' button is now used to toggle through the above listed menu options.

'INP-DOWN' and 'INP-UP' buttons now scrolls down and up between the possible sub-menu settings.

If the sub-menu 'NAME INPUT' and 'CUSTOM' have been chosen, the above 'INP-DOWN' and 'INP-UP' buttons are used to scroll between the possible characters and figures.

'FILT' and 'UP-SA' buttons moves the cursor to the left or right where the character or figure is to be placed.



## Kalliope connections:

From left:

**Mains input:** actual working mains voltage is printed on the Serial Number label on the right side. Only connect the Kalliope to the specified voltage!

**Right channel Analog outputs:**  
Single-ended RCA and balanced XLR\*.

### **AES/EBU INPUT 1:**

Connect a digital source with balanced 110Ohm output to this XLR\* input.

### **S/PDIF INPUT 2-4:**

Connect digital sources with single-ended 75Ohm output to these inputs.

### **AES/EBU OUTPUT DE-JITTERED:**

This de-jittered XLR\* output, outputs the actual selected INPUT 1, 2, 3 or 4 signal.

**WORD CLOCK IN/OUT:**

The word clock signal, from an external reference clock generator, on this input synchronizes the internal digital signal, from the actual selected

INPUT 1, 2, 3 or 4, to this reference clock signal.

Word clock sync. have to be set to 'ON' in the Kalliope menu to be active.

The word clock input accepts signals between 0.5Vpp – 5Vpp amplitude and between 22.0 kHz to 192.0 kHz, duty cycle typ. 50/50%. Input impedance is 75Ohm.

The phase of the reference clock signal must be within +/-5% of the actual INPUT 1, 2, 3 or 4 word clock to work properly.

**USB INPUT:**

Connect to PC or Mac through your preferred dedicated USB Audio cable.

Please see separate PC/Mac player information and guide on:

[www.gryphon-audio.com](http://www.gryphon-audio.com) .

Accepted USB formats and sample rates:

PCM (Pulse Code Modulated): Fs: 44.1Khz, 48Khz, 88.2Khz, 96Khz 176.4Khz, 192Khz, 352.8Khz or 384Khz

DSD (Direct-Stream Digital):Mac: DSD64 and DSD128

Windows: DSD64, DSD128, DSD256 and DSD512

NO Drivers needed for Mac OSX 10.6+ and Linux with UAC2 compliant kernel.

Kalliope Kernel-Streaming/ ASIO drivers for MS OS XP to

Win8 32-64bit, can be downloaded at:  
[www.gryphon-audio.com](http://www.gryphon-audio.com) .

**12V LINK IN/OUT:**

+12VDC on this 12V link INPUT brings the Kalliope DAC from Standby to ON mode. The Kalliope DAC reenters Standby mode when the +12VDC voltage is no longer present.

The 12V link OUTPUT connector, outputs +12VDC when the Kalliope is ON.

Mini Jack Mono connectors with + on the tip are to be used.

Left channel Analog outputs:

Single-ended RCA and balanced XLR\*.

**CHGND** (chassis ground) connector.

\* XLR: PIN1: GROUND, PIN2: POSITIVE, PIN3: NEGATIVE

## **Warranty**

The Kalliope is warranted against failures arising through faulty workmanship and materials for a period of 2 years from date of purchase. The warranty is not transferable.

**This warranty is only valid in the country where the product was purchased.** All claims under this warranty must be made to the distributor in the buyer's country by returning the unit securely packed in the original box with all accessories, postage/freight prepaid and insured. The unit will be repaired or replaced at no charge for parts and labor.

**This warranty remains valid only if the serial number of the unit has not been defaced or removed and if repairs are performed only by authorized Gryphon dealers or distributors.** It does not cover damage due to misuse, accident or neglect. This warranty is not valid if the operation voltage of the product has been changed. The distributor or manufacturer, Gryphon Audio Designs, Denmark, retains the exclusive right to make such judgement on the basis of inspection.

The retailer, distributor or manufacturer of the Gryphon shall not be liable for consequential damage arising from the use, misuse or failure of this product, including injuries to persons or property.

**To qualify, the enclosed warranty registration card must be filled out and returned to the manufacturer within 10 days of purchase.**

Alternatively, you may choose to register your Gryphon on our website:

[www.gryphon-audio.com](http://www.gryphon-audio.com)

