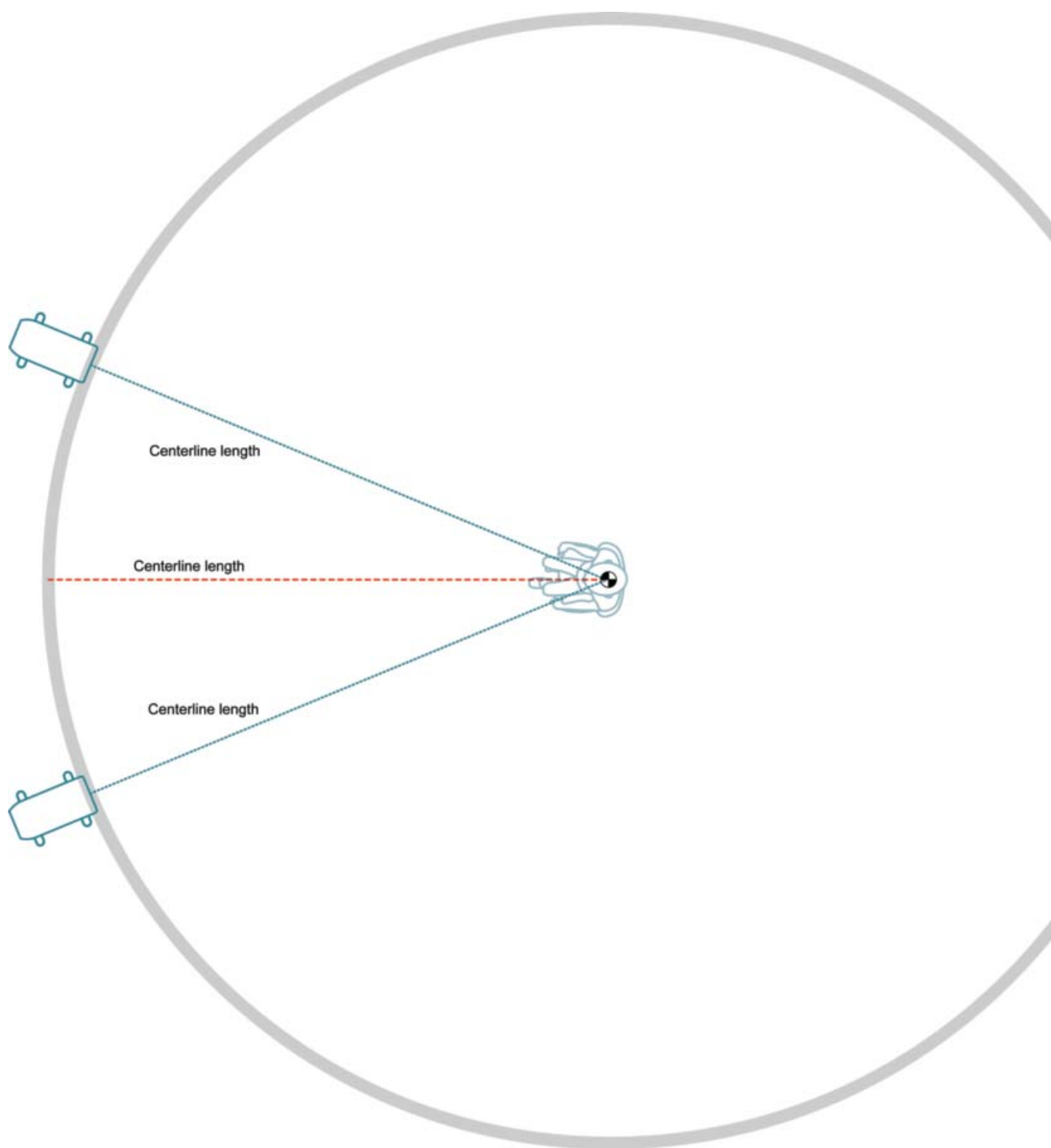


Owners Manual
The Gryphon Pantheon
Speaker System

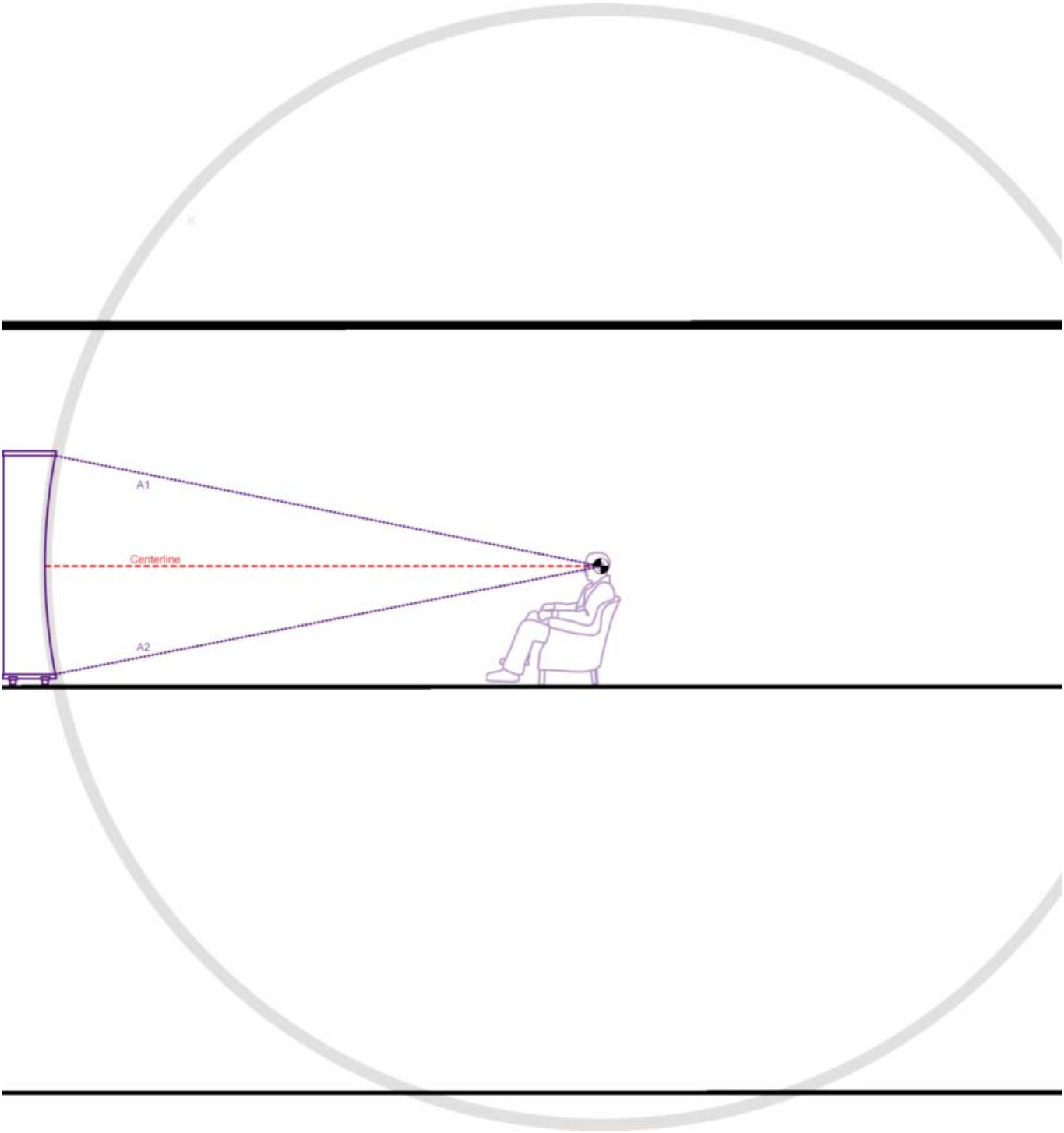


Version 1 August 2014

Pantheon set-up, top view



Pantheon set-up, side view
Note how curve on speaker front is matching the circle.



The Gryphon Pantheon loudspeaker system

Pantheon – Fabled island with advanced technologies given by the sea god Poseidon to his mortal wife

Welcome to our world

Words by Flemming E. Rasmussen, CEO and Founder of Gryphon Audio Designs

Nearly two decades have passed since the first Gryphon saw the light of day. It wasn't a case of planned parenthood, more an inevitable love child - the fruit of a long-standing love affair with music and audio.

Gryphon embarked on a long journey back then, made long not by detours, but simply because our destination is so far away. I have always believed that we experience music with our hearts as much as with our ears. For me, the ultimate test is very simple - the music must reach out and touch the heart. Looking back over those twenty years, I must confess that Gryphon has always developed the audio products that I personally needed and wanted. Nothing was ever built to meet a demand defined by market research. Some might find that arrogant and perhaps it is, but I prefer to see it as an honest approach, while accepting that not everyone shares my point of view.

Fortunately, the passing years have proven that there is a sufficiently large group of like-minded individuals around the world who have come together in this common quest.

I would like to take this opportunity to personally thank all of you who have shared this journey with me.

Down through the years, Gryphon has expanded from a single Head Amplifier to encompass the full audio spectrum with the definitive music playback system. This didn't happen because we can do everything ourselves, but because we recognize quality when we encounter it and have the ability to assemble a team of dedicated specialists for each new project. The Gryphon company - like its products - is greater than the sum of its parts.

There is certainly a family resemblance across the Gryphon range and by that we mean more than mere technology. We like to think that Gryphon is not perceived as Class A amplifiers, upsampling CD players or silver cables, but more as a degree of quality, a sense of "rightness" that brings it all home for you. And you don't reach that place by following your ears, only by following your heart.

In responding to queries as to why Gryphon took the major step of expanding into the field of loudspeaker design, the temptation is to take the easy way out with a flippant reply like "Because it's there." But the simple fact is that, having earned a global reputation for unsurpassed excellence in amplification, it was a natural evolutionary move to broaden our scope and turn our attention to the other links in the audio chain.

Beginning with source compo-



Flemming E. Rasmussen



nents, Gryphon designed the world's first single-chassis CD player with onboard upsampling. The third generation of this innovative technology, the Gryphon Mikado, has won numerous awards around the world. The next logical step was to apply the uncompromising Gryphon take-no-prisoners approach to the final link in the chain. But this decision was by no means made on the spur of the moment.

In fact, the Gryphon speaker adventure began nearly 18 years ago with a chance encounter between Gryphon founder Flemming E. Rasmussen and Steen Duelund, a Danish mathematician who has dedicated his professional life to loudspeaker theory.



Steen Duelund 1943 -2005



Lars Matthisen, Chief Acoustic adviser at Gryphon, carrier of the Duelund flame.

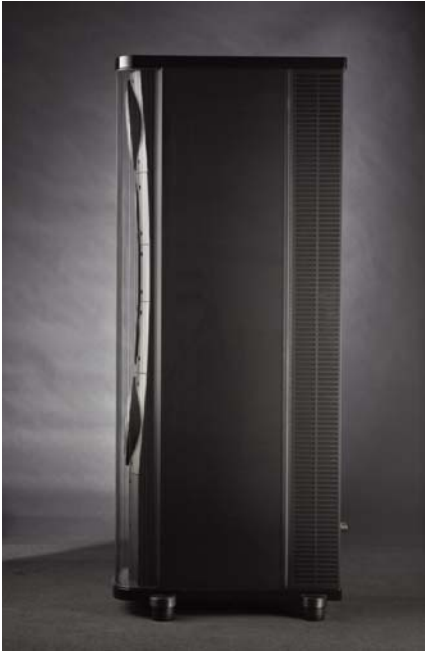
Duelund's theories on constant phase in crossover networks can be summed up in a single statement: "All drivers must be in phase at all times at all frequencies." Following this theoretical "Eureka," the hard part then becomes making that happen in a real room with a real loudspeaker. Initially on a strictly informal basis, an in-depth exploration was undertaken that would take full advantage of Gryphon's assembled expertise and extensive experience in design and manufacturing to transform Duelund's theories into real-world products with scant regard for such minor details as pricing, parts availability, prevailing attitudes and preconceived notions.

Imperfect Drivers

The first step was to acknowledge that the greatest challenge facing loudspeaker designers was the simple fact that dynamic drive units are by nature fundamentally flawed and compromised. Many driver designs defy all sound design principles, because they are the result of penny-pinching exercises under heavy market pressure to deliver "acceptable" performance at the lowest price. There is little motivation to allocate resources to making drivers that are truly the best that they can be.

In order for the mission to succeed, Rasmussen and his hand-picked design team began from scratch with driver design, literally building by hand drivers with baskets that did not introduce compression, hand-made multi-laminate cones, exotic home-brew coatings, adjustable wire suspension to replace the conventional spider, heavy-duty magnetic systems, ventilated pole pieces, machined phase plugs and special surrounds to optimize the transition between cone and baffle. All edges were beveled for a deliberate aerodynamic profile. Double wiring was employed on the cones to ensure perfect symmetry. The list of breakthroughs goes on and on.

Every aspect of driver design, assembly and function was thoroughly investigated without prejudice and with scant respect for received wisdom, which often proved to be ill-founded dogma formulated by



individuals promoting their own specific agendas.

The end result was drive units with extremely low Q , high power handling, no dynamic compression and a linear pistononic range that pushed back the limits of driver design.

In order to live up to the uncompromising design goal of perfect phase all the time at all frequencies, the enclosure incorporated a concave curved front to form a direct angled, time-aligned system with identical distance from the listener to the acoustic center of each driver.



The finished loudspeakers can only be described as an open window, utterly transparent to the original recorded event with equally remarkable dynamic headroom that re-creates the true power and full weight of live music, both in details such as a drum rimshot and in the effortless expansion of an orchestral crescendo in a large-scale symphonic piece.

Gone were the sluggishness and "whitewashed" uniformity typical of loudspeakers with complex crossovers where 60% of the components are dedicated to the thankless task of compensating for the basic imperfections of inferior drivers. In such speakers, the crossover becomes a virtual "black hole," sucking up energy instead of conveying it to the drivers. The result is a neat and tidy musical presentation with everything apparently in its place and a listening experience that quickly

becomes tedious and uninspiring.

By the millennium, Gryphon had become firmly established as a major international player with a range of amplification components and CD players widely regarded as among the very best in the esoteric world of High End audio. Gryphon innovations included the world's first single-chassis CD player with onboard upsampling and critical system enhancements such as the acclaimed Exorcist, the world's first system demagnetizer, as well as a range of cables and accessories.





Owner's Manual

When You Have Purchased the Pantheon System Your authorized Gryphon dealer delivers and installs the Pantheon system. His staff has been meticulously schooled in the proper unpacking of the system and in the set-up of the system. Your dealer will return after a two-week break-in period for final adjustment.

After three months, your dealer will come back for a final check-up.

This service is included in the price of the Pantheon system and is crucial to optimizing system performance.

The Listening Room

This section outlines ideal room dimensions and speaker placement. Specific acoustic conditions may permit some deviation from these recommendations. Pantheon curved baffle is designed so that the sound from all drivers integrates at a point 5 m in front of the high frequency driver. (Think of the drivers as rows of spotlights all angled to illuminate the same spot.)

The cabinets should be at least 1 m from any side wall. We recommend as much distance from the backwall as possible.

Imagine a circle on the floor at a diameter of 10 meters with the listener in the middle. The Pantheon should be set up following the line of this circle forcing all the drivers to point direct at the listener at a distance of 5 meters. This is

the basic design formula and not all locations will allow this. We have tested Pantheon in a number of different room sizes from very small rooms to halls. What is important is in all cases to set the speakers up with a toe-in pointing direct at the listener.

Note: plush furnishings provide high acoustic damping, requiring greater system output.

Pantheon was developed in a 50 sq.m. room with typical acoustic damping corresponding to most modern residential spaces.

We do NOT recommend room treatments for added damping behind the loudspeakers. Some damping behind the listening position is recommended, especially if it is close to the rear wall.

Diffusion is generally a far better acoustic solution in that it removes unwanted reflections without restricting dynamics or exerting excessive influence on tonal balance. Because Pantheon design requires angling the cabinets in towards the listener, the influence of side walls is minimal. The curved baffles also reduce reflections from floor and ceiling. If the ceiling is low, a diffuser placed at the point of the first reflection may be useful. A rug on the floor between listener and speakers will help. The conventional coffee table in front of the listener is typically the source of most problems with unwanted reflections.

We strongly suggest that all effort are made to optimize



the acoustic properties of the room before any electronic manipulation (Room correction) is considered. - (no electronics are correcting any rooms, they manipulate the sound to compensate for poor acoustics).

We consider this to be the last resort.

Because of its design and comprehensive adaptability, Pantheon is nowhere near as demanding as other large speakers. However, because of Pantheon extreme phase linearity, you will discover that it is more revealing than any other loudspeaker.

Be prepared for a radical revision of everything you had previously learned about loudspeakers or heard from them.

Unpacking

Do NOT try to lift a cabinet out of the crate. Instead, remove the lower screws and remove tyhe upper part of the box, lift strait up and be careful not to scrtch the speaker.

CAUTION! Pantheon is a very heavy loudspeaker and should only be moved by 2-3 people to avoid damage or injury.

Set-Up

Pantheon is designed to form two hemispheres - one horizontal and one vertical. The vertical hemisphere is defined by the curvature of the front baffle.

The cabinets must be angled in so that they are aimed at the same point (ear level for a centrally placed listener), forming a curve in front of the listener. **PROPER PLACEMENT IS CENTRAL TO THE PANTHEON CONCEPT AND REQUIRES PATIENCE AND ATTENTION. TRADITIONAL**

WISDOM IS NOT THE ANSWER HERE.

The difference between the merely outstanding and the ultimate is a fine line.

Break-in

The Pantheon requires at least 100 hours of break-in. Do NOT use special break-in discs. Often, they tend to result in break-down instead. Choose dynamic music instead. Michael Jackson is a popular choice for burn-in purposes, ...

Tweak alert

Pantheon is the fruit of an extremely protracted, very open-minded development process. We assure you that it is not possible to improve this system by replacing a few lengths of wire or a capacitor. Remember - most critical components are not just specially selected - they are specially developed specifically for the Pantheon.

X-over biasing

By biasing the electrolyte capacitors with a dc voltage, connected to the joined node of a bipolar coupled electrolytic capacitor, the following advantage is obtained. The electrolyte capacitor's "memory effect", which is disturbing the zero crossing of the music signal, is removed or at least reduced. In other words, the music signal is passing the biased bipolar capacitor with less coloration than an unbiased electrolyte capacitor.

To check if the biasing is active you can test it on the switch on the backside. A ILED



will light up indicating that the bias is active. If the LED does not light on, it is time to replace the battery.

The speaker will still perform with a dead battery.

The batteries will last 1 - 2 years.

Checking the batteries is actually consuming more power than the constant biasing.

Battery type:

PP3

9 volt (x 2)

Pantheon Speaker system performance:

Frequency response:

26Hz - 32.000 kHz +/- 3db.

Room dependent

X-over freq: 280/2300Hz. 4th. order acoustical Duelund CP

Sensitivity:

89db /2.83v.

Nominal impedance 4 ohm

W: 29 cm,

D: 61 cm (+2,5 cm incl. terminals),

H: 146,5 cm

shipping weight: 122 kg each

Flemming E. Rasmussen and the Pantheon design crew take immense satisfaction in this new addition to the history of the company.

When the privileged owner of the Pantheon sits back and experiences how music rises above technology as walls fade away and a direct connection is made to the very souls of the performers, we know that our work is done and we take great pride in it. We have made the loudspeakers disappear, leaving in its place the only thing that really matters... **Music.**



Warranty

The Gryphon Pantheon is warranted against failures arising through faulty workmanship and materials for a period of 3 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.

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

