

THE GRYPHON



Owners manual Sonett phono stage

manual vers. 1.3

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.

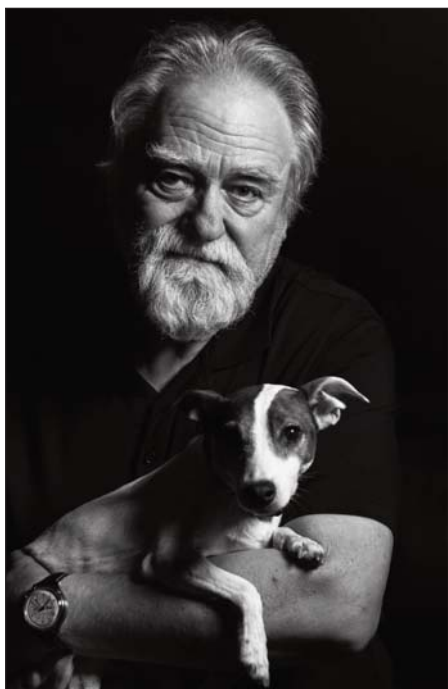
Our higher goal is to bring to the listener a “You-Are-There” sensation. In taking up this challenge, the Gryphon designers go back to basics to analyze the essential nature of the live music experience. For us, an awareness of soundstaging, ambience and concert hall dimensions are necessary components. 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 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.

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 micron thick, Gryphon employs at least 70 micron 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 ultra-sonic 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 negative feedback. Power amplifiers apply a minimum negative feedback judiciously for improved linearity and bandwidth.

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 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, random products are tested again. During development products are being subjected to Gryphon's custom-developed transport simulator which simulates the inevitable shaking that a product will encounter in transit. The product is placed on top of a very large loudspeaker which plays a special CD with low frequencies which simulate the vibrations of an airplane. Each unit "travels" the equivalent of 40 round trips from Denmark to Australia before leaving the factory.

AC Voltage

Your Gryphon unit is especially made for the AC voltage of the country to which it has been shipped. If the voltage has been changed, the warranty is void and the product may be unsafe or malfunction. Do not use voltage converters, due to the high power requirement they may provide a fire risk or at best, degrade performance.

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 available after 30 minutes.

Choice of Cables

Because your Sonett is a high-resolution Gryphon audio device, it will immediately reveal the characteristics and possible limitations of the other components in 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.

A very important Gryphon topology keypoint has always been the ability to obtain near perfect phase response - the foundation for a realistic and stable soundstage - this requires wide bandwidth.

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.

Acrylic surfaces should only be wiped with a very soft, dry cloth. Small scratches may be removed with fiberglass polish. Fingerprints may be removed with a damp cloth. Do NOT use spirits or paper tissue



The Gryphon Sonett

The Gryphon Vinyl Commitment

Gryphon Sonett Phono Stage Features

- Zero negative feedback
- True Dual Mono Class A topology
- Moving Coil and Moving Magnet cartridge compatible
- MC load impedance can be set externally with left/right rear panel switches
- Internal switching between MC and MM
- Polypropylene capacitors used in RIAA correction stages
- Discrete components in analogue stages
- DC-coupled topology from input to output
- Low noise +/- 21VDC regulated voltage supplies for excellent analogue THD and noise suppression
- Ultra-short signal path with minimal internal wiring
- Two-layer printed circuit board with 70 µm copper traces on both sides
- PCB-mounted sockets eliminate wiring and shorten signal path
- Gold-plated phono input and output sockets with Teflon insulation
- Designed and built in Denmark

Gryphon Audio Designs of Denmark have maintained a consistent commitment to vinyl reproduction from the creation of the company in 1985, right up to the launch of the Gryphon Sonett Phonostage.

Ultimate LP playback was the inspiration for our very first product, the now legendary Gryphon Head Amp. To this day, to many, the LP remains the finest high fidelity medium ever offered for home use with a catalogue of titles that never to be rivalled by the compact disc.

In a concerted effort to bring the performance of the reference level Gryphon Legato Legacy phono stage to more affordable price points, Gryphon initially offered the Sonett in a modular form for optional installation in the Gryphon Diablo 300 and Diablo 120 integrated amplifiers. Haute Fidélité (France) praised the module for “some of the most well-defined vinyl playback that we have ever experienced in our listening room.”

However, vinyl connoisseurs with other system configurations generated immediate demand for a stand-alone version with independent dual mono power supply that would make the fruits of Gryphon's explorations into the latest circuit topologies, low-noise component breakthroughs and power supply innovations accessible to all.

The Sonett MM/MC Phonostage is also the perfect companion for the Gryphon integrated amplifiers if an outboard vinyl solution is desired.

The Gryphon Sonett is a fully discrete, DC coupled design employing exclusively polypropylene capacitors for precision RIAA correction.

Rear panel switches offer multiple options for selection of the desired MC load (10, 20, 80.6, 100, 200 or 402 Ohms). Multiple load options can be combined in parallel for even more options. For instance, 80.6 ohms can be activated together with 100 Ohms to achieve a load of 45 Ohms.

Gryphon Sonett employs only the finest components, including Wima polypropylene capacitors and polymer coupling capacitors, Schottky barrier diodes with low Von voltage. Separate Talema toroidal power transformers for each channel ensure minimal magnetic radiation. Low-noise linear series regulators deliver a total of 22,400 μ F per channel.

The transformers are mounted behind the front panel as far away as possible from the phonostage circuit to effectively isolate it from transformer radiation. The internal power wiring from the rear IEC socket to the power switch is mounted in a shielded channel to minimize risk of 50/60 Hz interference.

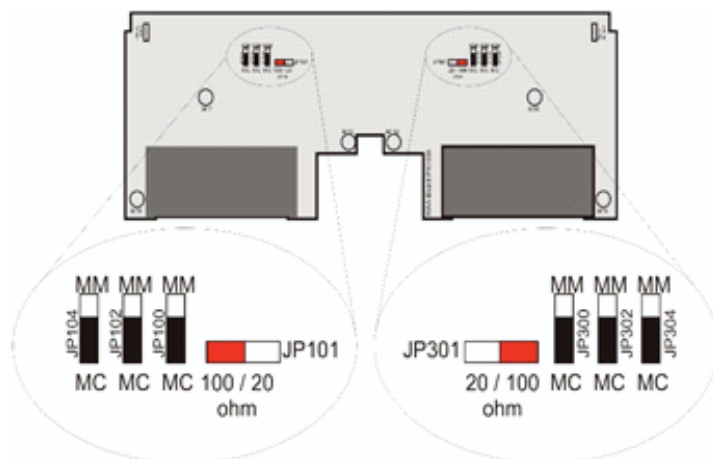
The Gryphon Sonett Phonostage and will provide a significant upgrade for any system assembled to extract the very best from black vinyl grooves to enlighten the lives of dedicated music lovers for years to come.

Sonett specifications.

Gain	
Moving coil (MC)	64dB
Moving magnet (MM)	42dB
Impedance:	
Moving Coil (MC)	10 to 402 Ω
Moving Magnet (MM)	47k Ω / 200pF
S/N ratio:	
MC I nput 2.5mV, 1kHz	>72dB
MM Input 250mV, 1kHz	>84dB

Sonett Custom MC load

This is done internally. To avoid electrical shock, switch off mains before opening the Sonett.



JP101 and JP301: Leave in open position (NO jumpers mounted) or jumpers fitted in outer positions (100 ohm).

Selecting MC or MM mode:

MC mode: JP100, JP102, JP104, JP300, JP302, and JP304 all fitted towards the front of your Sonett amplifier.

MM mode: JP100, JP102, JP104, JP300, JP302, and JP304 all fitted towards the rear of your Sonett amplifier

**Sonett MC loading coding
via left /right switches on
Sonett back panel.**

<u>SWITCH No.</u>	<u>MC LOAD</u>	<u>MM LOAD</u>
1	10 Ω	OFF 47K Ω // 200 pF
2	20 Ω	OFF 47K Ω // 200 pF
3	80.6 Ω	OFF 47K Ω // 200 pF
4	100 Ω	OFF 47K Ω // 200 pF
5	200 Ω	OFF 47K Ω // 200 pF
6	402 Ω	OFF 47K Ω // 200 pF
2 + 3	16 Ω	
3 + 4	44.6 Ω	
4 + 5	66.7 Ω	
5 + 6	133.6 Ω	

It is possible to set the Sonett MC load to a user defined impedance (MC LOAD) below 402Ω. Please follow the below procedure to calculate optional PCB resistor values:

Load resistor, position R_OPT_L and R_OPT_R can be found on the Sonett main Printed Circuit Board, right next to the MC load switch SW1 and SW2.

$$R_OPT_L = \frac{402 \Omega}{\frac{402 \Omega}{MC\ load} - 1}$$

$$R_OPT_R = R_OPT_L$$



LEFT/RIGHT BACK PANEL SWITCH NO. 6 NEEDS
TO BE **ON!**

ALL OTHER BACK PANEL SWITCHES NO. 1-5
MUST BE **OFF!**

Warranty

Your Gryphon Sonett is warranted against failures arising through faulty workmanship and materials for a period of 3 year from date of purchase.

The warranty is not transferable. It covers the first owner only.

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. Warranty is void if products are modified/tweaked.

The warranty 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.

Service, warranty claims or questions

Please always contact the dealer where you purchased the product, he is responsible for warranty.

Do not ship products to the factory without confirmed arrangements with the dealer or distributor who sold you the product.



Serial No: -----